Catalog Home

Office of the Registrar
Indiana University – Purdue University Fort Wayne
2101 E. Coliseum Blvd.
Fort Wayne, IN 46805-1499

About IPFW

Indiana University – Purdue University Fort Wayne (IPFW) is the largest institution of higher learning in northeast Indiana, offering nearly 200 prestigious IU and Purdue degrees and certificates. More than 13,000 students of diverse ages, races, and nationalities pursue their education on our 662-acre campus. IPFW combines challenging academic programs with student – changing global market. The university's commitment to service makes it an economic, cultural, and societal leader in the region. IPFW is an Equal Opportunity/Equal Access University accredited by The Higher Learning Commission of the North Central Association of Colleges and Schools.

Frequently Asked Questions

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Where is the campus map?

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Chancellor's Message

Welcome to IPFW:

 Thank you for choosing Indiana University–Purdue University Fort Wayne for your undergraduate studies. You're certain to find a course of study to your liking among the more than 200 academic programs at IPFW. Our programs will meet and even exceed your expectations.

 Faculty at IPFW are not just dedicated teachers, they are also nationally and internationally known scholars and researchers. You can be certain that the program you select will be of the highest quality. The professional accreditation of specific programs gives you further assurance that these degrees have met recognized national standards.

 Undergraduate programs at IPFW prepare you for life, whether that means you enter the workforce in your chosen field or you continue your studies at the graduate level. Many programs offer unique theoretical and hands-on learning experiences that draw on community resources. IPFW's small class sizes give you and your professors the opportunity to discuss issues and class assignments, or perhaps even collaborate on a research project.

 Your undergraduate experience doesn't have to be all about books and classrooms; it can be wonderfully enriched if you decide to get involved in any of the nearly 100 student organizations, NCAA Division I or intramural sports, or other special-interest activities. The Student Handbook and Planner *provides details on how you can get involved.*

 Please remember that university services and support programs are for all students. The recreational facilities of Gates Sports Center, resources of Helmke Library, musical performances at The John and Ruth Rhinehart Music Center, plays at Williams Theatre, and job placement services through Career Services are just a few of the opportunities available to you.

 Best wishes for achieving your personal and career goals through your studies at IPFW.

 Sincerely,

Michael A. Wartell
Chancellor

Part 1: IPFW Profile

Click on a link to be taken to the entry below.

About this Bulletin

The *Bulletin* provides information about the undergraduate programs, rules, courses, and faculty of Indiana University–Purdue University Fort Wayne. Information about IPFW's graduate programs appears in a separate publication, the *IPFW Graduate Bulletin*.

Information in the *Bulletin* will help students make important choices about their education, and it will familiarize them with the many important services IPFW provides. Since the *Bulletin* is a primary resource for making decisions about an IPFW education, it is important for students to refer to it throughout their tenure at the university.

Changes occur as needs arise. Changes in rules and procedures generally become effective at the time they are published. Also, new or changed academic program requirements may provide you with additional options. Because of this, you should review statements on IPFW services, policies, programs, and courses in each new edition of the *Bulletin* published while you are a student. When you enter a degree or certificate program, you will be required to fulfill the requirements published in the *Bulletin* (or its supplement or departmental regulation) current at the time of your most recent entry or re-entry into that program at IPFW. Only with the written acknowledgment of your academic advisor can you elect to fulfill the requirements in any subsequent *Bulletin* or supplement. Your academic advisor can assist you with this choice and ensure that such changes are officially recorded.

NOTE: The information in this *Bulletin* is subject to change without notice. Actions by federal and state governments and the boards of trustees, administration, and faculty of the universities may produce such changes.

About the University

Indiana University–Purdue University Fort Wayne offers more academic and extracurricular opportunities than any other higher education institution in northeast Indiana. A joint campus of two internationally recognized Big Ten schools, IPFW grants both Indiana University and Purdue University degrees.

IPFW reflects the IU and Purdue commitments to excellence in teaching, research, and service. The university takes advantage of the latest technologies in order to enhance information exchange, classroom instruction, research, and communications. Indiana University and Purdue University carry traditions of distinction in humanities, the arts, health sciences, social sciences, engineering, technology, and computer science.

IPFW provides access to an excellent education through academic diversity, flexibility, and affordability. IPFW students have access to superior research, academic, and extracurricular pursuits. IPFW is committed to the continued educational, economic, and cultural development of its 11-county service area.

More than 13,000 students are enrolled in more than 200 academic programs. The university offers undergraduate and graduate degrees as well as certificate options. Some 19,000 additional students pursue noncredit continuing education courses. While the diverse student body continues to grow, the average class size remains 22.

The university is accredited by The Higher Learning Commission of the North Central Association of Colleges and Schools. Various schools, divisions, and programs have earned additional accreditation through professional societies.

IPFW history. The history of IPFW is a history of mergers. IPFW has steadily evolved since the initial merger of the IU and Purdue Fort Wayne regional campuses in 1964. A gift of additional land by a consortium of local donors has increased the size of the campus to 662 acres, including land on the east and west banks of the St. Joseph River. Physically, the university has grown from a single building into a multicampus community cornerstone, offering an unparalleled range of educational and cultural opportunities.

Academic programs. Degree and certificate programs are offered through nine colleges, schools, or divisions. Arts and Sciences, Health and Human Services, and Visual and Performing Arts contain departments offering both IU and Purdue degree programs. Engineering, Technology, and Computer Science offers only Purdue degree programs; Business and Management Sciences, Education, General Studies, Labor Studies, and Public and Environmental Affairs, only IU. The Academic Success Center serves lower-division students who have not chosen a degree program. The Division of Continuing Studies offers credit and noncredit programs throughout northeast Indiana in cooperation with degree-granting schools and divisions. Other entities, such as the Indiana University School of Medicine–Fort Wayne, offer programs at IPFW with varying degrees of campus affiliation. IPFW also offers the opportunity to participate in the Army Reserve Officer Training Corps (ROTC) program.

IPFW stresses a constructive relationship between teaching and research. Most IPFW faculty members devote 25 percent of their effort to research. Faculty regularly acquire support for creative endeavor in the form of external grants and contracts of about $5 million a year. Some faculty receive support from internally funded summer fellowships and grants-in-aid, and additional support is available through the Purdue and IU systems. Research activities reflect the research missions of Indiana and Purdue Universities. However, projects tend to involve individuals or small groups of researchers rather than large staffs and facilities, and special emphasis is placed on studies directly related to regional needs and interests. Faculty are encouraged to involve undergraduate students in research projects.

Core mission. The core mission of IPFW is to provide quality post-secondary education in northeast Indiana by focusing on student learning, while fostering intellectual exploration and attainment, and serving the region.

IPFW goals. Long-range goals of the university include continued improvement of academic programs, expanded faculty development programs, enhanced library collections and services, increased university and external support for research, increased academic and fiscal autonomy, attraction and retention of a more heterogeneous student body, expansion of graduate programs that serve regional needs, active support for regional economic development programs, and greater integration with the economic and cultural communities of the region.

The fifth-largest university in Indiana, IPFW has grown without sacrificing its commitment to faculty-student interaction. Quality of teaching will continue to be a major criterion for faculty compensation and promotion-and-tenure decisions and will be recognized through awards for distinguished teaching. To attract and retain outstanding teachers, IPFW will continue its effort to provide competitive levels of faculty compensation.

IPFW will also sustain and enhance support of faculty research and will expand opportunities for students to participate in research projects. The university will promote the use of technology as a feature of university education across the curriculum.

IPFW is committed to preparing students of northeast Indiana for productive lives in a multicultural, changing world. Special attention is given to bringing a university education to nontraditional students. The campus will expand efforts to increase matriculation and retention of minority students, and in a related effort, to hire and retain minority faculty.

The campus will continue to build programs of academic support for all students, including those programs intended for students of outstanding ability. Because the diversity of the student body and staff is an essential component of the university experience, IPFW also intends to attract a somewhat larger number of students from outside the region. To this end, and to accommodate verifiable local demand, IPFW Student Housing on the Waterfield Campus, with apartment-style floor plans, opened in August 2004.

IPFW plays an important role in the cultural and economic life of northeast Indiana. Faculty community service is and will continue to be encouraged. The university maintains and expects to strengthen relationships with community arts organizations and seeks additional opportunities to serve as a vital resource for business, industry, public and private

education, and government in northeast Indiana. Retraining of the workforce and response to changes in the economy will be important priorities in years to come, as will efforts to improve services for an increasingly diverse student body. The campus seeks to organize its efforts and relationships with IU and Purdue in ways that will enhance its ability to anticipate and respond to regional needs. The continued development of the campus, with community support engendered by this development, will allow IPFW to meet the increasing demand for higher education in northeast Indiana.

Assessment of student learning. IPFW is committed to providing quality education and to assuring students gain the knowledge and skills necessary to be successful. Assessment of student learning provides the information we need to make improvements in program structure, course content, and pedagogy. To this end, information is collected at the classroom, department, and institution levels. For example, students may be asked to submit examples of their course work and engage in focus groups. They may also be asked to complete a questionnaire assessing the quality of academic services. These activities help us determine the extent to which students demonstrate competency in the Baccalaureate Framework areas, in the major field of study, and in General Education.

IPFW statements on diversity. During fall semester 1994, Chancellor Michael Wartell established the following campus statement on diversity:

Indiana University–Purdue University Fort Wayne recognizes, affirms, and celebrates the diversity in its campus, local, state, and national communities. Each member of these communities represents varied and different cultures and attributes simultaneously, yet because of these differences, many have been systematically excluded from full, fair, and respected participation in higher education. Therefore, Indiana University–Purdue University Fort Wayne seeks to demonstrate through its curriculum, support systems, and policies that it values these differences, creating and maintaining a campus environment that welcomes diverse characteristics, backgrounds, and experiences and identifying such diversity as a vital source of the intellectual, social, and personal growth essential to a university education.

To implement the above statement, Chancellor Wartell appointed the campus Diversity Council. In fall 1995, the Diversity Council published the following definition of diversity:

The Diversity Council is committed to creating an environment that enhances learning by recognizing the inherent worth of all individuals at the university. It is our conviction that diversity stimulates creativity, promotes the exchange of ideas, and enriches campus life. Diversity involves the differences among individuals that reflect the cultures from which the university draws strength, including, but not necessarily limited to, differences of race, ethnicity, color, gender, sexual orientation, class, age, and disabilities, as well as political and religious affiliation, and socioeconomic status increasing demand for higher education in northeast Indiana.

Baccalaureate Framework

In April 2006, the Faculty Senate approved a framework of core learning principles expected of all IPFW baccalaureate degree students. The Baccalaureate Framework is a statement containing six educational values and expectations for student learning. The Goals of Learning allow students to graduate from IPFW and appreciate how to:

- **Know:** A depth of knowledge in one field and a breadth across multiple areas

- **Value:** Personal integrity and ethical action

- **Think:** Resourceful critical thinking and problem-solving

- **Apply:** Life-long application of knowledge using appropriate technologies

- **Communicate:** Effective communication skills with multiple media

- **Lead:** Citizenship and leadership in diverse communities

Additional information can be found at www.ipfw.edu/academics/programs/undergraduate/framework.shtml

Undergraduate Programs: Degrees, Certificates, Minors, and Transfers

IPFW is accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools. Information about North Central accreditation is available from the vice chancellor for academic affairs (KT 170, 260-481-6805). You may also contact the Higher Learning Commission directly at www.ncahlc.org; or by writing to 30 North LaSalle St., Suite 2400, Chicago, IL 60602-2504; or by phone at 800-621-7440.

The following is an alphabetical list of all undergraduate degree, certificate, minor, and transfer programs available at IPFW.

- A *degree* is an award earned by satisfactorily completing a specified program of courses and adhering to the applicable academic regulations. Each degree includes one or more major fields of study. Completion of a degree program is acknowledged by receipt of a diploma. The two most common degrees earned by IPFW students are the associate degree (abbreviated A.A. for Associate of Arts and A.S. for Associate of Science) and the bachelor's degree (abbreviated B.A. for Bachelor of Arts and B.S. for Bachelor of Science). Earning an associate degree requires at least two years of full-time study, with a longer period if enrolled only part time. Earning a bachelor's degree takes about twice as long.
- A *certificate* is not a college degree, but is composed of a series of courses that focus on a specialized area of knowledge or specific skills. The university recognizes completion of the required courses and satisfaction of applicable academic regulations by awarding a certificate.
- A *minor* is a less comprehensive program of study that is chosen in conjunction with a major field of study. To earn a minor, the student must complete a degree program in a different subject area.
- A *transfer* program is a series of courses that will apply toward a degree to be awarded by another campus of IU or Purdue. Credits for these courses can be transferred to the other campus, but students are required to satisfy the admission and graduation requirements of the campus to which they transfer.

College, school or division codes in the following list are as follows:

ANS:	Arts and Sciences	**HS:**	Health and Human Services
BMS:	Business and Management Sciences	**LS:**	Labor Studies
CS:	Continuing Studies	**PEA:**	Public and Environmental Affairs
EDUC ETCS:	Education	**VPA:**	Visual and Performing Arts
	Engineering, Technology, and Computer Science		

Program	University	College or School or Division/Department	Degree/Certificate
Accounting	I	BMS/Accounting and Finance	Post-Baccalaureate Certificate i Accounting
Advanced Microprocessors	P	ETCS/Computer and Electrical Engineering Technology & Information Systems and Technology	Certificate
Agriculture	P	ANS	Transfer Programs

American Studies	I	ANS	Certificate in American Studies
Anthropology	I	ANS/Anthropology	B.A., Minor, Research Certifica Anthropology
Applied Ethics	P	ANS/Philosophy	Minor
Architectural Engineering Technology	P	ETCS/Manufacturing & Construction Engineering Technology and Interior Design	A.S.
Art Education	I	VPA/Fine Arts	B.A.
Art History	I	VPA/Fine Arts	Minor
Arts	I, P	ANS	A.A.
Biology	P	ANS/Biology	A.A., B.S., Minor, Research Certificate
Biology Teaching	P	ANS/Biology	B.S.
Business	I	BMS	A.S.B., B.S.B.
Business Studies	I	BMS	Minor
Chemical Methods	P	ANS/Chemistry	A.S.
Chemistry	P	ANS/Chemistry	B.S., B.S.C., Minor, Research Certificate
Chemistry Teaching	P	ANS/Chemistry	B.S.
Civic Education and Public Advocacy	I	ANS/Political Science	Certificate in Civic Education a Public Advocacy
Civil Engineering	P	ETCS/Engineering	B.S.C.E.
Civil Engineering Technology	P	ETCS/Manufacturing & Construction Engineering Technology and Interior Design	A.S.
Commercial Art	I	VPA/Visual Communication and Design	A.S. in Commercial Art
Communication Sciences & Disorders	P	ANS/Communication Sciences & Disorders	B.S.
Communication Studies	P	ANS/Communication	Minor
Computer-Controlled Systems	P	ETCS/Computer and Electrical Engineering Technology & Information Systems and Technology	Certificate
Computer Engineering	P	ETCS/Engineering	B.S.Comp.E.

Computer Engineering Technology	P	ETCS/Computer and Electrical Engineering Technology & Information Systems and Technology	B.S.
Computer Networking	P	ETCS/Computer and Electrical Engineering Technology & Information Systems and Technology	Certificate
Computer Science	P	ETCS/Computer Science	B.S., Minor
Computer Science	P	ANS/Mathematical Sciences	B.A.
Construction Engineering Technology	P	ETCS/Manufacturing & Construction Engineering Technology and Interior Design	B.S.
Consumer and Family Sciences	P	HS/Consumer and Family Sciences	Transfer Program
Creative Writing	I	ANS/English and Linguistics	Minor
Criminal Justice	I	PEA	Minor
Critical Care Nursing	P	HS/Nursing	Certificate (Pending Curriculum Changes)
Cytotechnology	I	HS	Transfer Program
Dance	P	VPA/Theatre	Minor
Dental Assisting	I	HS/Dental Education	Certificate in Dental Assisting
Dental Hygiene	I	HS/Dental Education	A.S. in Dental Hygiene
Dental Laboratory Technology	I	HS/Dental Education	A.S. in Dental Laboratory Technology
Early Childhood Education	I	EDUC/Educational Studies	A.S.Ed.
Economics	I	ANS/Political Science	B.A., Minor
Electrical Engineering	P	ETCS/Engineering	B.S.E.E.
Electrical Engineering Technology	P	ETCS/Computer and Electrical Engineering Technology & Information Systems and Technology	A.S., B.S.
Electronic Communications	P	ETCS/Computer and Electrical Engineering Technology & Information Systems and Technology	Certificate
Electronics	P	ETCS/Computer and Electrical Engineering Technology & Information Systems and Technology	Minor
Elementary Education	I	EDUC/Educational Studies	B.S.Ed.
English	I	ANS/English and Linguistics	A.A., B.A., Minor

Ethnic and Cultural Studies	I	ANS	Certificate in Ethnic and Cultural Studies
Film and Media Studies	I	ANS/Communication	Minor
Fine Arts	I	VPA/Fine Arts	B.A., B.F.A., Minor
Fine Arts	I	VPA/Visual Communication and Design	B.F.A., Minor
Folklore	I	ANS/English and Linguistics	Minor
Forestry and Natural Resources	P	ANS	Transfer Program
French	I	ANS/International Language and Culture Studies	A.A., B.A., Minor
General Studies	I	CS	A.A.G.S., B.G.S.
Geology	I	ANS/Geosciences	B.A., B.S.G., Minor
German	I	ANS/International Language and Culture Studies	A.A., B.A., Minor
Gerontology	I	ANS	Certificate in Gerontology
Health Information Administration	I	HS	Transfer Program
History	I	ANS/History	A.A., B.A., Minor
Honors Program	I, P	OAA/Honors	Certificate
Hospitality Management	P	HS/Consumer and Family Sciences	B.S.
Human Services	P	HS/Human Services	B.S., Minor
Industrial Engineering Technology	P	ETCS/Manufacturing & Construction Engineering Technology and Interior Design	A.S., B.S.
Infomatics	P	ETCS/Computer Sciences	Minor
Information Systems	P	ETCS/Computer and Electrical Engineering Technology & Information Systems and Technology	A.S., B.S., Minor
Interior Design	P	ETCS/Manufacturing & Construction Engineering Technology and Interior Design	A.S., B.S.
International Studies	I	ANS	Certificate in International Studies
Interpersonal and Organizational Communication	P	ANS/Communication	B.A.
Journalism	I	ANS/Journalism	Minor, Transfer Program

Labor Studies	I	Labor Studies	A.S.L.S., B.S.L.S., Certificate in Labor Studies, Minor
Linguistics	I	ANS/English and Linguistics	Minor
Manufacturing Management	P	ETCS/Manufacturing & Construction Engineering Technology and Interior Design	Certificate
Mathematics	P	ANS/Mathematical Sciences	A.A., B.S., Minor, Research Certificate
Mathematics Teaching	P	ANS/Mathematical Sciences	B.S.
Mechanical Engineering	P	ETCS/Engineering	B.S.M.E
Mechanical Engineering Technology	P	ETCS/Manufacturing & Construction Engineering Technology and Interior Design	A.S., B.S.
Media and Public Communication	P	ANS/Communication	B.A.
Media Production	P	ANS/Communication	Minor
Medical Imaging Technology	I	HS	Transfer Program
Medical Technology	P	ANS/Biology	B.S.
Music and an Outside Field	I	VPA/Music	B.S.
Music Education	I	VPA/Music	B.M.E.
Music (Performance)	I	VPA/Music	B.M.
Music Therapy	I	VPA/Music	B.S.M.T.
Native American Studies	I	ANS	Certificate in Native American Studies
Nuclear Medicine	I	HS	Transfer Program
Nursing	P	HS/Nursing	B.S., LPN B.S., RN–B.S.
Occupational Therapy	I	HS	Transfer Program
Organizational Leadership and Supervision	P	ETCS/Division of Organizational Leadership and Supervision	A.S., B.S., Minor
Paramedic Sciences	I	HS	Transfer Program
Peace and Conflict Studies	I	ANS	Certificate in Peace and Conflict Studies

Philosophy	P	ANS/Philosophy	B.A., Minor
Physical Therapy	I	HS	Transfer Program
Physics	P	ANS/Physics	B.S., Minor, Research Certifica
Physics Teaching	P	ANS/Physics	B.S.
Piano Pedagogy	I	VPA/Music	Certificate in Piano Pedagogy
Political Science	I	ANS/Political Science	A.A., B.A., Minor
Prepharmacy	P	ANS	Transfer Program
Preveterinary	P	ANS	Transfer Program
Preveterinary Technology	P	ANS	Transfer Program
Professional Writing	I	ANS/English and Linguistics	Minor
Psychology	P	ANS/Psychology	A.A., B.A., Minor, Research Certificate
Public Affairs	I	PEA	Minor
Public Affairs: Criminal Justice	I	PEA	B.S.P.A.
Public Affairs: Environmental Policy	I	PEA	B.S.P.A.
Public Affairs: Health Services Administration	I	PEA	B.S.P.A.
Public Affairs: Legal Studies	I	PEA	B.S.P.A.
Public Affairs: Public Management	I	PEA	B.S.P.A.
Public Affairs: Specialized Study	I	PEA	B.S.P.A.
Public Relations	I	ANS	Minor
Quality	P	ETCS/Manufacturing & Construction Engineering Technology and Interior Design	Certificate
Radiation Therapy	I	HS	Transfer Program
Radiography	I	HS	A.S.R.
Religious Studies	P	ANS/Philosophy	Minor

Program	I/P	Department	Degree
Respiratory Therapy	I	HS	Transfer Program
Risk and Emergency Management	I	PEA	Certificate in Risk and Emergency Management
Secondary Education	I	EDUC/Educational Studies	B.S.Ed.
Sociology	I	ANS/Sociology	B.A., Minor
Spanish	I	ANS/International Language and Culture Studies	A.A., B.A., Minor
Supervisory Leadership	P	ETCS/Division of Organizational Leadership and Supervision	Certificate
Teaching English as a New Language	I	ANS/English and Linguistics	Certificate in Teaching English as a New Language
Theatre	P	VPA/Theatre	B.A., Minor
Theatre Teaching	P	VPA/Theatre	Minor
Women's Studies	I, P	ANS	A.A., B.A., Certificate in Women's Studies, Minor

IPFW Office Directory

Campus Emergencies–Police (SS 102)	**481-6911**
Campus Emergencies–Medical	**481-6911**
Weather-related Announcements	**481-6050**
Campus General Information/Switchboard (KT 153A)	**481-6100**
Academic Success Center (KT 109)	**481-6595**
Academic Support and Advancement, Center for (KT G23)	**481-6817**
Admissions (KT 111)	**481-6812**
Affirmative Action/Equal Opportunity (KT 110N)	**481-6106**
Athletics, Recreation, and Intramural Sports (GC 201)	**481-6643**
Athletics–Reservation Desk (GC 210)	**481-6655**
Bookstore (KT G10)	**483-6100**

Bursar (KT G57)	**481-6824**
Campus Safety (WU 127)	**481-6610**
Career Services (KT 109)	**481-6595**
Child Care–The Learning Community (2041 Reed Road)	**424-8852**
Continuing Studies (KT 145)	**481-6619**
Off-Campus Credit Programs (KT 145)	**481-6111**
Dean of Students (WU 111)	**481-6601**
Disabilities, Services for Students with (WU 118)	**481-6832**
Diversity and Multicultural Affairs (WU 118)	**481-6608**
Financial Aid (KT 103)	**481-6820**
Graduate Studies (KT 108A)	**481-6795**
Honors Program (WU G25)	**481-6924**
International Student Services (KT 104)	**481-6034**
IPFW Theatre Box Office (WT 124A)	**481-6555**
Library, Walter E. Helmke (LB 148)	**481-6512**
Mastodon Advising Center (KT 109)	**481-6595**
Mastodon Academic Performance Center (KT 109)	**481-6595**
Military Science (DN 192)	**481-0154**
Office of Academic Internships, Cooperative Education, and Service Learning (OACS) (NF 337)	**481-6939**
Registrar (KT 107)	**481-6815**
Student Life (WU 115)	**481-6609**
Student Government Association (WU 225)	**481-6586**
Veterans Benefits Representative (KT 107)	**481-6126**
University Police (SS 102)	**481-6900**
Women and Returning Adults, Center for (WU 120)	**481-6029**

Writing Center (KT G19)　　　　　　　　　　　　　　**481-5740**

Colleges, Schools, and Divisions

College of Arts and Sciences (LA 153)　　　　　　　**481-6160**

Doermer School of Business and Management Sciences (NF 360)　　**481-6472**

Division of Continuing Studies (KT 144)　　　　　**481-6619**

School of Education (NF 250B)　　　　　　　　　　**481-6441**

College of Engineering, Technology, and Computer Science (ET 243B)　**481-6839**

College of Health and Human Services (NF 142)　　**481-6967**

Division of Labor Studies (KT G28)　　　　　　　**481-6831**

Division of Public and Environmental Affairs (NF 260)　　**481-6351**

College of Visual and Performing Arts (VA 102)　　**481-6977**

IPFW Bookstore Hours (fall/spring)

Monday–Thursday	8:30 a.m.–7:30 p.m.
Friday	8:30 a.m.–3 p.m.
Saturday	10 a.m.–1 p.m.

Helmke Library Hours (fall/spring)

Monday–Thursday	8 a.m.–11 p.m.
Friday	8 a.m.–6 p.m.
Saturday	9 a.m.–6 p.m.
Sunday	noon–11 p.m.

Part 2: General Education Requirements

Click on a link to be taken to the entry below.

- Area I: Linguistic and Numerical Foundations
- Area II: Natural and Physical Sciences
- Area III: The Individual, Culture, and Society
- Area IV: Humanistic Thought
- Area V: Creative and Artistic Expression

- Area VI: Inquiry and Analysis
- Subject Area Abbreviation Key

Principles of General Education

General Education ensures that, upon graduation, students will be familiar with the important modes of human thought that are the foundations of science, philosophy, art, and social behavior. General Education expects students to understand the traditions that have informed one's own and other cultures of the world.

In order to do so, General Education at IPFW defines an integrated pedagogical framework for courses taken outside the student's major discipline. Furthermore, General Education-approved courses may be foundational or advanced, the goals of the General Education requirements are achieved through cumulative course work.

Therefore, students who have completed the General Education requirements at IPFW are expected:

To be familiar with the important modes of human thought that are the foundations of science, philosophy, art and social behavior.

To possess effective foundation skills:

- Read, write, and speak with comprehension, clarity, and precision
- Identify substantive knowledge and disciplinary methods
- Develop information literary skills.
- Reason quantitatively (as means of gaining and creating knowledge and drawing reliable conclusions)

To demonstrate the ability to think critically and to solve problems using the foundation skills:

- Evaluate their ideas and the ideas of others based upon disciplined reasoning.
- Understand the traditions that have formed one's own and other cultures.
- Be able to articulate their ideas in appropriate media.

To complete a research/creative project outside the student's major discipline that requires synthesizing knowledge and applying skills gained.

Students who entered IPFW for the first time in fall 1995 or a subsequent term in a bachelor's degree program, or transferred into a new bachelor's degree program, are required to satisfy IPFW's General Education program as part of their degree requirements. The courses listed below may be used to satisfy these requirements. The student's advisor will know of any courses that have been added to this list.

Students should check specific college, school or division requirements to determine if any special conditions about Gneral Education apply to their major. Under certain circumstances, students may be allowed to substitute courses for those listed below. An academic advisor will explain the procedure for requesting a substitution.

The General Education Web site is www.ipfw.edu/academics/gened.

See the Subject Area Abbreviation Key at the end of this section to determine the subject area under which the course falls, (e.g., ENG W131 falls under English)

Area I: Linguistic and Numerical Foundations

(9 credits)

Course List:

Area II: Natural and Physical Sciences

One approved General Education course in the major discipline may be counted toward fulfillment of Areas II-V.

(6 credits)

Course List:

Area III: The Individual, Culture, and Society

One approved General Education course in the major discipline may be counted toward fulfillment of Areas II-V.

(6 credits)

Course List:

Area IV: Humanistic Thought

One approved General Education course in the major discipline may be counted toward fulfillment of Areas II-V.

(6 credits)

Course List:

Area V: Creative and Artistic Expression (3 credits)

One approved General Education course in the major discipline may be counted toward fulfillment of Areas II-V.

(3 credits)

Course List:

Area VI: Inquiry and Analysis

All students completing a bachelor's degree program at IPFW must complete the AREA VI General Education course at IPFW.

(3 credits)

Course List:

Subject Area Abbreviation Key

A&AE	Aerodynamics and Aeronautical Engineering
ACE	Adult Continuing Education
ACS	Applied Computer Science
AFRO	Afro-American Studies
AGR	Agriculture
AGRY	Agronomy
AHLT	Allied Health
AMST	American Studies
ANSC	Animal Sciences
ANTH	Anthropology
ARET	Architectural Engineering Technology
AST	Astronomy
BCHM	Biochemistry
BIOL	Biology
BUFW	Business-Fort Wayne
BUS	Business
CDFS	Child Development and Family Studies
CE	Civil Engineering
CET	Civil Engineering Technology
CFS	Consumer and Family Sciences
CHE	Chemical Engineering
CHM	Chemistry
CIMT	Computer-Integrated Manufacturing Technology
CLAS	Classical Studies
CMLT	Comparative Literature
CNET	Construction Engineering Technology
COAS	Arts and Sciences-General
COM	Communication
CPET	Computer Engineering Technology
CS	Computer Science
CSD	Communication Sciences & Disorders
CSR	Consumer Sciences and Retailing
DANC	Dance
DAST	Dental Assisting
DHYG	Dental Hygiene
DLTP	Dental Lab Technology
EALC	East Asian Language and Culture (Chinese)
ECON	Economics
EDUA	Education
EDUC	Education
ECE	Electrical Engineering
ECET	Electrical and Computer Engineering Technology
ENG	English

ENGR	Engineering
ENTM	Entomology
FILM	Film Studies
FINA	Fine Arts
FNN	Foods and Nutrition
FNR	Forestry and Natural Resources
FOLK	Folklore
FREN	French
FWAS	Fort Wayne Arts and Sciences
GEOG	Geography
GEOL	Geology
GER	German
GERN	Gerontology
HIST	History
HON	Honors
HORT	Horticulture
HPER	Health, Physical Education, and Recreation
HSCI	Health Sciences
HSRV	Human Services
HTM	Hotel, Restaurant, and Tourism Management
HUMA	Humanities
IDIS	Interdisciplinary Studies and Honors
IE	Industrial Engineering
IET	Industrial Engineering Technology
ILCS	International Language and Culture Studies
IM	Informatics
INTL	International Studies
INTR	Interior Design
JOUR	Journalism
LBST	Liberal Studies
LING	Linguistics
LSTU	Labor Studies
LTAM	Latin American Studies
MA	Mathematics
ME	Mechanical Engineering
MET	Mechanical Engineering Technology
MSE	Materials Engineering
MUS	Music
NUR	Nursing
OLS	Organizational Leadership and Supervision
PACS	Peace and Conflict Studies
PCTX	Pharmacology and Toxicology
PHIL	Philosophy
PHYS	Physics
POLS	Political Science
PSY	Psychology
REL	Religion
SLAV	Slavic Languages (Russian)
SLIS	Library and Information Science
SOC	Sociology
SPAN	Spanish
SPEA	Public and Environmental Affairs
STAT	Statistics
SWK	Social Work

TECH   Technology
THTR   Theatre
VCD   Visual Communication and Design
VICT   Victorian Studies
VM   Veterinary
WOST   Women's Studies

Part 3: TransferIN.net: Indiana Core Transfer Library

TransferIN.net: Indiana Core Transfer Library

What is the CTL?

Indiana is working to help you transfer college credits more easily. To enable students to connect college credits, Indiana has developed the Core Transfer Library (CTL) - a list of courses that will transfer among all Indiana public college and university campuses, assuming adequate grades.

Core Transfer Library courses will meet the general or free elective requirements of undergraduate degree programs, and most CTL courses will also count toward degree program requirements - if an equivalent course is taught at your new campus.

At the time of publication, the IPFW courses listed below have been approved as part of the CTL. Additional courses are being added. For complete and up-to-date information, visit www.transferIN.net.

Course List:

- AST A100 - The Solar System Cr. 3.
- BIOL 10000 - Introduction to the Biological World Cr. 3.
- BIOL 10001 - Introduction to the Biological World Laboratory Cr. 1.
- BIOL 10500 - Medical Terminology Cr. 1.
- BIOL 11700 - Principles of Ecology and Evolution Cr. 4.
- BIOL 11900 - Principles of Structure and Function Cr. 4.
- BIOL 22000 - Microbiology for Allied Health Professionals Cr. 4.
- BUS A201 - Principles of Financial Accounting Cr. 3.
- BUS W100 - Principles of Business Administration Cr. 3.
- CHM 10400 - Living Chemistry Cr. 3.
- CHM 11500 - General Chemistry Cr. 4.
- CHM 11600 - General Chemistry Cr. 4.
- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- COM 21200 - Approaches to the Study of Interpersonal Communication Cr. 3.
- ECON E200 - Fundamentals of Economics Cr. 3.
- ECON E201 - Introduction to Microeconomics Cr. 3.

- ECON E202 - Introduction to Macroeconomics Cr. 3.
- ENG L101 - Western World Masterpieces I: Ancient to Renaissance Cr. 3.
- ENG L102 - Western World Masterpieces II: Renaissance to Modern Cr. 3.
- ENG L202 - Literary Interpretation Cr. 3.
- ENG L250 - American Literature Before 1865 Cr. 3.
- ENG L251 - American Literature Since 1865 Cr. 3.
- ENG L390 - Children's Literature Cr. 3.
- ENG W103 - Introductory Creative Writing Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
- ENG W233 - Intermediate Expository Writing Cr. 3.
- ENG W234 - Technical Report Writing Cr. 3.
- ETCS 10600 - Introduction to Computers Cr. 3.
- FINA H101 - Art Appreciation Cr. 3.
- FINA H111 - Ancient and Medieval Art Cr. 3.
- FINA H112 - Renaissance Through Modern Art Cr. 3.
- FNN 30300 - Essentials of Nutrition Cr. 3.
- FREN F111 - Elementary French I Cr. 4.
- FREN F112 - Elementary French II Cr. 4.
- FREN F203 - Second-Year French I Cr. 3.
- FREN F204 - Second-Year French II Cr. 3.
- GEOL G103 - Earth Science: Materials and Processes Cr. 3.
- HIST H105 - American History I Cr. 3.
- HIST H106 - American History II Cr. 3.
- MA 15300 - Algebra and Trigonometry I Cr. 3.
- MA 15400 - Algebra and Trigonometry II Cr. 3.
- MA 16500 - Analytic Geometry and Calculus I Cr. 4.
- MA 16600 - Analytic Geometry and Calculus II Cr. 4.
- MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
- MA 21300 - Finite Mathematics I Cr. 3.
- MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.
- MA 23000 - Calculus for the Managerial, Social, and Biological Sciences II Cr. 3.
- MUS Z101 - Music for the Listener Cr. 3.
- PHIL 11100 - Ethics Cr. 3.
- PHIL 20600 - Philosophy of Religion Cr. 3.
- PHYS 15200 - Mechanics Cr. 5.
- PHYS 22000 - General Physics Cr. 4.
- PHYS 22100 - General Physics Cr. 4.
- PHYS 25100 - Heat, Electricity, and Optics Cr. 5.
- POLS Y103 - Introduction to American Politics Cr. 3.
- POLS Y109 - Introduction to International Relations Cr. 3.
- PSY 12000 - Elementary Psychology Cr. 3.
- PSY 24000 - Introduction to Social Psychology Cr. 3.
- PSY 35000 - Abnormal Psychology Cr. 3.
- PSY 36900 - Development Across the Lifespan Cr. 3.
- PSY 44400 - Human Sexual Behavior Cr. 3.
- SOC S161 - Principles of Sociology Cr. 3.
- SOC S163 - Social Problems Cr. 3.

- SPAN S111 - Elementary Spanish I Cr. 4.
- SPAN S112 - Elementary Spanish II Cr. 4.
- SPAN S203 - Second-Year Spanish I Cr. 3.
- SPAN S204 - Second-Year Spanish II Cr. 3.
- SPEA J101 - The American Criminal Justice System Cr. 3.
- THTR 13400 - Fundamentals of Performance Cr. 3.
- THTR 20100 - Theatre Appreciation Cr. 3.

Part 4: Colleges, Schools & Divisions

College of Arts and Sciences

Liberal Arts Building 153 ~ 260-481-6160 ~ www.ipfw.edu/as/

The College of Arts and Sciences offers programs and courses in the traditional liberal arts disciplines. In addition to providing students with opportunities to develop skills required for the workplace or for advanced study, it seeks to foster well-rounded development of the individual. The college recognizes the role of nontraditional students at IPFW and makes special efforts to meet their needs.

Graduates of the college's baccalaureate programs should have knowledge and awareness enabling them to be effective citizens and lifelong learners. They are expected to have a working understanding of the knowledge and methodology appropriate for their discipline and should be aware of the major issues in their field and able to communicate field content effectively.

The college's Associate of Arts program with 10 concentration areas serves as an intermediate step toward completion of a baccalaureate degree. The chemical methods Associate of Science program, on the other hand, serves students who are preparing for a career as a chemical technician and is not recommended for students who wish to pursue a bachelor's program.

The service and research missions of the college are those appropriate to a comprehensive regional university. The college is responsible for basic-skills courses in mathematics and oral and written communication, as well as the majority of the courses fulfilling college and IPFW general-education requirements. Faculty engage in research or creative endeavor linked to their teaching as well as to IPFW's role as the regional center for higher education. Through research, faculty maintain their qualifications as teachers and, in their contribution to knowledge in their disciplines, enhance the reputation of the campus. Through research and service, the college seeks to make itself a vital resource for business, industry, public and private education, the arts, and government in northeast Indiana.

Academic Programs

The College of Arts and Sciences offers a broad range of minors, transfer programs, and interdisciplinary certificate programs. Each program with its sponsoring unit in the college is listed below for each degree. If you are undecided about a major within the college, you should, with the help of your advisor, choose courses carefully to assure reasonable progress as you narrow your choices and finally decide on a specific plan of study. If you change your major within the college, your degree requirements and your university affiliation may also change.

All bachelor's degrees require a major of at least 24 credits in courses specified by the major department. Minors include (a) a minimum of 12 credits with at least 8 credits at the 200 level or above; (b) at least half the credits taken as resident credits; and (c) a grade of C or better in each course.

Associate of Arts

An Associate of Arts (A.A.) is available with a choice of 10 concentrations. You can generally apply all credits earned in the A.A. program toward a bachelor's degree with a major in the A.A. concentration area. See Part 5 for A.A. requirements.

Concentration	**Department**
Biology	Biology
English	English and Linguistics
French	International Language and Culture Studies
German	International Language and Culture Studies
History	History
Mathematics	Mathematical Sciences
Political Science	Political Science
Psychology	Psychology
Spanish	International Language and Culture Studies
Women's Studies	Women's Studies

Associate of Science

Concentration	*Department*
Chemical Methods	Chemistry

Bachelor of Arts

Major	*Department*
Anthropology	Anthropology
Computer Science	Mathematical Sciences
Economics	Arts and Sciences
English	English and Linguistics
French	International Language and Culture Studies
Geology	Geosciences
German	International Language and Culture Studies
History	History
Interpersonal and Organizational Communication	Communication
Media and Public Communication	Communication
Philosophy	Philosophy
Political Science	Political Science
Psychology	Psychology
Sociology	Sociology
Spanish	International Language and Culture Studies
Women's Studies	Women's Studies

Bachelor of Science

Major	Department
Biology	Biology
Biology Teaching	Biology
Chemistry, B.S.C.	Chemistry
Chemistry Teaching	Chemistry
Communication Sciences & Disorders	Communication Sciences & Disorders
Geology	Geosciences
Mathematics	Mathematical Sciences
Mathematics Teaching	Mathematical Sciences
Medical Technology	Biology
Physics	Physics
Physics Teaching	Physics

Minors

Minor	Department
Anthropology	Anthropology
Applied Ethics	Philosophy
Biology	Biology
Chemistry	Chemistry
Communication Studies	Communication
Creative Writing	English and Linguistics
Economics	Arts and Sciences
English	English and Linguistics
Film and Media Studies	Arts and Sciences
Folklore	English and Linguistics
French	International Language and Culture Studies
Geology	Geosciences
German	International Language and Culture Studies
History	History
Journalism	Arts and Sciences
Linguistics	English and Linguistics
Mathematics	Mathematical Sciences
Media Production	Communication
Philosophy	Philosophy
Physics	Physics
Political Science	Political Science
Professional Writing	English and Linguistics
Psychology	Psychology
Public Relations	Arts and Sciences
Religious Studies	Philosophy
Sociology	Sociology
Spanish	International Language and Culture Studies
Women's Studies	Women's Studies

Certificates

Subject	Department
American Studies	Arts and Sciences
Civic Education and Public Advocacy	Arts and Sciences
Ethnic and Cultural Studies	Arts and Sciences
Gerontology	Arts and Sciences
International Studies	Arts and Sciences
Native American Studies	Arts and Sciences
Peace and Conflict Studies	Arts and Sciences
Teaching English as a New Language	English and Linguistics
Women's Studies	Arts and Sciences

Research Certificates

Anthropology	Arts and Sciences
Biology	Arts and Sciences
Chemistry	Arts and Sciences
Mathematical Sciences	Arts and Sciences
Physics	Arts and Sciences
Psychology	Arts and Sciences

Transfer Programs

The college's transfer programs in agriculture, journalism, forestry and natural resources, prepharmacy, and preveterinary studies are described in Part 5 of the *Bulletin*. You may also complete at IPFW one or two years of work toward many bachelor's degrees offered by the College of Arts and Sciences at Indiana University Bloomington and by the College of Liberal Arts and the College of Science at Purdue University West Lafayette. If you are planning to complete your degree at another campus, make this interest known the first time you see your IPFW academic advisor.

Preprofessional Programs

The college provides academic advising and programs for students who wish to prepare to compete for admission to professional colleges at one of the public universities in the state or at other institutions. In the list below, the years refer to full-time study, 30 to 32 credits per academic year:

Program	Years	University
Predentistry*	3–4	Indiana
Pre-law	4	Indiana
Premedicine*	3–4	Indiana

Program	Years	University
Pre-optometry*	3–4	Indiana
Prepharmacy 2	2	Purdue
Preveterinary Medicine	2	Purdue

*Although some colleges offer early admission to highly qualified students who have completed 90 credits, most applicants have completed a bachelor's degree. If you think you may qualify for early admission, you should consult your advisor about completing requirements for the bachelor's degree from the College of Arts and Sciences during the first year of professional college.

Academic advising for prepharmacy and preveterinary students is provided in the college office; for predental, premedical and pre-optometryy students in the Department of Biology; and for prelaw students in the Department of Political Science. If you are not majoring in the department that provides this advising, you should consult the appropriate preprofessional advisor before you see your department advisor to select your courses.

The Science and Engineering Research Semester (SERS)

Students majoring in natural sciences, mathematics, or computer science are encouraged to consider participating in the Science and Engineering Research Semester sponsored by the U.S. Department of Energy. If you are admitted to the program, you spend a fall or spring semester at one of six national laboratories conducting research under the mentorship of a staff scientist or engineer. The laboratories include Argonne in Illinois, Brookhaven in New York, Lawrence Berkeley in California, Los Alamos in New Mexico, Oak Ridge in Tennessee, and Pacific Northwest in Washington state. In addition to being directly involved in research, you also may enroll in one academic course during this semester. Credit for research and course work is determined in consultation with your academic advisor, the department chair, and the SERS campus advisor. Students accepted into the program receive a stipend, housing, and limited travel reimbursement. Inquiries should be initiated at least seven months prior to the anticipated starting date. You should begin planning in your freshman year to reserve time for this opportunity. Eligibility requirements include U.S. citizenship or permanent resident alien status, completion of the sophomore year, and a GPA of 3.00 or higher. For further information, contact the College of Arts and Sciences or the College of Engineering, Technology and Computer Science.

Cooperative Education (Co-Op) Program

Cooperative education provides an opportunity for you to work in an occupation related to your major. In this program, you may alternate between full-time study and full-time employment. Students normally enter the program at the end of their first year or upon completion of the summer session immediately following the first year. Check with your advisor regarding department requirements for eligibility for this program.

Research Certificate

The research certificate provides opportunities for you to engage in active learning opportunities integrating original research and the undergraduate curricula by learning research methods and tools appropriate to your discipline and your research interests within the discipline; by learning the foundations of research in the history, philosophy, and theory of the discipline; by learning advanced communications skills; and by applying these learnings by designing and executing a research study or project and communicating the results to others.

Degree Requirements and Academic Regulations for Students in the College of Arts and Sciences

In addition to the academic regulations of IPFW (see Part 8), the following rules apply to you. Where college regulations are stricter than IPFW regulations, the college regulations apply.

For each of the concentrations for the Associate of Arts, the requirements encompass approximately the first half of the bachelor's degree program offered by the sponsoring department. See Part 5 for complete requirements for related bachelor's degrees.

Because individual departments may have specific requirements, students are strongly encouraged to consult with their academic advisors when planning their course of study.

Requirements for the Associate of Arts

Credits in IPFW General Education Area I:(9)

- *COM 11400 Fundamentals of Speech Communication, with a grade of C- or higher*
- *ENG W131 Elementary Composition I (or equivalent), with a grade of C- or higher*
- Quantitative Reasoning course (except MA 10100), with a grade of C- or higher
- IPFW General Education Area II, including one science course with a scheduled laboratory (6 credits)
- IPFW General Education Area III (6 credits)
- IPFW General Education Area IV (6 credits)
- First year of an international language (8 Credits)
- Credits in a concentration with a grade of C- or higher in each course (see below) (15–21 credits)
- Additional credits in approved elective courses (4–12 Credits)

   Total Credits with a graduation GPA of at least 2.00 (60–63)

Requirements for Associate of Science

Requirements for the Associate of Science in chemical methods appear in Part 5 of this *Bulletin*.

Requirements for Bachelor of Arts

In addition to Areas I through VI of the IPFW General Education program and the requirements for your major, you must satisfy the following college requirements:

1. Parts A through D listed below
2. At least 30 credits in upper-level courses as defined by the departments offering the courses (excluding military science courses).
3. A grade of C- or better for all courses required in the major and a GPA of 2.00 or higher for all major department courses taken. At most, one approved course in the major discipline may also count toward IPFW General Education Area II–V requirements. No course in the major discipline may count in Area VI.
4. The IPFW General Education Area I computer literacy requirement for the College of Arts and Sciences is met by completing COM 11400, ENG W131, and one additional course selected from the following: ETCS 10600, CS 10700, CS 16000, MA 14900, MA 15300, MA 15400, MA 15900, MA 16300, MA 16400, MA 16500, MA 16600, MA 16800, MA 22900, MA 23000, STAT 12500, or an approved departmentally specified course, or completion of STEPS (or successor program).

   The IPFW General Education Area I quantitative reasoning requirement for the College of Arts and Sciences is met by completing, with a grade of a C- or better, any course listed in the quantitative reasoning section of General Education Area I (except MA 10100), or any mathematics course numbered 15300 or higher. Note that for some degree programs, only a subset of the courses listed in the quantitative reasoning section of General Education Area I are allowed. The various courses differ in terms with respect to emphasis on the foundations of mathematical reasoning and their applications. You are strongly encouraged to consult your academic advisor as to which course would be most appropriate for you.

5. The College of Arts and Sciences requires that you complete at least one science course with a scheduled laboratory as part of your IPFW General Education Area II requirements. This requirement may be met either by taking a lecture course that includes a scheduled laboratory (e.g., CHM 111) or a lecture course plus a laboratory course designed to accompany it (e.g., GEOL G100 plus GEOL L100). This provides the opportunity to apply concepts learned in the classroom and to conduct scientific inquiry.
6. A sufficient number of elective credits to bring the total for graduation to 124.

Part A: English Writing

An education in the liberal arts and sciences emphasizes the value of analyzing and presenting ideas in writing; thus the College strives to improve its students' written communication skills. Consequently, you are required to take a second writing course in addition to the General Education writing course. You will complete ENG W233 or an equivalent second writing course approved for this purpose by individual departments and the College. In general these second writing courses are developed to introduce students to the types of writing they will do in their respective fields. Approved equivalents are ENG L202, HIST H217, ILCS I300, POLS Y205, or SOC S260. You must complete both ENG W131 (or equivalent) and your second writing course with a grade of C- or better.

Part B: International Language

You must complete two courses at the first-year level and two courses at the second-year level in a single international language (or demonstrate equivalent proficiency). For advanced placement and special credit in an international language, see the additional information for the bachelor's degree. Under certain limited conditions, students may petition to substitute American Sign Language (plus a course on global issues or three credit hours of study abroad) for an international language. Students who wish to explore this option should consult the department of their major.

Part C: Distribution

A significant component of the College of Arts and Sciences education is the breadth of knowledge throughout the three major areas of Science and Mathematics, Social and Behavioral Sciences, and Humanities. You will accomplish this by completing 3 credits in each of these areas. Credits in your major discipline or in directed study courses may not be used to satisfy this requirement.

1. Science and Mathematics. Courses from the following disciplines satisfy this requirement:

Agriculture (FNR 10300 only)
Anthropology (ANTH B200 only)
Astronomy
Biology (excluding BIOL 10500)
Chemistry
Entomology
Geography (physical geography only)
Geology
Mathematics (excluding MA 10100, 10200, and 10300)
Physics
Political Science (POLS Y395 only)
Sociology (SOC S351 only)
Statistics

2. Social and Behavioral Sciences. Courses from the following disciplines satisfy this requirement:

Anthropology (excluding ANTH B200)
Communication (excluding COM 11400, 21000, 24000, 31200, and 31600)
Communication Sciences and Disorders

Economics
English (ENG G205, G206, and G301 only)
Geography (human, cultural, or social geography only)
Gerontology (GERN G231 only)
International Studies (lNTL I200 only)
Journalism (JOUR C200, C300, J300, and J337 only)
Linguistics
Political Science (excluding POLS Y395)
Psychology
Sociology (excluding SOC S351)
Spanish* (SPAN S425, S426, and S428 only)
Women's Studies (WOST W210 and W240 only)

3. Humanities. Courses from the following disciplines satisfy this requirement:

Afro-American studies
American studies

Arabic
Architectural Engineering Technology (ARET 21000 and 31000 only)
Chinese*
Classical studies
Communication (COM 21000, 21600, 24000, 31200, and 31600 only)
Comparative literature
English (except ENG G205, G206, G301, P131, W129, W131,
W140, W232, W233, W234, W331, W364, W397, W398,
 W421, W422, and W460)
Film studies
Fine arts (excluding studio courses)
Folklore
French*
German*
History
International Language and Culture Studies (excluding ILCS I300)
Journalism (excluding JOUR C200, C300, and J300)
Latin American Studies
Music (excluding performance/skills courses)
Philosophy
Religious Studies
Russian*
Spanish* (except SPAN S425, S426, and S428)
Theatre (excluding performance/production courses)
Women's Studies (excluding WOST W210 and W240)

*excluding courses used to satisfy the Part B requirement

Part D: Cultural Studies

An important element of the College of Arts and Sciences degree requirements is for students to acquire skills
necessary to be productive, responsible citizens and community leaders. To do this, you must have a commitment to
free and open inquiry and show mutual respect across multiple cultures and perspectives. Students will accomplish this
by taking 6 credit hours in cultural studies, including one course in Western Culture and one course in Non-Western
Culture.

1. Western Culture. You must complete one of the following 3-credit courses dealing broadly with the Western tradition:

CLAS C205, C405
COM 31200
ENG L101, L102
FINA H111, H112
HIST H113, H114
PHIL 11000, 24000, 30100, 33100
POLS Y105, Y381, Y382
REL 11200, 23100

2. Non-Western Culture. You must complete one of the following 3-credit courses dealing exclusively or primarily with a non-Western culture or cultures:

ANTH E320, E321, E330, E335, E340, E341, E345, E 375, E401, E405, E420, E445, E455, E457, E462, E470, P360, P370
CMLT C461
ENG L107, L113, L364
FINA H415
FOLK F305, F352
HIST A310–A311, C393, D 402, D410, E100, E331, E332, E336, E431, F341, F342, F346, F432, G451, G452, H201, H202, H203, H204, H232, T335
PHIL 33000
POLS Y337, Y339, Y340
REL 23000, 30100
SPAN S246, S412, S471, S472, S477, S479, S480
WOST W301

Requirements for Bachelor of Science

In addition to Areas I through VI of the IPFW General Education program and the requirements for your major, you must satisfy the following college requirements:

1. Parts A and B listed below
2. At least 30 credits in upper-level courses as defined by the departments offering the courses (excluding military science courses)
3. A GPA of 2.00 or higher for all major department courses taken. At most, one approved course in the major discipline may also count toward satisfying IPFW General Education Area II–V requirements.
4. The IPFW General Education Area I computer literacy requirement for the College of Arts and Sciences is met by completing COM 114, ENG W131, and one additional course selected from the following: ETCS 10600, CS 16000, MA 14900, MA 15300, MA 15400, MA 15900, MA 16300, MA 16400, MA 16500, MA 16600, MA 16800, MA 22900, MA 23000, STAT 12500, or an approved departmentally specified course, or completion of STEPS (or successor program).
5. A sufficient number of elective credits to bring the total for graduation to 124.

Part A: English Writing

An education in the liberal arts and sciences emphasizes the value of analyzing and presenting ideas in writing, and thus the College strives to improve its students' written communication skills. Consequently, you are required to take a second writing course in addition to the General Education writing course. You will complete ENG W233 or an equivalent second writing course approved for this purpose by individual departments and the College. In general, these second writing courses are developed to introduce students to the types of writing they will do in their respective fields.

Approved equivalents are ENG L202, HIST H217, ILCS I300, POLS Y205, or SOC S260. You must complete both ENG W131 (or equivalent) and your second writing course with a grade of C- or better.

Part B: International Language

You must complete two courses at the first-year level (or demonstrate equivalent proficiency) in one international language. Students in a teaching program are exempt from the international language requirement. You are urged to begin studying a language as soon as possible. For advanced placement and special credit in international language, see the additional information for bachelor's degrees, below.

Additional Information for Bachelor's Degrees

Along with the IPFW academic regulations (see Part 8), the following information applies to all bachelor's degree programs:

1. Special Credit for International Language.

When you begin your international language study at the second-semester (112 - 113) level or higher, you are eligible to apply for special credit after you successfully complete the course into which you placed. You may receive up to 14 credits of special credit for the courses you skipped.

2. Undistributed Transfer Credit.

Undistributed transfer credit (for courses not equivalent to IPFW courses) may be used to satisfy General Education requirements and distribution requirements and may be counted in the major. You should contact the College office to confirm the application to your program of any undistributed transfer credit you are awarded.

3. Credit Restrictions.

The following restrictions apply to all Arts and Sciences degrees:

a. You may count no more than 4 credits in:
   HPER activities
b. You may count no more than 3 credits in:
   IDIS courses ENG W135 MA 14900, and only by those departments that allow graduation credit for MA 15300
c. You may count no credit in:
   Developmental courses such as CHM 10000; EDUC X15x; ENG R15x, W11x, and W130; and MA 10900, 11100, and 11300.

   Courses that provide only surveys of career opportunities, such as AGR 10100, BUS J100, CNT 10100, EDUA F300 (except when offered as Invitation to Teaching) and G250, EDUC X210, ENGR 10100, ETCS 10100, HSRV 10000 (1 cr.), HTM 10000, IDIS 10500, MHT 10000 (1 cr.), NUR 10100, RHIT 10000, SPEA V352, and VM 10200.

   Courses designed to provide a skill not required to complete the major, such as AHLT Mxxx, AHSP Mxxx; BUFW C124, C125, C293, and X221; BUS K214; DAST Axxx; DHYG Hxxx; OLS 12100; and SPV 39900.

   Courses offered by the former Indiana Division of General and Technical Studies (DGTS).

4. Credit for Military Service.

Up to 9 credits for military service in the armed forces of the United States may be counted toward graduation.

5. Overlapping Content.

You may not count toward graduation any courses or sequences considered to have overlapping content. Such courses are listed below; check this list before registering. This list may not be exhaustive. Please consult with your advisor. If you enroll in a course that appears in the left column, and you have completed any of the courses that are listed to its right, only the most recently completed course will apply toward graduation.

Courses with Overlapping Content

AHSP M195	BIOL 10500
BIOL 10000	BIOL 10800–10900 or 11700–11900 or 25000
BIOL 10500	AHSP M195
BIOL 10800-10900	BIOL 10000 or 11700–11900 or 25000
BIOL 11700-11900	BIOL 10000 or 10800–10900 or 25000
BIOL 12100/12200-13300/13400	BIOL 10000 or 10800–10900 or 11700–11900 or 25000
BIOL 20300–20400	
BIOL 21500–21600	BIOL 21500–21600
BIOL 21800	BIOL 20300–20400
BIOL 22000	BIOL 24100–24200
BIOL 22100	BIOL 22100 or 43800–43900 or 43700
BIOL 23300–23400	BIOL 22000 or 43800–43900 or 43700
BIOL 24100–24200	BIOL 38100–38200
BIOL 25000	BIOL 21800
BIOL 31700	BIOL 10000 or 10800/10900
BIOL 38100–38200	PSY 31700
BIOL 43700	BIOL 23300–23400
BIOL 43800-43900	BIOL 22000 or 22100 or 43800-43900
BUS K200–K211–K212	BIOL 22000 or 22100 or 43700
CHM 10100–10200	CS 10600, ETCS 10600
CHM 10400	CHM 10400 or 11100–11200 or 11500–11600 or 12900 or 15100
CHM 11100–11200	CHM 10100–10200 or 11100–11200 or 11500–11600 or 12900 or 15100
CHM 11500–11600	CHM 10400 or 10100–10200 or 11500–11600 or 12900 or 15100
CHM 12900	CHM 10400 or 10100–10200 or 11100–11200 or 12900 or 15100
CHM 15100	CHM 10400 or 10100–10200 or 11100–11200 or 11500-11600 or 15100
CHM 22400	CHM 10400 or 10100–10200 or 11100–11200 or 11500-11600 or 12900
CHM 25100	CHM 32100
CHM 25200	CHM 25500–25600 or 26100–26200
CHM 25400–25800	CHM 25400–25800 or 26300–26400 or 26500–26600
CHM 25500–25600	CHM 25200 or 26300–26400 or 26500–26600
CHM 26100–26200	CHM 25100 or 26100–26200
CHM 26300–26400	CHM 25100 or 25500–25600
CHM 26500–26600	CHM 25200 or 25400–25800 or 26500–26600
CHM 32100	CHM 25200 or 25400–25800 or 26300–26400
CHM 37100	CHM 22400
CHM 38300–38400	CHM 37300–37400 or 38300–38400

COM 24800	CHM 37100 or 37300–37400
COM 25000	COM 25100
COM 25100	JOUR C200
COM 35200	COM 24800
CS 10600	JOUR J300
ECON E200	BUS K200-K211-K212, ETCS 10600
ECON E201	ECON E201
ECON E270	ECON E200
EE 30200	POLS Y395 or PSY 20100 or SOC S351 or SPEA K300 or STAT 24000 or 26000 or 30100 or 30300 or 30
ENG L220	STAT 31100 or 51600
ENG L315	ENG L315
ENG L374	ENG L220
ENG L379	ENG L379
ENG W131	ENG L374
ENG W135	ENG W135
ENG W140	ENG W131
ENG W233	ENG W233
ETCS 10600	ENG W140
FOLK F254	BUS K200-K211-K212, CS 10600
GEOL G100	MUS Z201
GEOL G103	GEOL G103 or S100
GEOL S100	GEOL G100 or S100
GER G309	GEOL G100 or G103
HIST A316	INTL I209
HIST A345-A346	HIST A345–A346
HIST E331	HIST A316
HIST E332	HIST E431
IDIS 11000	HIST E432
IDIS G102	IDIS G102 or G103 or G104
IDIS G103	IDIS 11000 or G103 or G104
IDIS G104	IDIS 11000 or G102 or G104
INTL I209	IDIS 11000 or G102 or G103
INTL I441	GER G309
JOUR C200	AMST A441
JOUR J300	COM 25000
MA 14900	COM 35200
MA 15000	MA 15300
MA 15100	MA 15100 or 15300–15400 or 15900
MA 15300	MA 15000 or 15300–15400 or 15900
MA 15300–15400	MA 14900
MA 15900	MA 15000 or 15100 or 15900
MA 16300–16400	MA 15000 or 15100 or 15300–15400
MA 16500–16600	MA 16500–16600 or 22700–22800 or 22900–23000
MA 17500	MA 16300–16400 or 22700–22800 or 22900–23000
MA 21300	MA 21300–21500
MA 21300–21500	MA 17500 or 21500
MA 22700–22800	MA 17500
MA 22900–23000	MA 16300–16400 or 16500–16600 or 22900–23000
MA 26100	MA 16300–16400 or 16500–16600 or 22700–22800
MA 26200	MA 26300
MA 26300	MA 32100 or 36300
MA 32100	MA 26100
MA 36300	MA 26200 or 36300
MUS Z201	MA 26200 or 32100

PHIL 11200	FOLK F254
PHIL 33000	REL 11200
PHIL 33100	REL 23000
PHYS 13100–13200	REL 23100
PHYS 15200–25100	PHYS 15200–25100 or 20100–20200 or 21800–21900 or 22000–22100
PHYS 20100–20200	PHYS 13100–13200 or 20100–20200 or 21800–21900 or 22000–22100
PHYS 21800–21900	PHYS 13100–13200 or 15200–25100 or 21800–21900 or 22000–22100
PHYS 22000–22100	PHYS 13100–13200 or 15200–25100 or 20100–20200 or 22000–22100
PHYS 24100	PHYS 13100–13200 or 15200–25100 or 20100–20200 or 21800–21900
PHYS 25100	PHYS 25100 or 26100
PHYS 26100	PHYS 24100 or 26100
POLS Y101	PHYS 24100 or 25100
POLS Y150	POLS Y150
POLS Y395	POLS Y101
PSY 20000	ECON E270 or PSY 20100 or SOC S351 or SPEA K300 or STAT 24000 or 26000 or 30100 or 30300 or 30
PSY 20100	PSY 41600
PSY 20200	ECON E270 or POLS Y395 or SOC S351 or SPEA K300 or STAT 24000 or 26000 or 30100 or 30300 or 30
PSY 20500	PSY 20500
PSY 22500	PSY 20200
PSY 23500	PSY 33500
PSY 31700	PSY 36900
PSY 33500	BIOL 31700
PSY 36900	PSY 22500
PSY 41600	PSY 23500
REL 11200	PSY 20000
REL 23000	PHIL 11200
REL 23100	PHIL 33000
SOC S35100	PHIL 33100
SPEA K300	ECON E270 or POLS Y395 or PSY 20100 or SPEA K300 or STAT 24000 or 26000 or 30100 or 30300 or 3
STAT 24000	ECON E270 or POLS Y395 or PSY 20100 or SOC S351 or STAT 24000 or 26000 or 30100 or 30300 or 30
STAT 26000	ECON E270 or POLS Y395 or PSY 20100 or SOC S351 or SPEA K300 or STAT 26000 or 30100 or 30300
STAT 30100	ECON E270 or POLS Y395 or PSY 20100 or SOC S351 or SPEA K300 or STAT 24000 or 30100 or 30300
STAT 30300	ECON E270 or POLS Y395 or PSY 20100 or SOC S351 or SPEA K300 or STAT 24000 or 26000 or 30300
STAT 30700	ECON E270 or POLS Y395 or PSY 20100 or SOC S351 or SPEA K300 or STAT 24000 or 26000 or 30100
STAT 31100	ECON E270 or POLS Y395 or PSY 20100 or SOC S351 or SPEA K300 or STAT 24000 or 26000 or 30100
STAT 34000	EE 30200 or STAT 51600
STAT 51100	STAT 51200
STAT 51200	ECON E270 or POLS Y395 or PSY 20100 or SOC S351 or SPEA K300 or STAT 24000 or 26000 or 30100
STAT 51600	STAT 34000
	EE 30200 or STAT 31100

Upper-Level Courses

All courses numbered 300 or above are considered upper-level courses. In addition, the following 200-numbered courses, defined as upper level by the departments offering them, may be included in the 30 credits in upper-level courses required for graduation.

BIOL 21500
CHM 21800, 22400, 25400, 25500, 25600, 25800, 26100, 26200, 26500, 26600, 27500, and 29000
ENTM 20600-20700
GEOL G213, G221, and G222
MA 26100, 26300, and 27500

PHYS 27000
PSY 20100, 20300, 20500, 23500, 24000, and 27200
REL 23000 and 23100

Correspondence Study

Departments may approve enrollment in correspondence-study courses by students pursuing their majors. After you obtain a signature indicating departmental approval, you must bring the enrollment form to the College of Arts and Sciences for authorization to enroll.

Academic Load

You may register for more than 18 credits per semester or 7 credits in a six-week summer session only if: (1) your most recent semester GPA is 3.00 or higher, (2) you have no incomplete grades at the time of registration, and (3) you obtain approval of a dean of the college.

Pass/Not-Pass Option

The following restrictions are in addition to those in the IPFW academic regulations in Part 8 of this *Bulletin*:

1. You must be classified as a sophomore or higher and must have a GPA of 2.50 or better.
2. You may take no more than two courses per year under the Pass/Not-Pass Option. Summer-session enrollments are counted as part of the preceding academic year for the purpose of this restriction.

Academic Renewal Option

The College of Arts and Sciences participates in the Academic Renewal option for eligible students returning to IPFW after an absence of five or more years. See your advisor for additional details.

Changing Major Within the College

If you change your major within the college, your college requirements will be those specified in the *Bulletin* in effect at the time the change becomes effective.

College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 243 ~ 260-481-6839 ~ www.etcs.ipfw.edu

The objective of the College of Engineering, Technology, and Computer Science (ETCS) is to be an increasingly valuable technological resource for its students, and to serve society as an integral component of a unique and comprehensive university with vigorous regional ties and a growing national reputation. Within the broader mission of the university, the college's goal is to prepare technicians, technologists, computer professionals, and engineers, and to provide its students with opportunities to develop fundamental skills, knowledge, and a professional attitude. The College is also the academic home for Military Science faculty members who offer courses in the Army ROTC program that leads to commissioning as an Army Officer.

ETCS offers degree programs in many areas related to computer science, engineering technology, engineering, and leadership. Courses for these programs range from the study of fundamentals to practical, real-world, industrial methods.

Academic Programs

Full descriptions of the college's certificate and degree programs appear in alphabetical order in Part 5 of this *Bulletin.*

Associate of Science

Subject	*Department*
Architectural Engineering Technology	Manufacturing & Construction Engineering Technology and Interior Design
Civil Engineering Technology	Manufacturing & Construction Engineering Technology and Interior Design
Electrical Engineering Technology	Computer and Electrical Engineering Technology & Information Systems and Technology
Industrial Engineering Technology	Manufacturing & Construction Engineering Technology and Interior Design
Information Systems	Computer and Electrical Engineering Technology & Information Systems and Technology
Interior Design	Manufacturing & Construction Engineering Technology and Interior Design
Mechanical Engineering Technology	Manufacturing & Construction Engineering Technology and Interior Design
Organizational Leadership and Supervision	Organizational Leadership and Supervision

Bachelor of Science

Subject	*Department*
Civil Engineering (B.S.C.E.)	Engineering
Computer Engineering (B.S.Cmp.E.)	Engineering
Computer Engineering Technology (B.S.)	Computer and Electrical Engineering Technology & Information Systems and Technology
Computer Science (B.S.)	Computer Science
Construction Engineering Technology (B.S.)	Manufacturing & Construction Engineering Technology and Interior Design
Electrical Engineering (B.S.E.E.)	Engineering
Electrical Engineering Technology (B.S.)	Computer and Electrical Engineering Technology & Information Systems and Technology
Industrial Engineering Technology (B.S.)	Computer and Electrical Engineering Technology & Information Systems and Technology
Information Systems (B.S.)	Manufacturing & Construction Engineering Technology and Interior Design
Interior Design (B.S.)	Manufacturing & Construction Engineering Technology and Interior Design
Mechanical Engineering (B.S.M.E.)	Computer and Electrical Engineering Technology & Information Systems and Technology
Mechanical Engineering Technology (B.S.)	Manufacturing & Construction Engineering Technology and Interior Design
	Engineering

Organizational Leadership and Supervision (B.S.)	Manufacturing & Construction Engineering Technology and Interior Design
	Organizational Leadership and Supervision

Certificate

Subject	*Department*
Advanced Microprocessors	Computer and Electrical Engineering Technology & Information Systems and Technology
Computer Controllec Systems	Computer and Electrical Engineering Technology & Information Systems and Technology
Computer Networking	Computer and Electrical Engineering Technology & Information Systems and Technology
Electronic Communications	Computer and Electrical Engineering Technology & Information Systems and Technology
Quality	Manufacturing & Construction Engineering Technology and Interior Design
Supervisory Leadership	Organizational Leadership and Supervision

Minor

Subject	*Department*
Computer Science	Computer Science
Electronics	Computer and Electrical Engineering Technology & Information Systems and Technology
Informatics	Computer Science
Information Systems	Computer and Electrical Engineering Technology & Information Systems and Technology
Organizational Leadership and Supervision	Organizational Leadership and Supervision

General Degree and Certificate Requirements

In addition to the academic regulations of IPFW (see Part 8), the following rules apply to students in the college. Where the college regulations are stricter than IPFW regulations, the college regulations apply.

Certificates and Associate Degrees

Requirements for certificates and Associate of Science degrees offered by the college are specified in the college's departmental listings.

Bachelor's Degrees

In addition to the requirements of IPFW (see Part 8) and those of your elected major, you must satisfy the following requirements of the College of Engineering, Technology, and Computer Science:

1. Earn a minimum of 124 credits.
2. Earn a graduation GPA of 2.00 or better in courses required for the major that are offered by the major department.
3. Satisfactorily complete ENG W131 or an equivalent English composition course with a grade of C or better.
4. Satisfactorily complete any additional degree requirements defined by individual departments based upon respective accrediting body criteria.

No credit toward graduation will be given for (a) courses or sequences considered to have overlapping content (see listings, College of Arts and Sciences) and (b) developmental courses such as ENG W129; and MA 109, 113.

Cooperative Education (Co-Op) and Related Programs

The college's departments offer many options for Cooperative Education experiences. Regular co-op positions, work-study internships, and practicum positions are available and many departments offer laboratory or teaching assistantships. You should check with your department for these opportunities.

College of Health and Human Services

Neff Hall 142 ~ 260-481-6967 ~*www.ipfw.edu/hhs/*

The mission of the College of Health and Human Services is to provide the highest quality education to future and current healthcare and hospitality practitioners by providing a learning environment that supports the development of culturally competent caring, compassionate, and accountable professional. Our undergraduate and graduate programs prepare graduates who are dedicated to the autonomy, dignity, and diversity of the people they serve.

The College is committed to excellence in teaching, service and scholarship and to the elimination of health disparities in our community. Our graduates will value lifelong learning and have a professional work ethic based on professional standards and best practices. The College of Health and Human Services specifically identifies and addresses the ever-changing health and hospitality needs of the community served by Indiana University-Purdue University Fort Wayne (IPFW) through service, leadership, and the development of knowledge.

Available degrees and certificates are listed below.

Associate of Science

Subject	*Department*
Dental Hygiene	Dental Education
Dental Laboratory Technology	Dental Education
Nursing	Nursing
Radiography	College of Health and Human Services

Bachelor of Science

Subject	*Department*
Hospitality Management	Consumer and Family Sciences
Human Services	Human Services
Nursing	Nursing

Certificate

Subject	*Department*

Critical Care Nursing	Nursing (Pending Curriculum Changes)
Dental Assisting	Dental Education

Minor

Subject	*Department*
Human Services	Human Services

Transfer Options

Subject	*Department*
*Child Development and Family Studies	Consumer and Family Sciences
~Clinical Laboratory Science	College of Health and Human Services
~Cytotechnology	College of Health and Human Services
*Dietetics	Consumer and Family Sciences
~Health Information Administration	College of Health and Human Services
~Medical Imaging Technology	College of Health and Human Services
~Nuclear Medicine	College of Health and Human Services
~Occupational Therapy	College of Health and Human Services
~Paramedic Sciences	College of Health and Human Services
~Physical Therapy	College of Health and Human Services
~Radiation Therapy	College of Health and Human Services
~Respiratory Therapy	College of Health and Human Services
*Retail Management	Consumer and Family Sciences

* Purdue-West Lafayette
~Indiana University-Indianapolis

To complete any of the above programs, you must fulfill the requirements of IPFW (see Part 8), the College of Health and Human Services, and the specific program. Where school or department regulations are stricter than IPFW regulations, the stricter regulations apply.

Academic Renewal Option

Many of the degree programs offered by the school provide the Academic Renewal Option for eligible students returning to IPFW after an absence of five or more years.

See your advisor before or during the first semester you return for additional details.

Special Academic Regulations for Students in the College of Health and Human Services

Professional, mature conduct is expected of all students. Any form of academic or personal misconduct is in direct conflict with professionalism and will result in dismissal from the program in which the student is enrolled. Please refer to the current IPFW *Bulletin* regarding "Code of Student Rights, Responsibilities, and Conduct."

The College of Health and Human Services chooses the most stringent course of action regarding misconduct. A student dismissed from his or her program will also be dismissed from the College of Health and Human Services.

Following University guidelines, after two years a student who has been expelled from IPFW may petition for readmission to the University, program, and College. This does not assure the student will gain readmission.

Criminal-record Screens are conducted in all health and human services majors. Agencies may not accept a student who has a criminal record. In addition, students who have a record of a sex crime against a child may not be placed into a clinical in which there is an actual or potential possibility that they will come into contact with children (IC 5-2-12-12). Students who cannot be placed into clinicals due to their criminal records may not be able to graduate from the program and are advised to pursue a nonclinical degree.

Technical Standards for Admission and Retention of Students

Nonacademic criteria (technical standards) that all applicants/students are expected to meet vary by degree program. These standards include the following five categories: (1) observation; (2) communication; (3) motor-function; (4) intellectual-conceptual, integrative and quantitative abilities and (5) behavior and social attributes. For more information visit our web site for technical standards at http://www.ipfw.edu/hhs/resources/standards.shtml.

College of Visual and Performing Arts

Visual Arts Building 102 ~ 260-481-6977 ~ www.ipfw.edu/vpa/

The mission of the IPFW College of Visual and Performing Arts is to (1) provide exceptional professional and liberal arts degree programs that combine development in an artistic discipline and career preparation in the arts to students through individualized instruction within a broadly based curriculum, (2) offer culturally enriching opportunities to all students and members of the university community, and (3) be recognized as the center for arts education, outreach, collaborations, and professional leadership in northeast Indiana as well as a major regional arts resource through excellence in artistic performances, productions, exhibitions, library holdings, and technology. To support this mission, the faculty of the college of Visual and Performing Arts subscribe to the highest academic, artistic, and ethical standards for themselves and their students.

The college is composed of the departments and program areas of fine arts, visual communication and design, music, and theatre and includes faculty associated with both Indiana University and Purdue University. More than 600 students majoring and minoring in the visual and performing arts receive instruction from professional and academic staff that include 32 full-time faculty, 9 half-time continuing lecturers, and more than 50 limited-term lecturers and visiting artists.

The college offers the following academic programs:

Associate of Science

Subject	Department/Program
Commercial Art	Visual Communication and Design

Bachelor's Degrees

Subject	*Department/Program*
Art Education (B.A.)	Fine Arts
Fine Arts (B.A. and B.F.A.)	Fine Arts
Fine Arts (B.F.A.)	Visual Communication and Design
Music (B.Mus. and B.S.)	Music
Music Education (B.Mus.Ed.)	Music
Music Therapy (B.S.M.T.)	Music
Theatre (B.A.)	Theatre
Theatre Teaching (B.A.)	Theatre

Certificate

Subject	*Department/Program*
Piano Pedagogy	Music

Minor

Subject	*Department/Program*
Art History	Fine Arts
Dance	Theatre
Music	Music
Studio Art	Fine Arts
Theatre	Theatre
Theatre Teaching	Theatre

The above programs are described in Part 5 of this *Bulletin.*

As a regularly admitted student, you must follow the degree requirements and the college and program academic regulations specified in the Bulletin in effect at the time you first enrolled in the college. If you wish to follow the degree requirements specified in a later edition of the Bulletin, you must consult with your departmental advisor.

Departments and program areas reserve the right to publish new academic requirements and regulations at the beginning of an academic year. If such changes occur, newly admitted students will be subject to the revised requirements.

Academic Renewal Option

The College of Visual and Performing Arts participates in the Academic Renewal Option for eligible students returning to IPFW after an absence of five or more years. See your advisor for additional information.

Division of Continuing Studies

The mission of the Division of Continuing Studies is to provide high-quality lifelong learning opportunities for the residents of northeast Indiana.

Course work from this division is offered for academic credit, corporate training, and personal and professional development. For the convenience of students and employers, programs are organized on and off campus and include distance learning via Internet and television.

The academic programs in the Division of Continuing Studies are listed below. Requirements for these programs appear in Part 5 of this *Bulletin*.

Subject	*Program*
General Studies	Associate of Arts in General Studies (A.A.G.S.)
General Studies	Bachelor of General Studies (B.G.S.)

Division of Labor Studies

Through the Division of Labor Studies, Indiana University offers a Certificate in Labor Studies, a minor in labor studies, an Associate of Science in Labor Studies, and a Bachelor of Science in Labor Studies. Each combines work in a core of labor studies subjects with courses in other disciplines.

As a discipline, labor studies deals with work, the workplace, and workers and their organizations. It advances a body of knowledge that reflects the concerns of modern labor organizations.

As a program, labor studies enables participants to serve more effectively as members and leaders in their organizations. Participants can also gain a sense of the past and present contexts of work and unionism. Because union leaders need to be familiar with economics, communications, and other subjects, labor studies can assist them in mastering a broad range of learning.

The program encourages participants to make socially useful choices in carrying out the many responsibilities of union membership, union leadership, and community citizenship.

The Division of Labor Studies reports to IUPUI administration through the Indiana University School of Social Work.

Each labor-studies program enhances the knowledge and skills of those active in organized labor. Completion of a program enhances your ability to apply knowledge and skills in unions, government agencies, or educational institutions.

Admission For admission to any of these programs, you must apply directly to the labor-studies office.

General Program Requirements Both of the following degrees and the certificate in labor studies require satisfactory completion of 15 credits from among the Labor Studies Core and additional credits from among three Required Areas of Learning (see listings below). Courses in which you earn a grade of D will count only as electives.

Division of Public and Environmental Affairs

The Division of Public and Environmental Affairs (DPEA) is a multidisciplinary division affiliated with the Indiana University School of Public and Environmental Affairs (SPEA). DPEA is organized as a professional division, committed to teaching, research, and service. DPEA offers a Bachelor of Science in Public Affairs (B.S.P.A.) degree program that provides a sound general baccalaureate education combined with specialized study. Additionally, DPEA offers minors in criminal justice and public affairs. DPEA's multidisciplinary faculty and curriculum address environmental, health, public policy, and management issues from a variety of perspectives.

The academic programs in the division are listed below. Requirements for these programs appear in Part 5 of this *Bulletin.*

Subject	*Program*
Criminal Justice	Minor
Public Affairs	Minor
Public Affairs: Criminal Justice	B.S.P.A.
Public Affairs: Environmental Policy	B.S.P.A.
Public Affairs: Health Services Administration	B.S.P.A.
Pubic Affairs: Legal Studies	B.S.P.A.
Public Affairs: Public Management	B.S.P.A.
Public Affairs: Specialized Study	B.S.P.A.
Risk and Emergency Management	Certificate

Admission

Admission to DPEA requires sophomore standing and a minimum cumulative grade-point average of 2.30, and completion of ENG W131, the required mathematics course,the computer literacy course(s), and the specific SPEA core course for the major. However, you may enter into the division as a pre-SPEA student as early as your freshman year. You must be in good academic standing (cumulative GPA of 2.00 or higher, core/concentration/major GPA of 2.30 or higher) to qualify for an internship and to graduate.

Special Academic Regulation for Students in Public and Environmental Affairs

Requirements for the undergraduate degree should be completed within 10 years of admission to SPEA. You may transfer no more than 90 credit hours (60 credits from a junior college) toward a Bachelor of Science degree program. A maximum of 10 credits will be awarded on the basis of military training toward any degree from DPEA. With prior approval, you may take three courses totaling no more than 10 credit hours by correspondence through the IU Division of Extended Studies, Independent Study Program. However, you cannot satisfy a core, concentration, or major requirement by correspondence.

Good Standing in DPEA requires that you maintain a minimum semester and cumulative GPA of 2.00 and a minimum core/major GPA of 2.30. Therefore, you will be placed on academic probation if your semester, cumulative, or core/concentration GPA at the end of any regular semester is lower than these minimum standards. Once on probation, you may be dismissed from DPEA and IPFW if you fail to make significant progress toward good standing or if you fail to meet the minimum IPFW standards listed in Part 8 of this Bulletin.

DPEA Internships

As a DPEA major, you may earn a maximum of 12 hours of elective credit during your junior and senior years through the DPEA internship program, if you are a student in good standing and have obtained prior approval from the Internship Coordinator. Internships are strongly encouraged because they give you the opportunity to apply classroom theory and techniques to the real world and to network with professionals in your career field. The program is designed for maximum flexibility so that many valid learning experiences can qualify as internships. Internships can be full or part time, paid or unpaid, credit or noncredit. Interested students should contact the Coordinator of Advising and Student Services at the DPEA office for further information about internships.

Special Opportunities for Students in Public and Environmental Affairs

The IU School of Public and Environmental Affairs offers opportunities to study in Washington, D.C., through the Washington Leadership Program, as well as opportunities to study abroad through programs in The Netherlands and Australia. You should contact the DPEA office for current information about these programs.

The Accelerated Master's Program (AMP) is a competitive program for outstanding undergraduate DPEA students. If you have a GPA of 3.50 or higher, you may apply to the AMP program as early as your junior year. This program allows you to fulfill up to 24 credit hours toward the M.P.A. graduate program or 18 credit hours toward the M.P.M. graduate program by taking graduate-level SPEA courses during your senior year that can count toward both your undergraduate program and a future graduate degree program.

Richard T. Doermer School of Business and Management Sciences

Neff Hall 366 ~ 260-481-6472 ~ www.ipfw.edu/bms/

Note:

The Richard T. Doermer School of Business and Management Sciences is in the process of continual curriculum assessment and revision. Specific courses, programs, and degree requirements may change substantially during the life of a printed medium such as this *Bulletin*. You should consult your advisor about possible changes and opportunities.

General Information

The mission of the Richard T. Doermer School of Business and Management Sciences is to prepare students, primarily from northeast Indiana, for professional business careers of increasing responsibility and leadership in a global society.

To accomplish this mission, the role of the school's faculty, as a scholarly community, is

- to develop and deliver high-quality instruction
- to maintain a strong commitment to applied scholarship, with a secondary emphasis on instructional development and basic scholarship, all appearing in media of quality, and
- to share its scholarly expertise with the business community, the profession, and other constituents.

The mission reflects a continuing commitment to the importance of learning in a changing environment, supported through the interdependence of teaching, intellectual contributions, and service.

Academic Programs

The academic programs in the school are listed below. Requirements for these programs appear in Part 5 of this *Bulletin*.

Subject	*Program*
Accounting	Post-Baccalaureate Certificate
Business	Bachelor of Science (B.S.B.)
Business	Associate of Science (A.S.B.)
Business Studies	Minor

School of Education

Neff Hall 250 ~ 260-481-4146 ~ www.ipfw.edu/educ

The mission of the School of Education is to prepare professionals in teaching, counseling, and leadership who demonstrate the capacity and willingness to continuously improve schools and related entities so that they become more effective with their clients by:

- Becoming more caring, humane, and functional citizens in a global, multicultural, democratic society
- Improving the human condition by creating positive learning environments
- Becoming change agents by demonstrating reflective professional practice
- Solving client problems through clear, creative analyses
- Assessing client performance, creating and executing effective teaching, counseling, and educational leadership by utilizing a variety of methodologies reflecting current related research
- Utilizing interdisciplinary scholarship, demonstrating technological and critical literacies, and effectively communicating with all stakeholders.

Concentration	*School Setting*
Elementary:	Elementary Primary and Intermdiate (K-6)
Secondary: Early Adolescence (EA)	Middle School/Junior High (6-8)
Select two content area minors: language arts, mathematics, science, social studies	
Adolescence/Young Adulthood (AYA)	Middle School/Jr. High and High School (6-12)
Select one content area major: earth/space sciences, French, German, language arts, social studies, Spanish	

The School of Education also offers minors/certifications in each of the content areas listed above and the following:

In addition the following teaching majors are available at IPFW through the following colleges:

Major	*College*
Art Education (P-12)	Visual and Performing Arts
Chemistry Teaching	Arts and Sciences
Life Sciences Teaching	Arts and Sciences
Mathematics Teaching	Arts and Sciences
Music Education (P-12)	Visual and Performing Arts
Physics	Arts and Sciences

Teaching majors can also be completed as a part of the following B.A./B.S. programs:

Major	*College*
English	Arts and Sciences
French	Arts and Sciences
German	Arts and Sciences
Spanish	Arts and Sciences

Transition to Teaching

The School of Education also has an alternative route to teacher certification called Transition to Teaching for students who have already earned a baccalaureate degree. This one-year intense program offers teacher certification for elementary and secondary licensure at the graduate level. For a list of qualifications, prerequisites, course requirements, and general information, please contact the School of Education's Student Information Center (Neff 243).

Unit of Affiliated Programs

Office of Academic Affairs

Part 5: Program Descriptions

Baccalaureate Framework

Area (General Education) Requirements

Area I: Linguistic and Numerical Foundations

Reading/Writing (3 credits)

- ENG W131 - Elementary Composition I Cr. 3.
- ENG W140 - Elementary Composition Honors Cr. 3.

Listening/Speaking (3 credits)

- COM 11400 - Fundamentals of Speech Communication Cr. 3.

Quantitative Reasoning (3 credits)

- MA 10100 - Mathematics for Elementary Teachers I Cr. 3.
- MA 14900 - Basic and College Algebra Cr. 5.
- MA 15300 - Algebra and Trigonometry I Cr. 3.
- MA 15900 - Precalculus Cr. 5.
- MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
- POLS Y395 - Quantitative Political Analysis Cr. 3.
- SPEA K300 - Statistical Techniques Cr. 3.
- STAT 12500 - Communicating with Statistics Cr. 3.
  Note: Area I also includes a computer literacy requirement defined by the colleges/schools/divisions. Consult your academic advisor for information on the computer literacy requirement for your major.

Area II: Natural and Physical Sciences

Course List:

- ANTH B200 - Bioanthropology Cr. 3.
- AST A100 - The Solar System Cr. 3.
- AST A105 - Stars and Galaxies Cr. 3-4.
- AST L100 - Solar System Laboratory Cr. 1.
  (1 credit)
- BIOL 10000 - Introduction to the Biological World Cr. 3.
- BIOL 25000 - Women and Biology Cr. 3.
- BIOL 32700 - Biology of Aging Cr. 3.
- CHM 10400 - Living Chemistry Cr. 3.
- CHM 11100 - General Chemistry Cr. 3.
- CHM 12000 - Chemistry and Art Cr. 3.
- GEOG G107 - Physical Systems of the Environment Cr. 3.
- GEOG G109 - Weather and Climate Cr. 3.
- GEOL G100 - General Geology Cr. 3-5.
- GEOL S100 - General Geology Honors Cr. 5.
- GEOL G103 - Earth Science: Materials and Processes Cr. 3.
- GEOL G104 - Earth Science: Evolution of the Earth Cr. 3.
- GEOL G210 - Oceanography Cr. 3.
- GEOL L100 - General Geology Laboratory Cr. 1-2.
  (1 credit)
- IDIS G102 - Freshman Seminar/Physical and Natural World Cr. 3.
- PHYS 10500 - Sound and Music Cr. 3.
- PHYS 11500 - Introduction to Lasers Cr. 3.
- PHYS 12000 - Physics of Sports Cr. 3.
- PHYS 12500 - Light and Color Cr. 3.

- PHYS 12700 - Physics for Computer Graphics and Animation Cr. 3.
- PHYS 13100 - Concepts in Physics I Cr. 3.
- PHYS 13200 - Concepts in Physics II Cr. 3.
- PHYS 13500 - The First Three Minutes Cr. 3.
- PHYS 13600 - Chaos and Fractals Cr. 3.

Area III: The Individual, Culture, and Society

Course List:

- AFRO A210 - The Black Woman in America Cr. 3.
- ANTH E105 - Culture and Society Cr. 3.
- ANTH L200 - Language and Culture Cr. 3.
- ANTH P200 - Introduction to Prehistoric Archaeology Cr. 3.
- BUS W100 - Principles of Business Administration Cr. 3.
- CDFS 25500 - Introduction to Couple and Family Relationships Cr. 3.
- COM 25000 - Mass Communication and Society Cr. 3.
- COM 30300 - Intercultural Communication Cr. 3.
- ECON E200 - Fundamentals of Economics Cr. 3.
- ECON E201 - Introduction to Microeconomics Cr. 3.
- ENG L364 - Native American Literature Cr. 3.
- FOLK F101 - Introduction to Folklore Cr. 3.
- FOLK F111 - Introduction to World Folk Music Cr. 3.
- GERN G231 - Introduction to Gerontology Cr. 3.
- HIST H105 - American History I Cr. 3.
- HIST S105 - American History Honors To 1877 Cr. 3.
- HIST H106 - American History II Cr. 3.
- HIST S106 - American History Honors Since 1877 Cr. 3.
- HIST H113 - History of Western Civilization I Cr. 3.
- HIST H114 - History of Western Civilization II Cr. 3.
- HIST H232 - The World in the 20th Century Cr. 3.
- HIST S232 - The World in the 20th Century - Honors Cr. 3.
- HSRV 35000 - Drugs and Society Cr. 3.
- IDIS G103 - Freshman Seminar/The Individual, Culture, and Society Cr. 3.
- IET 10500 - Industrial Management Cr. 3.
- INTL I200 - Introduction to International Studies: Emerging Global Visions Cr. 3.
- JOUR C200 - Mass Communications Cr. 3.
- JOUR J110 - Foundations of Journalism and Mass Communication Cr. 3.
- LING L103 - Introduction to the Study of Language Cr. 3.
- NUR 30900 - Transcultural Healthcare Cr. 3.
- OLS 25200 - Human Relations in Organizations Cr. 3.
- OLS 26800 - Elements of Law Cr. 3.
- PACS P200 - Introduction to Peace and Conflict Studies - Humanities Perspectives Cr. 3.
- POLS S103 - Introduction to American Politics - Honors Cr. 3.
- POLS S211 - Introduction to Law - Honors Cr. 3.
- POLS Y103 - Introduction to American Politics Cr. 3.

- POLS Y105 - Introduction to Political Theory Cr. 3.
- POLS Y107 - Introduction to Comparative Politics Cr. 3.
- POLS Y109 - Introduction to International Relations Cr. 3.
- POLS Y211 - Introduction to Law Cr. 3.
- PSY 12000 - Elementary Psychology Cr. 3.
- PSY 12000 - Elementary Psychology - Honors Cr. 3.
- PSY 24000 - Introduction to Social Psychology Cr. 3.
- PSY 33500 - Stereotyping and Prejudice Cr. 3.
- PSY 35000 - Abnormal Psychology Cr. 3.
- SOC S161 - Principles of Sociology Cr. 3.
- SOC S163 - Social Problems Cr. 3.
- SPEA E162 - Environment and People Cr. 3.
- SPEA H120 - Contemporary Health Issues Cr. 1-3.
- SPEA J101 - The American Criminal Justice System Cr. 3.
- SPEA V170 - Introduction to Public Affairs Cr. 3.

Area IV: Humanistic Thought

Course List:

- CLAS C205 - Classical Mythology Cr. 3.
- CMLT C217 - Detective and Mystery Literature Cr. 3.
- COM 24800 - Introduction to Media Criticism and Analysis Cr. 3.
- ENG L101 - Western World Masterpieces I: Ancient to Renaissance Cr. 3.
- ENG L102 - Western World Masterpieces II: Renaissance to Modern Cr. 3.
- ENG L108 - Introduction to Contemporary Literature Cr. 3.
- ENG L150 - Representative American Writers Cr. 3.
- ENG L250 - American Literature Before 1865 Cr. 3.
- ENG L251 - American Literature Since 1865 Cr. 3.
- ENG L301 - Critical and Historical Survey of English Literature I Cr. 3.
- ENG L302 - Critical and Historical Survey of English Literature II Cr. 3.
- FILM K101 - Introduction to Film Cr. 3.
- FINA A170 - Women Artists/The Visual Arts Cr. 3.
- FINA H101 - Art Appreciation Cr. 3.
- FINA H111 - Ancient and Medieval Art Cr. 3.
- FINA H112 - Renaissance Through Modern Art Cr. 3.
- FINA H401 - Art Theory IV Cr. 3.
- FINA H415 - Art of Pre-Columbian America Cr. 3.
- FOLK F254 - Social History of Rock and Roll Cr. 3.
  Because of significant overlapping content, students may count either FOLK F254 or MUS Z201 toward the Area IV requirement, but not both.
- FREN F310 - Topics in French Literature in Translation Cr. 3.
- FWAS H201 - Humanities I: The Ancient World Cr. 3.
- FWAS H202 - Humanities II: Foundations of the Modern Western World Cr. 3.
- HON H101 - Ideas and Human Experience Cr. 1-3.
- IDIS G104 - Freshman Seminar/ Humanistic Thought Cr. 3.
- ILCS I208 - International Cinema Cr. 3.

-with topic "Contemporary Problems an Issues";   formerly INTL I208

- INTR 22000 - Architecture and Urban Form Cr. 3.
- INTR 32000 - Architecture and Urban Form in the Modern World Cr. 3.
- INTR 33000 - Culture and Design: A Cross-Culture Comparison of Architecture Cr. 3
- MUS N101 - Music for the Listener - Honors Cr. 3.
- MUS Z101 - Music for the Listener Cr. 3.
- MUS Z105 - Traditions in World Music Cr. 3.
- MUS Z201 - History of Rock and Roll Music Cr. 3.
  Because of significant overlapping content, students may count either FOLK F254 or MUS Z201 toward the Area IV requirement, but not both.
- MUS Z393 - History of Jazz Cr. 3.
- PHIL 11000 - Introduction to Philosophy Cr. 3.
- PHIL 11100 - Ethics Cr. 3.
- PHIL 11200 - Religion and Culture Cr. 3.
- PHIL 12000 - Critical Thinking Cr. 3.
- PHIL 15000 - Principles of Logic Cr. 3.
- PHIL 31200 - Medical Ethics Cr. 3.
- PHIL 35100 - Philosophy of Science Cr. 3.
- REL 11200 - Religion and Culture Cr. 3.
- REL 23000 - Religions of the East Cr. 3.
- REL 23100 - Religions of the West Cr. 3.
- REL 30100 - Islam Cr. 3
- THTR 20100 - Theatre Appreciation Cr. 3.

Area V: Creative and Artistic Expression

Course List:

- DANC 10200 - Ballet I Cr. 2.
- DANC 10300 - Jazz Dance I Cr. 2.
- DANC 12100 - Tap Dance I Cr. 2.
- ENG W103 - Introductory Creative Writing Cr. 3.
- ENG W203 - Creative Writing Cr. 3.
- ENGR 12000 - Graphical Communications and Spatial Analysis Cr. 2.
- FINA N108 - Introduction to Drawing for Nonmajors Cr. 3.
- FINA S105 - Introduction to Design Cr. 3.
- FINA S165 - Ceramics for Nonmajors Cr. 3.
- JOUR J210 - Visual Communication Cr. 3.
- MUS L153 - Introduction to Music Therapy Cr. 3.
- MUS Z140 - Introduction to Musical Expression Cr. 3.
- THTR 13400 - Fundamentals of Performance Cr. 3.
- VCD N274 - Digital Imaging Cr. 3.

Area VI: Inquiry and Analysis

All inquiry and analysis courses have a prerequisite of "Completion of foundation skills requirement." Some courses may also have specific prerequisites. Inquiry and Analysis courses are not open to students with freshman status.

Course List:

- ANTH E335 - Ancient Civilizations of Mesoamerica Cr. 3.
- ANTH P370 - Ancient Cultures of South America Cr. 3.
- BIOL 30400 - Major Ideas in Biology (Honors Course) Cr. 3.
- BIOL 31700 - Addictions: Biology, Psychology, and Society Cr. 3.
- BIOL 32600 - Heredity: A Human Perspective (Honors Course) Cr. 3.
- BIOL 34900 - Environmental Science Cr. 3.
- CHM 22400 - Introductory Quantitative Analysis Cr. 4.
- CMLT C333 - Romanticism Cr. 3.
- CMLT C337 - The 20th Century: Tradition and Change Cr. 3.
- COM 31600 - Controversy in American Society Cr. 3.
- CS 30600 - Computers in Society Cr. 3.
- ECON E306 - Undergraduate Seminar in Economics Cr. 3.
  with topic "Contemporary Problems and Issues"
- ECON E340 - Introduction to Labor Economics Cr. 3.
- EDUC E346 - Discipline/Parenting for Young Children Cr. 3.
- EDUC K410 - Trends and Issues in Special Education Cr. 3.
- ENG L399 - Junior Seminar Cr. 3.
- ENG W421 - Technical Writing Projects Cr. 1-3.
- ENG W462 - Studies in Rhetoric and Composition Cr. 3.
- FILM K390 - The Film and Society Cr. 3.
- FOLK F305 - Asian Folklore Cr. 3.
- GEOL G300 - Environmental and Urban Geology Cr. 3.
- GEOL G305 - Geologic Fundamentals in Earth Science Cr. 3-5.
- HIST A313 - Origins of Modern America Cr. 3.
- HIST D426 - History of Balkans: 1914 to Present Cr. 3.
- HON H300 - Interdepartmental Colloquium Cr. 1-3.
- HON H302 - Interdepartmental Colloquium Cr. 1-3.
- LING L303 - Introduction to Linguistic Analysis Cr. 3.
- LING L360 - Language in Society Cr. 3.
- MA 31400 - Introduction to Mathematical Modeling Cr. 3.
- MUS L418 - Psychology of Music Cr. 3.
- MUS U410 - Creative Arts, Health, and Wellness Cr. 3.
- NUR 33900 - Research in Healthcare Cr. 3.
- OLS 45400 - Gender and Diversity in Management Cr. 3.
- OLS 49600 - Leading Change: Theory and Practice Cr. 3.
- PHIL 30300 - History of Modern Philosophy Cr. 3.
- PHIL 30400 - 19th Century Philosophy Cr. 3.
- PHYS 30200 - Puzzles, Strategy Games, and Problem Solving in the Physical Sciences Cr. 3.
- PHYS 32500 - Scientific Computing Cr. 3.
- PHYS 34200 - Modern Physics Cr. 3.
- POLS S401 - Studies in Political Science-Honors Cr. 3.
- POLS Y306 - State Politics in the United States Cr. 3.

- POLS Y307 - Indiana State Government and Politics Cr. 3.
- POLS Y335 - Western European Politics Cr. 3.
- POLS Y339 - Middle Eastern Politics Cr. 3.
- POLS Y340 - East European Politics Cr. 3.
- POLS Y350 - Politics of the European Union Cr. 3.
- POLS Y360 - U.S. Foreign Policy Cr. 3.
- POLS Y376 - International Political Economy Cr. 3.
- POLS Y401 - Studies in Political Science Cr. 3.
- POLS Y490 - Senior Seminar in Political Science Cr. 3.
- PSY 31700 - Addictions: Biology, Psychology and Society Cr. 3.
- PSY 33400 - Cross Cultural Psychology Cr. 3.
- PSY 34500 - Psychology of Women Cr. 3.
- PSY 35300 - Social and Personality Development in Children Cr. 3.
- PSY 36200 - Human Development II: Adolescence Cr. 3.
- PSY 36500 - Development of Gender Roles in Children Cr. 3.
- PSY 36700 - Adult Development and Aging Cr. 3.
- PSY 37100 - Death and Dying Cr. 3.
- PSY 44400 - Human Sexual Behavior Cr. 3.
- PSY 46000 - Advanced Abnormal Psychology Cr. 3.
- SOC S309 - The Community Cr. 3.
- SOC S314 - Social Aspects of Health and Medicine Cr. 3.
- SOC S315 - Work and Occupations Cr. 3.
- SOC S316 - The Family Cr. 3.
- SOC S320 - Deviant Behavior and Social Control Cr. 3.
- SOC S325 - Criminology Cr. 3.
- SOC S328 - Juvenile Delinquency Cr. 3.
- SOC S360 - Topics in Social Policy Cr. 3.
- SPEA E400 - Topics in Environmental Studies Cr. 3.
- SPEA H371 - Human Resource Management in Healthcare Facilities Cr. 3.
- SPEA H422 - The Social Epidemics: AIDS, Violence, and Substance Abuse Cr. 3.
- SPEA V348 - Management Science Cr. 3.
- SPEA V371 - Financing Public Affairs Cr. 3.
- SPEA V373 - Human Resources Management in the Public Sector Cr. 3.
- SPEA V450 - Contemporary Issues in Public Affairs (Honors Course) Cr. 1-3.
- STAT 34000 - Elementary Statistical Methods II Cr. 3.
- THTR 47000 - Theatre and Society I Cr. 3.
- THTR 47100 - Theatre and Society II Cr. 3.
- WOST W301 - International Perspectives on Women Cr. 3.

Associate

Architectural Engineering Technology (A.S.)

Program: A.S.
Department of Manufacturing & Construction Engineering Technology and

Interior Design
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 221 ~ 260-481-4127 ~ www.mcet.ipfw.edu

The student learning outcomes for the degree are as follows:

- An appropriate mastery of the knowledge, techniques, skills and modern tools of their disciplines.
- Employing concepts of architectural theory and design in a design environment.
- Utilizing modern instruments, methods and techniques to produce A/E documents and presentations.
- Conducting standardized field and laboratory testing on construction materials.
- Utilizing modern instruments and research techniques for site development and building layout.
- Estimating material quantities for technical projects.
- Utilizing codes, contracts and specifications in design, construction and inspection activities.
- An ability to apply current knowledge and adapt to emerging applications of mathematics, science, engineering and technology.
    - Utilize current industry standard equipment.
    - Employing productivity software to solve technical problems.
- An ability to conduct, analyze and interpret experiments and apply experimental results to improve processes.
    - Conduct, analyze, and interpret experiments than apply results.
- An ability to apply creativity in the design of systems, components or processes appropriate to program objectives.
    - In-class projects requiring design decisions.
    - Student design projects for external presentation.
- An ability to function effectively on teams.
    - Actively participate in team activities during and outside class.
    - Orally and graphically present teams results.
- An ability to identify, analyze and solve technical problems.
    - Determine forces and stresses in elementary structural systems.
    - Calculate basic loads & demands in mechanical/electrical systems.
    - Solve problems in math, statistics, and physics courses.
- An ability to communicate effectively.
    - Demonstrate effective oral communication skills.
    - Demonstrate effective written communication skills.
    - Demonstrate effective graphic communication skills
- A recognition of the need for, and an ability to engage in lifelong learning.
    - Require library research and reporting.
    - Require Web research and reporting.
- An ability to understand professional, ethical and social responsibilities.
    - Demonstrate knowledge of professional code of ethics.
    - Service leaning component.
- A respect for diversity and knowledge of contemporary professional, societal and global issues.
    - Social studies elective.
    - Exposure to other cultures building practices.
- A commitment to quality, timeliness, and continuous improvement.
    - Quality and timeliness is required aspect of course.
    - Course evaluation performed each semester.

Mission

To provide employers and the public of northeast Indiana with educated, technologically equipped graduates, able to serve the varied construction industries (represented by architectural, civil, and construction engineering technologies, and interior design) in advancing the solutions to problems facing the public and private sector.

Goals

- To provide education of the traditional and returning adult student for career success in the construction industry
- To develop a respect for diversity and a knowledge of contemporary professional, societal, and global issues with an understanding of professional and ethical responsibilities.
- To be responsive to the ever-changing technologies of the construction industries.
- To instill in students the desire for and ability to engage in lifelong learning.

The breadth of the curriculum will provide leadership potential in addressing problems of the region, its people, and its industries.

This program helps you prepare for technical employment with architects, engineers, builders, materials suppliers, and related government agencies. You may work in drafting, architectural detailing, construction expediting, estimating, or sales. Graduates with experience hold jobs as senior drafting personnel, architectural job captains, construction supervisors, and contractors. This program also prepares you to work toward a bachelor's degree in construction engineering technology. The architectural engineering technology program is not a professional architecture program and will not lead to licensure as a registered architect.

The department offers related majors in civil engineering technology and construction engineering technology. All three programs are accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone, 410-347-770. The programs provide problem solving skills, hands-on competency, and required state-of-the-art technical knowledge. Alumni of the department are employed in all areas of the building industry, including construction; architecture; interior design; civil engineering; land surveying; and state, county, and city governments.

To earn the A.S. with a major in architectural engineering technology, you must fulfill the requirements of IPFW (see Part 8); the College of Engineering, Technology, and Computer Science (see Part 4); and those described below:

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations Credits: 11

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
- MA 15900 - Precalculus Cr. 5.

Area III—The Individual, Culture, and Society Credits: 3

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 3

- INTR 22000 - Architecture and Urban Form Cr. 3.

ETCS General Distribution Requirements Credits: 11

- PHYS 21800 - General Physics Cr. 4.
- PHYS 21900 - General Physics II Cr. 4.
- STAT 30100 - Elementary Statistical Methods I Cr. 3.

Core and Concentration (Major) Courses Credits: 39

- ARET 12300 - Construction Graphic Communication Cr. 3.
- ARET 12400 - Architectural Engineering Construction I Cr. 3.
- ARET 16700 - Construction Systems and Materials Cr. 3.
- ARET 22200 - Architectural Engineering Construction II Cr. 3.
- ARET 28100 - Environmental Equipment for Buildings I Cr. 3.
- ARET 28200 - Environmental Equipment for Buildings II Cr. 3.
- CET 10400 - Elementary Surveying Cr. 3.
- CET 26600 - Materials Testing Cr. 3.
- CNET 27600 - Specs, Contracts, and Codes Cr. 3.
- CNET 28000 - Quantity Estimating Cr. 3.
- ET 19000 - Statics Cr. 3.
- ET 20000 - Strength of Materials Cr. 3.
- INTR 12100 - Freehand Sketching Cr. 3.

Total Credits: 67

Biology Concentration (A.A.)

Program: Concentration A.A.
Department of Biology
College of Arts and Sciences

Science Building 330 ~ 260-481-6305 ~ www.ipfw.edu/bio

The student learning outcomes for the degree are as follows:

- Students should have demonstrated comprehension of basic biological principles and theories and a demonstrated ability to apply theories and principles to problem solving.
- Provide coursework and advising for students who seek employment after the A.A. degree or who expect to continue their undergraduate education with the intent of earning a B.S. degree in Biology.

The associate of arts degree requires courses that satisfy the IPFW general education program and requirements in the concentration. The degree requires a total of 63 credits, most of which are fulfilled by required courses. If you plan to continue for a bachelor's degree, see Part 5 for B.S. requirements in biology, biology teaching, and medical technology.

IPFW General Education Requirements

Area I—Linquistic and Numerical Foundations Credits: 9

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.

- MA 15300 - Algebra and Trigonometry I Cr. 3.
  (credits included in Concentration Requirements, below)
  Or
- MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.
  (credits included in Concentration Requirements, below)

Area II—Natural and Physical Sciences Credits: 8

- BIOL 11700 - Principles of Ecology and Evolution Cr. 4.
  (credits included in Concentration Requirements, below)
- CHM 11600 - General Chemistry Cr. 4.
  (credits included inConcentration Requirements, below)

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Concentration Requirements

A grade of C or higher requred in each course.

- BIOL 11700 - Principles of Ecology and Evolution Cr. 4.
- BIOL 11900 - Principles of Structure and Function Cr. 4.
- BIOL 21800 - Genetics and Molecular Biology Cr. 4.
- CHM 11500 - General Chemistry Cr. 4.
- CHM 11600 - General Chemistry Cr. 4.
- MA 15300 - Algebra and Trigonometry I Cr. 3.
  Or
- MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.

One of the following Credits: 3

- ETCS 10600 - Introduction to Computers Cr. 3.
  Or
- STAT 24000 - Statistical Methods for Biology Cr. 3.

Two semester, 8 credit sequence in organic chemistry

One of the following Credits: 3-4

- BIOL 21700 - Intermediate Ecology Cr. 3.
  Or
- BIOL 21900 - Principles of Functional Biology Cr. 4.

Credits in the first year of a foreign language Credits: 8

Additional credits in approved elective courses Credits: 4-12

Total credits with a graduation GPA of at least 2.00: 60-63

Business (A.S.B.)

Program: A.S.B.
SBMS Undergraduate Student Affairs Center
Richard T. Doermer School of Business and Management Sciences

Neff Hall 366 ~ 260-481-6472 ~ www.ipfw.edu/bms

Upon completion of the Associate Degree in Business, students will be able to:

- Identify, define, describe and/or discuss fundamental business terminology and concepts
- Extract, analyze, and summarize data into useful business information
- Demonstrate effective verbal skills
- Demonstrate effective written skills

Business Administration

The A.S.B. option in business administration is a preprofessional degree. The academic program leading toward the degree helps you prepare for careers at the operational level of business.

All credits earned in the business administration option can be applied toward the Bachelor of Science in Business if you qualify for admission to that program.

Degree Requirements

You must satisfy the requirements of IPFW (see Part 8) and the Richard T. Doermer School of Business and Management Sciences (listed in this section) and earn a minimum of 63 credits in courses in (1) general education and (2) general business and economics.

To remain in the program and graduate, you must earn a grade of C or better in all ENG writing courses and all business and economics courses, and maintain a cumulative GPA of 2.00 or better. Courses completed by correspondence are not applicable (this pertains only to traditional correspondence courses, not online courses.) Business majors may not count BUS, ECON or OLS courses towards their general education requirements

TIME LIMIT It is the school's intention that you possess the most current knowledge and skills when you complete the A.S.B. Because of this, you are allowed four calendar years to complete this degree from the semester you are admitted to IPFW. If more than four years have elapsed since your admission, you will be required to meet the degree requirements sepcified in the most current IPFW Bulletin.

OVERLAPPING COURSES You may not count toward graduation any courses or sequences considreed to have overlapping content.

CREDIT BY SELF_ACQUIRED COMPETENCY IPFW busines programs do not award credit for self-acquired competency (experiential credit). Credit awarded on this basis, regardless of its source, will not apply toward IPFW business degrees.

ACADEMIC PROBATION You are on academic probation upon completion of a semester or summer session in which you fail to earn a semester GPA of 2.0 or higher.

IPFW General Education Requirements (41 credits)

Area I—Linguistic and Numerical Foundations Credits: 9

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
- MA 15300 - Algebra and Trigonometry I Cr. 3.
  (or an approved substitute with placement beyond MA 153)

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society Credits: 6

- PSY 12000 - Elementary Psychology Cr. 3.
- SOC S161 - Principles of Sociology Cr. 3.

Area IV—Humanistic Thought Credits: 6

- Additional credits in Area IV: 3
- PHIL 11100 - Ethics Cr. 3.

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Additional General Education Credits: 12

Business and Economics Requirements (22 credits)

- BUS A201 - Principles of Financial Accounting Cr. 3.
- BUS A202 - Principles of Managerial Accounting Cr. 3.
- BUS K200 - Computer Literacy Concepts for Business Cr. 0.
- BUS K211 - Spreadsheets for Business Cr. 1.
- BUS K212 - Introduction to Database Management Cr. 1.
- BUS K213 - Internet Literacy for Business Cr. 1.

- BUS L200 - Elements of Business Law Cr. 3.
- BUS W204 - Social, Legal, and Ethical Implications of Business Decisions Cr. 3.
- ECON E201 - Introduction to Microeconomics Cr. 3.
- ECON E202 - Introduction to Macroeconomics Cr. 3.

Note

As the requirements for the Bachelor of Science in Business change, the requirements for the A.S.B. option in business administration are also likely to change in order to ensure that the credits in this option can be applied toward the B.S.B.

Total Credits: 63

Chemical Methods (A.S.)

Program: A.S.
Department of Chemistry
College of Arts and Sciences

Science Building 496 ~ 260-481-6289 ~ www.ipfw.edu/chem

The student learning outcomes for the degree are as follows:

- **Mathematical and quantitative reasoning**
  Students will be able to analyze, synthesize, and comprehend experimental and computational data describing the physical universe.
- **Classical and instrumental laboratory techniques: both analytical and synthetic**
  Students will learn precise measuring techniques as well as careful and meticulous record keeping. They will master the use of a variety of modern instruments and will become proficient in fundamental organic synthetic methods
- **Individual and collaborative problem-solving**
  The student will develop independent problem-solving skills as well as the ability to work collaboratively in a term environment.
- **Summary of key concepts**
  In the teaching of Chemistry from the point-of-view of various sub-disciplines, the following concepts form the core course content. It should be noted that courses offered by the IPFW Department of Chemistry will include, but are not simply limited to, the following points of emphasis:
- Analytical Chemistry
  -- Analytical methods (classical and instrumental)
  -- Sensitivity and detection limits
  -- Statistical treatment of data
- General Chemistry
  -- Semi-quantitative microscopic model of the physical universe based on macroscopic observations
  -- Terminology
  -- Periodic relationships
  -- Elementary computational skills
  -- Introductory laboratory skills

- Organic Chemistry
  - -- Chemical bonding and structure including valence bond and molecular orbital theories
  - -- Reactivity, reaction mechanisms, and properties of the important functional groups
  - -- Synthesis
  - -- Spectroscopic determination of structure
  - -- Material science and bio-organic chemistry

The Associate of Science with a major in chemical methods program helps you prepare for a career as a chemical technician. Many industries have found it desirable to employ persons with a basic knowledge of chemistry. Such industries may be concerned with implementing or monitoring safe waste-disposal procedures, conducting standardized testing that uses routine chemical procedures, observing and measuring properties of materials following some type of compounding procedure, or recording data and making calculations that require some knowledge of chemistry. The A.S. with the major in chemical methods is a technical degree designed to meet such needs and is not recommended for students who wish to pursue a bachelor's program.

To earn the A.S. with a major in chemical methods, you must fulfill the requirements of IPFW (see Part 8) and complete the following courses. In addition, you must earn a grade of C or higher for each of the chemistry core courses.

IPFW General Education Requirements

Area I—Linquistic and Numerical Foundations Credits: 9

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
- MA 15300 - Algebra and Trigonometry I Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Chemistry Core

- CHM 11500 - General Chemistry Cr. 4.
- CHM 11600 - General Chemistry Cr. 4.
- CHM 22400 - Introductory Quantitative Analysis Cr. 4.
- CHM 25400 - Organic Chemistry Laboratory Cr. 1.
- CHM 25500 - Organic Chemistry Cr. 3.
- CHM 25600 - Organic Chemistry Cr. 3.
- CHM 25800 - Organic Chemistry Laboratory Cr. 1.

Supporting Courses

- Credits in computer science Credits: 3–4
- ENG W233 - Intermediate Expository Writing Cr. 3.
- MA 22700 - Calculus for Technology I Cr. 4.
- PHYS 21800 - General Physics Cr. 4.
- PHYS 21900 - General Physics II Cr. 4.

Electives Credits: 12–13

Total Credits: 61–63

Civil Engineering Technology (A.S.)

Program: A.S.
Department of Manufacturing and Construction Engineering Technology and Interior Design
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 221 ~ 260-481-4127 ~ www.mcet.ipfw.edu

The student learning outcomes for the degree are as follows:

- An appropriate mastery of the knowledge, techniques, skills and modern tools of their disciplines.
- Utilize graphic techniques to produce engineering documents.
- Utilize modern surveying methods for land measurement and/or construction layout.
- Estimate material quantities for technical projects.
- An ability to apply current knowledge and adapt to emerging applications of mathematics, science, engineering and technology.
  - Utilize current industry standard equipment.
  - Employ productivity software to solve technical problems.
- An ability to conduct, analyze and interpret experiments and apply experimental results to improve processes.
  - conduct standardized field and laboratory testing of materials.
- An ability to apply creativity in the design of systems, components or processes appropriate to program objectives.
  - In-class projects requiring design decisions.
- An ability to function effectively on teams.
  - Actively participate in team activities during and outside class.
  - Resolve problems as they arise.
- An ability to identify, analyze and solve technical problems.
  - Determine forces and stresses in elementary structural systems.
  - Solve pressure flow problem.
  - Solve open channel flow problem
  - Close a traverse survey.
- An ability to communicate effectively.
  - Demonstrate effective oral communication skills.
  - Demonstrate effective written communication skills.
  - Demonstrate effective graphic communication skills.
- A recognition of the need for, and an ability to engage in lifelong learning.
  - Require library research and reporting.
  - Require Web research and reporting.
- An ability to understand professional, ethical and social responsibilities.
  - Demonstrate knowledge of professional code of ethics.
  - Demonstrate knowledge of professional code of ethics.
  - Service learning component.
- A respect for diversity and a knowledge of contemporary professional, societal and global issues.
  - Social studies elective.

- o   Humanities elective.
- A commitment to quality, timeliness, and continuous improvement.
  - o   Quality and timeliness is required aspect of course.
  - o   Course evaluation performed each semester, software updates.

To earn the A.S. with a major in civil engineering technology, you must fulfill the requirements of IPFW (see Part 8); the College of Engineering, Technology, and Computer Science (see Part 4); and those described below:

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations Credits: 11

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
- MA 15900 - Precalculus Cr. 5.

Area III—The Individual, Culture, and Society Credits: 3

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 3

See Part 2 General Education Requirements for approved courses

ETCS General Distribution Requirements (11 credits)

- PHYS 21800 - General Physics Cr. 4.
- PHYS 21900 - General Physics II Cr. 4.
- STAT 30100 - Elementary Statistical Methods I Cr. 3.

Core and Concentration (Major) Courses (40 credits)

- ARET 12300 - Construction Graphic Communication Cr. 3.
- ARET 12400 - Architectural Engineering Construction I Cr. 3.
- ARET 16700 - Construction Systems and Materials Cr. 3.
- CET 10400 - Elementary Surveying Cr. 3.
- CET 10800 - Route Surveying and Design Cr. 3.
- CET 20600 - Construction Surveying Cr. 3.
- CET 20900 - Land Surveying and Subdivision Cr. 3.
- CET 25300 - Hydraulics and Drainage Cr. 3.
- CET 26600 - Materials Testing Cr. 3.
- CNET 27600 - Specs, Contracts, and Codes Cr. 3.
- CNET 28000 - Quantity Estimating Cr. 3.
- ET 19000 - Statics Cr. 3.
- ET 20000 - Strength of Materials Cr. 3.

Total Credits: 68

Commercial Art (A.S.)

Program: A.S. in Commercial Art
Department of Visual Communication and Design
College of Visual and Performing Arts

Visual Arts Building 213 ~ 260-481-6709 ~ www.ipfw.edu/vpa/vcd

The student learning outcomes for the degree are as follows:

Visual communication and Design provides an exceptional professional degree program which combines creative development in an artistic discipline with career preparation. Visual Communication and Design students demonstrate:

- Effective skills in written, oral, and multimedia communication while articulating their ideas in an appropriate media.
- Visual information literacy skills and quantitative reasoning as a means of gaining written and visual knowledge while drawing reliable conclusions in their chosen discipline.
- Critical thinking and problem solving while also evaluating their ideas and technological competencies.
- Artistic and scholarly collaboration with continuous personal growth to the highest levels of personal integrity and professional ethics.
- Knowledge and skills based upon an understanding of historical traditions that formed ones own and other cultures.
- A commitment to mutual respect through free and open visual inquiry and communication.

This two-year program helps an individual prepare for entry-level employment opportunities in the applied arts, including illustration, layout, package design, display/exhibit design, and computer imaging. An exit portfolio review is required of all A.S. degree seeking students. Upon completion of the A.S. program and a successful portfolio presentation, a student may choose to enter the B.F.A. program in computer art, graphic design, or photography.

To earn the A.S. in commercial art, students must fulfill the requirements of IPFW and the College of Visual and Performing Arts, complete curriculum requirements, and earn a grade of C or better in each required VCD course.

IPFW General Education Requirements Credits: 18

Area I—Linguistic and Numerical Foundations

See Part 2 General Education Requirements for approved courses

- *Quantitative reasoning course Credits: 3*
- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.

Areas II–IV Credits: 9

See Part 2 General Education Requirements for approved courses

Foundations Credits: 12

- FINA P121 - Drawing Fundamentals I-II Cr. 3.

- FINA P122 - Drawing Fundamentals I-II Cr. 3.
- FINA P151 - Design Fundamentals I-II Cr. 3.
- FINA P152 - Design Fundamentals I-II Cr. 3.

Art History Credits: 6

- FINA H111 - Ancient and Medieval Art Cr. 3.
- FINA H112 - Renaissance Through Modern Art Cr. 3.

Studio Credits: 27

- Studio electives in VCD or FINA Credits
- VCD P253 - Principles of Graphic Design I Cr. 3.
- VCD P254 - Principles of Graphic Design II Cr. 3.
- VCD P261 - Layout and Finished Art Cr. 3.
- VCD P271 - Illustration I Cr. 3.
- VCD P272 - Illustration II Cr. 3.
- VCD P273 - Computer Art and Design I Cr. 3.

Total Credits: 63

Dental Hygiene (A.S.)

Program: A.S. in Dental Hygiene
Department of Dental Education
College of Health and Human Services

Neff Hall 150 ~ 260-481-6837 ~ www.ipfw.edu/dental

The A.S. in Dental Hygiene program prepares students for a career as a dental health professional who specializes in educational, preventive, and therapeutic oral healthcare. The dental hygiene program involves one year of prerequisite courses and two years of dental hygiene courses, and combines didactic, laboratory, and clinical courses. The program offers a full-time curriculum that is accredited by the Commission on Dental Accreditation of the American Dental Association, 211 E. Chicago Ave. # 780, Chicago IL 60611-6983, telephone: (312) 440-2500, http://www.ada.org

Dental hygienists who graduate with an Associates degree are required to take national, regional and state licensing examinations and are eligible to work in private dental offices, dental clinics and hospitals, public health facilities, and dental research facilities.

The student learning outcomes for the degree are as follows:

- Demonstrate breadth of knowledge in principles of social sciences, basic and dental sciences.

- Demonstrate proficiency in assessing, planning, treating, and evaluating oral conditions and diseases.

- Interpret, evaluate and contribute to current dental research and apply that knowledge to demonstrate dental hygiene skills necessary for life-long learning.

- Demonstrate the highest levels of personal integrity and professional ethics in the delivery of dental hygiene services.

- Promote the dental hygiene profession through service learning activities, affiliations with professional organizations, and partnerships with the community.

- Design, implement, and evaluate community oral health programs appropriate for the diverse, multicultural communities in northeastern Indiana.

- Demonstrate knowledge and skills necessary to be responsible dental professionals and leaders in local, regional, national, and international organizations and communities.

- Demonstrate proficiency in critical thinking, reasoning, questioning, and decision-making skills.

- Demonstrate the written, oral, and multimedia skills necessary to communicate effectively in diverse professional and educational settings for multicultural audiences.

Admission Criteria

Admission to the Dental Hygiene program is limited and competitive, and admission to IPFW does not confer acceptance to the Dental Hygiene program. To be admitted to the A.S. program, prospective dental hygiene students must first be admitted to IPFW as a pre-dental hygiene student, complete the prerequisite courses listed below (or equivalent courses at another accredited college or university), then apply separately to the Dental Hygiene program. Applications for acceptance into the Dental Hygiene program **MUST BE received by February 1**, for admission into the program in the following fall semester.

Prerequisite Courses

To apply for the A.S. in Dental Hygiene program, you must complete the prerequisite courses listed below by May 25 of the application year with a prerequisite GPA of 3.3 or higher:

- BIOL 20300 - Human Anatomy and Physiology Cr. 4.
- BIOL 20400 - Human Anatomy and Physiology Cr. 4.
- CHM 11100 - General Chemistry Cr. 3.
- CHM 11200 - General Chemistry Cr. 3.
- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
- PSY 12000 - Elementary Psychology Cr. 3.
- SOC S161 - Principles of Sociology Cr. 3.

Total Credits: 26

Corequisite course

NOTE: Microbiology (BIOL 220) must be completed prior to beginning the Dental Hygiene professional program. Since Microbiology is not calculated into the prerequisite GPA for admission, it may be completed during summer sessions, just prior to admission into the dental hygiene program. However, the student's acceptance is based on successful completion of Microbiology with a grade of C- or better prior to the beginning of Fall semester. Failure to complete this required corequisite course with a C- or better will result in the student being withdrawn from the professional program and their position given to the next qualified applicant.

- BIOL 22000 - Microbiology for Allied Health Professionals Cr. 4.

Class Selection Process

Applicants must maintain a GPA of 3.3 or higher for these prerequisite courses. Meeting the minimum GPA does NOT guarantee a position in the program. Applicants are ranked and accepted each year based on their prerequisite GPA. Therefore, the GPA necessary for admission varies each year with the applicant pool. Admission is competitive and a prerequisite GPA of at least 3.6 or higher is recommended. In the event of multiple applicants who have the same prerequisite GPA, they will be ranked within that prerequisite GPA level by their cumulative GPA.

Applications for acceptance into the Dental Hygiene program **MUST BE received by February 1**, for admission into the program in the following fall semester.

- Prerequisite courses must be completed with a grade of "C-" or better. Courses graded on a pass/fail option will not be considered.
- Prerequisite courses may be repeated only one time, with the most recent grade used in the prerequisite GPA calculation. A maximum of two prerequisite courses may be retaken to improve the grades and GPA ranking.
- Credits in human anatomy, physiology, chemistry and microbiology must be completed within five years of admission to the professional program. Credits in English composition, speech, psychology, and sociology will be accepted for 10 years. Outdated courses must be retaken.
- Advanced Placement (AP) courses in English and psychology are acceptable, if AP scores are 4.0 or higher. No other AP courses will be accepted.
- Transfer courses accepted by IPFW as "undistributed" must be evaluated by the applicable department (i.e. chemistry or biology) before they are accepted as prerequisite courses.

- Students who are returning to IPFW, after an absence of 5 or more years, are eligible for the Academic Renewal Option. This option must be exercised during the student's first semester back at IPFW. Interested students should petition the program's admissions committee, by contacting their academic advisor.

University Preference

Priority consideration will be given to students who have completed the required pre-dental hygiene courses at IPFW or another Indiana University or Purdue University campus.

Special Academic Regulations

In addition to completion of the required pre-requisite and co-requisite courses, acceptance into the Dental Hygiene program is contingent upon an applicant's ability to meet the following additional requirements:

- Demonstrate compliance with the College of Health and Human Services Technical Standards.
- Successful completion of a specified background check at student's expense.
- Submit military discharge papers, if applicable.
- Pass a drug screening test, if applicable.
- Complete Compliance Regulations for Students in Dental Education.

Tattoos and Head and Neck Piercings

The dental profession is extremely conservative. In clinical settings, tattoos and head and neck piercings are not considered acceptable in the health science professions. If students have tattoos that are noticeable, they must be covered by clothing. If they cannot be covered by clothing, students are required to cover tattoos with bandages. For clinical attire, all head and neck piercings must be removed, including plugs.

Attendance

Because of the experiential learning process used in all dental hygiene courses, attendance is essential and mandatory. Some evening hours are required for additional clinical experiences and professional association meetings.

Compliance: Physicals, Immunizations, TB, CPR, Background Checks, and Potential Drug Screening

Before beginning a Dental Education program, students must submit evidence that they have completed a recent (the summer before the program starts) physical examination, completed recent (the summer before the program starts) TB testing, Hepatitis B immunizations and titer, and hold a current CPR certification at the professional/ healthcare-provider level with the American Heart Association or American Red Cross.

Criteria for Dismissal from the Dental Hygiene Program

A student who is dismissed from the program may appeal the decision to the Department of Dental Education. If the student is dismissed for failure to meet the university's minimum academic standards, application for readmission must follow the procedures established by the university.

Dismissal from the Dental Hygiene Program may result from professional misconduct. Students who have been accepted to the program will receive a program manual at summer orientation that must be read before they start the program.

The College of Health and Human Services Academic and Professional Misconduct Appeals Policy and forms can be found at http://www.ipfw.edu/hhs/resources/appeals.shtml

Program Requirements

After acceptance into the program, you must fulfill the requirements of IPFW (see Part 8) and Dental Education (Part 4), and satisfactorily complete the following courses:

NOTE: It is required that microbiology (BIOL 220) be completed prior to beginning the Dental Hygiene program. Microbiology taken more than five years prior to admission into the professional program must be retaken.

- BIOL 22000 - Microbiology for Allied Health Professionals Cr. 4.
- DAST A112 - Dental and Medical Emergencies and Therapeutics Cr. 2.

- DAST A300 - Special Topics in Dental Education Cr. 1-4.
- DHYG H211 - Head and Neck Anatomy Cr. 2.
- DHYG H214 - Oral Anatomy Cr. 3.
- DHYG H215 - Pharmacology and Therapeutics (lecture) Cr. 2.
- DHYG H216 - Chemistry and Nutrition- First Year Cr. 2-3.
- DHYG H217 - Preventive Dentistry Cr. 2.
- DHYG H218 - Fundamentals of Dental Hygiene (lecture and lab) Cr. 5.
- DHYG H219 - Clinical Practice I Cr. 3-4.
- DHYG H221 - Clinical Dental Hygiene Procedures Cr. 1-2.
- DHYG H301 - Clinical Practice II Cr. 4-5.
- DHYG H302 - Clinical Practice III Cr. 4-5.
- DHYG H303 - Radiology (lecture and lab) Cr. 1-2.
- DHYG H304 - Oral Pathology Cr. 2.
- DHYG H305 - Radiology Clinic I Cr. 1-2.
- DHYG H306 - Radiology Clinic II Cr. 1.
- DHYG H307 - Radiology Clinic III Cr. 1.
- DHYG H308 - Dental Materials Cr. 2-3.
- DHYG H309 - Practice of Community Dental Hygiene Cr. 2.
- DHYG H320 - Practice Management, Ethics, and Jurisprudence Cr. 1-2.
- DHYG H321 - Periodontics Cr. 1-2.
- DHYG H344 - Senior Hygiene Seminar Cr. 1-2.
- DHYG H347 - Dental Public Health Cr. 3-4.

Total Credits: 61

Dental Laboratory Technology (A.S.)

Program: A.S. in Dental Laboratory Technology
Department of Dental Education
College of Health and Human Services

Neff Hall Room 150 ~ 260-481-6837 ~ www.ipfw.edu/dental

The Associates degree in the Dental Laboratory Technology Program is accredited by the American Dental Association Commission on Dental Accreditation, 211 E Chicago Ave # 780, Chicago, IL 60611-6983, telephone (312) 440-2500, http://www.ada.org.

The student learning outcomes for the Dental Laboratory Technology degree are as follows:

Graduates of the Dental Laboratory Technology program will:

- Demonstrate the breadth of knowledge in the principals of restorative dental prosthesis and dental sciences.
- Demonstrate proficiency in the technical competency skills necessary to perform at or beyond an entry-level position in a dental laboratory.
- Comprehend and apply dental terminology, and technical advancements in the dental laboratory technology profession.

- Demonstrate ethical work habits and behavior patterns that are required for the success and advancement in the dental profession.
- Demonstrate the need for continued learning and professional development locally, nationally and internationally in the field of dental laboratory technology.
- Demonstrate the written, oral and multimedia skills necessary to communicate effectively in multicultural/diverse settings.
- Demonstrate skills in critical thinking, interpretation, reasoning, questioning, and decision making in the dental profession.
- Demonstrate proficiency in interpreting and evaluating current dental prosthetic research and apply that knowledge to demonstrate dental laboratory skills necessary for life-long learning.
- Promote the dental laboratory technology profession through service learning activities, affiliations with professional organizations, and partnerships with dental companies and the community.

The Dental Laboratory Technology program curriculum includes didactic and laboratory courses along with two prerequisite courses, two preferred admission courses, and two years of professional dental laboratory courses. Students are designated as pre-dental laboratory students prior to admission to the program. The professional curriculum is a structured, full-time program beginning each fall semester. A Dental Laboratory Technology degree prepares graduates for a career as a dental health professional in the construction of restorative dental prostheses prescribed by a dentist. Upon completion of the program, graduates are eligible to take a written Comprehensive Examination and one written Specialty Examination. After successful completion of these two written examinations, passing an additional practical examination will enable the graduate to become a certified dental technician. These examinations are offered by the National Board for Certification.

Application to the Program

Applicants must also make an appointment with a dental laboratory advisor to discuss the program and receive current information regarding admission, prerequisite requirements, and possible degree completion options. To make an appointment with your advisor, log onto the dental education website http://www.ipfw.edu/dental click on advisors and follow the instructions to find your academic advisor.

In order to apply to the Dental Laboratory Technology Program a student must:

- Admission to IPFW does not confer admission to the program. To be admitted to the dental laboratory technology program prospective students must apply separately to both IPFW and the dental laboratory technology program.

- Prospective dental laboratory technology students must complete IPFW prerequisite courses listed below or equivalent courses at another accredited college or university. These courses may not be graded on a pass/not-pass option. A minimum prerequisite GPA of 2.0 on a 4.0 scale and a minimum cumulative GPA of 2.0 on a 4.0 scale is required for all applicants.

- The dental laboratory technology program is limited to 20 students per academic year with a new class beginning each fall semester. The separate application required for admission to the dental laboratory technology program is obtained by contacting the Department of Dental Education. The application for entry to the dental laboratory program must be received no later than June 15 of the year an applicant wishes to enter the program. The number of eligible applicants each year exceeds the number of spaces available.

Class Selection Process

Acceptance into the Dental Laboratory Technology Program is based on the following:

- Applicants must have a minimum IPFW grade-point average (GPA) of 2.0 on a 4.0 scale in the 6 hours of pre-dental laboratory curriculum along with a minimum cumulative GPA of 2.0 on a 4.0 scale. The GPA is calculated on only the 6 hours of pre-dental laboratory technology curriculum taken at IPFW or at other

Purdue University or Indiana University campuses. Applicants are ranked based on this GPA. A minimum GPA does not guarantee admission. The actual GPA necessary for admission varies with the GPA distribution of the applicant pool.

- All transfer grades will be reviewed and evaluated in the admission process. Remedial or developmental courses (ENG R150, R151, R152, P131, W130, or MA 109) cannot be used to fulfill these prerequisite requirements.

- First-priority consideration for program admission will be given to students who have completed all 6 hours of pre-dental laboratory technology curriculum at IPFW or at other Purdue University or Indiana University campuses. Students who complete some of their prerequisite courses at IPFW, Indiana University, or Purdue University and other colleges/universities will be considered second for entrance into the program. Students who complete all their prerequisite courses at other colleges/universities that are not IPFW, Indiana University, or Purdue University courses will be considered third for entrance into the program.

- Should a tie in applicants' GPAs occur, rank ordering will be based upon the applicants' cumulative GPA.

- Applicants must return the acceptance form by the deadline stated in the acceptance letter.

- Demonstrate meeting the College of Health and Human Services Technical Standards.

- Students must submit evidence that they have completed the following before classes begin fall semester:

  o a recent physical examination (the summer before the program begins)

  o a recent TB testing (the summer before the program begins)

  o received the three Hepatitis B immunizations (before the program begins) and a Hepatitis B titer (blood test)

  o submitted proof of payment for their Purdue Professional Liability Insurance coverage. Purdue professional liability insurance is not valid unless it has been paid.

  o complete a criminal background check. Students will receive online instructions at orientation.

- Applicants who have served in the military must submit military discharge papers.

- Students in the professional dental programs must pass a drug screening test, if requested.

Admission Policies

Reapplying. Students who have not been accepted, but who are qualified, may reapply for admission. Students who decline admission two times will no longer be considered.

Repeat Attempts. A student may make two graded attempts at a prerequisite course, with the most recent grade calculated in the prerequisite GPA. The student's two attempts will include any graded attempt, whether or not eliminated from the student's GPA by grade replacement.

Academic Renewal. Students who are returning to IPFW after five years or more are eligible for the Academic Renewal Option. The Academic Renewal Option must be exercised during a student's first semester back at IPFW, regardless of when the student applies for admission to the Dental Laboratory Technology Program. The Program's admission committee will recognize IPFW's Academic Renewal Option when reviewing an applicant for admission.

Special Academic Regulations for Students in the Department of Dental Education

Tattoos and Head and Neck Piercings

The dental profession is extremely conservative. Tattoos and head and neck piercings are not acceptable in the health science professions. If students have tattoos that are noticeable, they must be covered by clothing. If they cannot be covered by clothing, students are required to cover tattoos with bandages. All head and neck piercings must be removed.

Attendance

Because of the experiential learning process used in all dental laboratory courses, attendance is essential and mandatory. Some evening hours are required and professional association meetings.

Criteria for Dismissal from the Dental Laboratory Technology Program

- A student who is dismissed from the program may appeal the decision to the Department of Dental Education. If the student is dismissed for failure to meet the university's minimum academic standards, application for readmission must follow the procedures established by the university.

- Dismissal from the Dental Laboratory Program may result from professional misconduct. Students who have been accepted to the program will receive a program manual at summer orientation that must be read before they start the program.

- The College of Health and Human Services Academic and Professional Misconduct Appeals Policy and forms can be found at http://www.ipfw.edu/hhs/resources/appeals.shtml

Prerequisite Courses

To apply for the dental laboratory technology program, prerequisite courses must be completed by July 1st with a grade of C- or better in each prerequisite course. Prerequisite courses may be repeated one time. The most recent grade will be used in prerequisite GPA calculation.

- COM 114
- ENG W131

Preferred Admission Courses

(with a grade of C- or better)

For preferred admission, the following courses must be completed by July 1.

- BUS W100
- STAT 125

IPFW General Education Requirements (12 credits)

- BUS W100 - Principles of Business Administration Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.

One of the following: Credits 3

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- COM 21200 - Approaches to the Study of Interpersonal Communication Cr. 3.

One of the following: Credits: 3

- MA 14900 - Basic and College Algebra Cr. 5.
- MA 15300 - Algebra and Trigonometry I Cr. 3.
- STAT 12500 - Communicating with Statistics Cr. 3.

Dental Laboratory Technology Program Requirements (60 credits)

To earn an A.S. in dental laboratory technology, you must fulfill the requirements of IPFW (see Part 8) and the Department of Dental Education, and satisfactorily complete the following courses:
- DLTP D111 - History, Ethics, Organization Cr. 1.
- DLTP D112 - Dental Anatomy Cr. 4.
- DLTP D113 - Basic Physics, Chemistry, and Dental Materials Cr. 5.
- DLTP D114 - Occlusion Cr. 3.
- DLTP D125 - Crown and Bridge Prosthodontics I Cr. 3.
- DLTP D126 - Orthodontics/ Pedodontics Appliances I Cr. 3.
- DLTP D127 - Complete Denture Prosthodontics I Cr. 4.
- DLTP D128 - Partial Denture Prosthodontics I Cr. 3.
- DLTP D129 - Dental Ceramics I Cr. 3.
- DLTP D215 - Crown and Bridge Prosthodontics II Cr. 4.
- DLTP D216 - Orthodontics/ Pedodontics Appliances II Cr. 3.
- DLTP D217 - Complete Denture Prosthodontics II Cr. 3.
- DLTP D218 - Partial Denture Prosthodontics II Cr. 3.
- DLTP D219 - Dental Ceramics II Cr. 4.
- DLTP D222 - Practical Laboratory Experience Cr. 4-6.

Credits from among two of the following: Credits: 8

- DLTP D225 - Specialty in Crown and Bridge Prosthodontics Cr. 4.
- DLTP D226 - Specialty in Orthodontics/ Pedodontics Cr. 4.
- DLTP D227 - Specialty in Complete Denture Prosthodontics Cr. 4.
- DLTP D228 - Specialty in Partial Denture Prosthodontics Cr. 4.
- DLTP D229 - Specialty in Dental Ceramics Cr. 4.

Total Credits: 72

Early Childhood Education (A.S.)

Program: A.S.
Department of Educational Studies
School of Education

Neff Hall 250 ~ 260-481-6441 ~ www.ipfw.edu/educ

The student learning outcomes for the degree are as follows:

- Becoming more caring, humane and functional citizens in a global, multicultural, democratic society
- Improving the human condition by creating positive learning environments
- Becoming change agents by demonstrating reflective professional practice
- Solving client problems through clear, creative analyses
- Assessing client performance, creating and executing effective teaching, counseling, and educational leadership by utilizing a variety of methodologies reflecting current related research
- Utilizing interdisciplinary scholarship, demonstrating technology and critical literacies, and effectively communicating with all stakeholders.

The A.S. in early childhood education program provides preparation for workers in nursery schools, Headstart programs, and preschool programs. It does not qualify you for teacher licensure. However, most of the courses can be applied toward a bachelor's degree in elementary education which does lead to teacher licensure.

To earn the A.S. in early childhood education, you must fulfill the requirements of IPFW (see Part 8) and the School of Education.

This program is open only to new transfer students and to students admitted to IPFW prior to fall 2010.

IPFW General Education Requirements Credits: 30

- CSD 11500 - Introduction to Communicative Disorders Cr. 3.
- COM 11400 - Fundamentals of Speech Communication Cr. 3.
  (a grade of B or better is required)
- EDUA F300 - Topical Exploration in Education Cr. 1-3.
  Credits: 2
- EDUC H340 - Education and American Culture Cr. 2-3.
  (corequisite with EDUC E317) Credits: 3.
- EDUC K201 - Schools, Society, and Exceptionality Cr. 1-3.
  Credits: 1
- EDUC M101 - Laboratory/Field Experience Cr. 0-3.
  (corequisite with EDUC W200) Credits: 0.
- EDUC Q200 - Introduction to Scientific Inquiry Cr. 1-3.
  Credits: 1
- EDUC W200 - Using Computers for Education Cr. 1.
  (a grade of B or better is required)
- ENG W131 - Elementary Composition I Cr. 3.
  (a grade of B or better is required)
- MA 10100 - Mathematics for Elementary Teachers I Cr. 3.
- MUS Z241 - Introduction to Music Fundamentals Cr. 2.

One of the following: Credits: 3

- PSY 12000 - Elementary Psychology Cr. 3.
- SOC S161 - Principles of Sociology Cr. 3.

One of the following Credits:3

- ENG L101 - Western World Masterpieces I: Ancient to Renaissance Cr. 3.
- ENG L102 - Western World Masterpieces II: Renaissance to Modern Cr. 3.

Professional Courses Credits: 34

(a grade of B or better is required in all Professional Courses)

- EDUC E317 - Practicum in Early Childhood Education Cr. 4.
  (corequisite with EDUC H340)
- EDUC E330 - Infant Learning Environments Cr. 3.
- EDUC E333 - Inquiry in Mathematics and Science Cr. 3.
  (pre- or corequisite EDUC P249)
- EDUC E335 - Introduction to Early Childhood Education Cr. 3.
- EDUC E336 - Play as Development Cr. 3.
  (pre- or corequisite EDUC P249)
- EDUC E337 - Classroom Learning Environments Cr. 3.
  (pre- or corequisite EDUC P249)
- EDUC E338 - The Early Childhood Educator Cr. 3.
- EDUC E346 - Discipline/Parenting for Young Children Cr. 3.
- EDUC E347 - Language Arts for Early Childhood Cr. 3.
- EDUC K206 - Teaching Methods for Students with Special Needs Cr. 1-3.
  Credits: 3
- EDUC M101 - Laboratory/Field Experience Cr. 0-3.
  (corequisite with EDUC P249, EDUC E330, EDUC E337) Credits: 0.
- EDUC P249 - Growth and Development in Early Childhood Cr. 3.

Total Credits: 64

Electrical Engineering Technology (A.S.)

Program: A.S.
Department of Computer and Electrical Engineering Technology & Information Systems and Technology
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 205 ~ 260-481-6338 ~ www.ceit.ipfw.edu

The student learning outcomes for the degree are:

Graduates will have:

- An appropriate mastery of the knowledge, techniques, skills and modern tools of electrical engineering technology.
- An ability to apply current knowledge and adapt to emerging applications of mathematics, science, engineering and technology.
- An ability to conduct, analyze and interpret experiments and apply experimental results to improve processes.
- An ability to apply creativity in the design of systems, components or processes appropriate to program objectives.
- An ability to function effectively on teams.
- An ability to identify, analyze and solve technical problems.
- An ability to communicate effectively in writing, and in oral presentation.

- A recognition of the need for, and an ability to engage in lifelong learning.
- An ability to understand professional, ethical and social responsibilities.
- The knowledge of and respect for diverse backgrounds and contemporary societal and global issues concerning the profession.
- A commitment to quality, timeliness, and continuous improvement.

The two-year A.S. EET program is a combination of courses in electricity, electronics, computers, mathematics, science, and general academic areas. The program helps students prepare for employment as electrical/electronic or computer technicians,and provides knowledge in fields such as computer electronics, local area networking, industrial electronics, communication electronics, military electronics, automation, electronics servicing, and electrical power.

The CEIT department also offers the Bachelor of Science with a major in electrical engineering technology, a Bachelor of Science with a major in computer engineering technology (CPET) and an Associate and Bachelor of Science with a major in information systems. In addition to the degrees, the department offers a minor in electronics, and minor in information systems and certificate programs in computer-controlled systems, electronic communications, power electronics systems, and computer networking.

To earn the A.S., you must fulfill the requirements of IPFW (see Part 8) and complete the following courses:

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations Credits: 9

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
  ENG W131 Grade C or above required.
- MA 15300 - Algebra and Trigonometry I Cr. 3.

Area II—Natural and Physical Sciences Credits: 4

- PHYS 21800 - General Physics Cr. 4.

Area IV—Humanistic Thought Credits: 3

See Part 2 General Education Requirements for approved courses

Core and Concentration (Major) Courses Credits: 40

- ECET 10200 - Electrical Circuits I Cr. 4.
- ECET 11100 - Digital Circuits Cr. 4.
- ECET 11400 - Introduction to Visual Basic Cr. 3.
- ECET 14600 - Digital Circuits II Cr. 3.
- ECET 15200 - Electrical Circuits II Cr. 4.
- ECET 20400 - Analog Electronics II Cr. 4.
- ECET 20500 - Introduction to Microprocessors Cr. 4.
- ECET 23100 - Electrical Power and Controls Cr. 4.
- ECET 26400 - C Programming Language Applications Cr. 3.
- ECET 29600 - Electronic System Fabrication Cr. 2-3.
- ECET 30200 - Introduction to Control Systems Cr. 4.

or
- ECET 30300 - Communications I Cr. 4.

Required non-ECET technical course Credits: 3

- CPET 19000 - Problem Solving with MATLAB Cr. 1-4.

Required Math Courses Credits: 10

- MA 15400 - Algebra and Trigonometry II Cr. 3.
- MA 22700 - Calculus for Technology I Cr. 4.
- MA 22800 - Calculus for Technology II Cr. 3.
  For A.S. can substitute CHM 111 or STAT 301 for MA 228

Total Credits: 69

English Concentration (A.A.)

Program: Concentration A.A.
Department of English and Linguistics

Liberal Arts Building 145 ~ 260-481-6841 ~ www.ipfw.edu/engl

The student learning outcomes for the degree are as follows:

- Students demonstrate the acquisition of a basic knowledge of language, writing, and British and American literature necessary for pursuit of a baccalaureate degree in English.
- Students demonstrate the ability to apply basic critical thinking skills to the analysis of a variety of texts.
- Students display the ability to communicate a basic understanding of English literature with rhetorical precision, clarity, and critical awareness.

The college's Associate of Arts program serves as an intermediate step toward completion of a baccalaureate degree. The requirements encompass approximately the first half of the bachelor's degree program offered by the sponsoring department. See Part 5 for complete requirements for related bachelor's degree.

Requirements for the Associate of Arts

IPFW General Education Requirements

Area I—Linquistic and Numerical Foundations Credits: 9

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
  (with a grade of C or higher)
- Quantitative Reasoning course with a grade of C or higher (except MA 10100)

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

One science course with a scheduled laboratory required.

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Credits in the first year of a foreign language Credits: 8

Credits in a concentration with a grade of C or higher in each course (see below) Credits: 15-21

Additional credits in approved elective courses Credits: 4-12

Total credits with a graduation GPA of at least 2.00: 60-63

Program Requirements

In addition to the courses listed below, you must complete MA 15300 or 16800 or STAT 12500 for your IPFW General Education course in Quantitative Reasoning. If you plan to continue for a bachelor's degree with a major in English (see Part 5), you should take the second year foreign-language courses as electives for the A.A.

- Credits in American literature Credits: 3
- Credits in British literature before 1700 Credits: 3
- Credits in British literature after 1700 Credits: 3
- Credits in language study Credits: 3
- Credits in ENG W203 or a 300-400–level English writing course Credits: 3
- ENG L202 - Literary Interpretation Cr. 3.

French Concentration (A.A.)

Program: Concentration A.A.
Department of International Language and Culture Studies
College of Arts and Sciences

Liberal Arts Building 267 ~ 260-481-6836 ~ www.ipfw.edu/ilcs

 The student learning outcomes for the degree are as follows:

- Acquire a basic foundation in language skills and a solid basis for further study in the language;
- Demonstrate the ability to examine stereotypes and to respond in culturally appropriate ways in everyday situations in the target culture;
- Develop an increased understanding of what it means to belong to a culture and awareness of how culture affects other interconnected issues of identity.

The college's Associate of Arts program serves as an intermediate step toward completion of a baccalaureate degree. The requirements encompass approximately the first half of the bachelor's degree program offered by the sponsoring department. See Part 5 for complete requirements for related bachelor's degree.

Requirements for the Associate of Arts

IPFW General Education Requirements

Area I—Linquistic and Numerical Foundations Credits: 9

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
  (with a grade of C or higher)
- MA 15300 - Algebra and Trigonometry I Cr. 3.
  Or
- MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
  Or
- STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

One Science course with a scheduled laboratory required.

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

Concentration Requirements

If you plan to continue for a bachelor's degree with a major in French, see Part 5 for B.A. requirements.

A grade of C or higher required in all concentration courses.

- FREN F203 - Second-Year French I Cr. 3.

- FREN F204 - Second-Year French II Cr. 3.
- FREN F317 - French Language Skills I Cr. 3.
- FREN F318 - French Language Skills II Cr. 3.

One of following Credits: 3

- FREN F326 - French in the Business World Cr. 3.
- FREN F330 - Introduction to Translating French and English Cr. 3.

Credits in the first year of a foreign language Credits: 8

Additional credits in approved elective courses Credits: 4-12

Total credits with a graduation GPA of at least 2.00: 60-63

General Studies (A.A.G.S.)

Program: A.A.G.S.
Division of Continuing Studies

Kettler Hall 144 ~ 260-481-6828 ~ www.ipfw.edu/dcs/gsdp

The student learning outcomes for the degree are as follows:

- Speak and write precisely, clearly and persuasively.
- Understand the nature and diversity of individuals, organizations, cultures, and societies.
- Apply their knowledge in written, oral communication, or technical competencies.
- Apply the knowledge gained across interdisciplinary boundaries.

General Studies offers a wide variety of personalized degree options to the traditional and nontraditional student. Students may individually tailor their program to combine a substantial core of courses basic to a traditional university education and study in career-related areas. Within the flexible framework of degree requirements, students may design an undergraduate program that can more readily meet their career and personal-development goals than can a traditional major. Students will be encouraged and assisted in developing a unique academic program complementing their individual interests, abilities, and intellectual and practical concerns.

In addition to taking advantage of the wide variety of daytime, evening, and weekend classes at IPFW, students may choose to earn credit toward their degree through correspondence study. Students may also earn credit by examination, and in some cases earn credit for significant, documentable self-acquired competencies when the learning outcomes have been comparable to those of university-level work. Consideration is given to all previously earned college credit from other accredited institutions. The Associate of Arts in General Studies and Bachelor of General Studies programs may also be tailored to the needs of those unable to study on campus during regularly scheduled periods. Both degrees may be completed online.

Both programs include courses in broad categories called required areas of learning (listed below) and elective credit that students may earn in any IPFW program. The required areas of learning provide broad exposure to the humanities, social sciences, and sciences, while the electives permit students to explore areas of interest, receive credit for prior university-level experiential learning, and tailor the degree to their individual needs. In each plan of study, students must demonstrate competency in each of the following areas: written communication (two courses), oral communication, mathematics, computer literacy, and a diversity course.

After students are admitted to a general studies degree program, students will develop a plan of study to meet their objectives. An advisor will provide assistance in this effort. For further information, refer to the current Indiana University School of Continuing Studies *General Studies Degree Bulletin*.

To earn an A.A.G.S., students must complete the following requirements:

IPFW General Education Requirements

Area I- Linguistic and Numerical Foundations

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
- STAT 12500 - Communicating with Statistics Cr. 3.

Required Areas of Learning

General studies is a university-wide degree program, certified through Indiana University's School of Continuing Studies. The program follows the same curriculum requirements throughout Indiana University.

Arts and Humanities Credits: 6

(depending upon course selection for general education)

Afro-American Studies	Foreign Language
Classical Studies	History
Communication	Journalism
Comparative Literature	Music
English (except R150 and W130)	Philosophy
Film	Religion
Fine Arts	Theatre
Folklore	Visual Communication and Design

Science and Mathematics Credits: 9

(depending upon course selection for general education)

- ANTH B200 and E445 (only)
- Astronomy
- Biology
- Chemistry
- Computer Science (includes BUS K211, K212, K213, K214, K215, and K216)

- ECON E270 (only)
- Entomology
- *ETCS 106
- Forestry and Natural Resources
- GEOG G107, G109, G315 (only)
- Geology
- Horticulture
- Mathematics (except 109, 111, and 113)
- Physics
- PSY 120, 201, 310, 314, 329, and 416 (only)
- SOC S351 (only)
- SPEA K300 (only)
- Statistics

*required course

Social and Behavior Sciences Credits: 12

(depending upon course selection for general education)

- Anthropology
- Economics
- Geography
- Linguistics
- Political Science
- Psychology
- Sociology
- SPEA J101 (only)
- WOST W210 (only)

12 credits in each required area of learning, including courses from at least two departments in each area

General Elective Courses Credits: 24

In consultation with an advisor, you are urged to concentrate electives in related areas.

Note

Students must complete at least 10 of the above credits after admission to the program. No more than 15 credits can be in any one subject. No more than 15 credits toward the AAGS may be awarded for successful completion of external exams such as CLEP. At least 15 credits must be taken within the IU system or as a Purdue student at IPFW.

Total Credits: 60

German Concentration (A.A.)

Program: Concentration A.A.
Department of International Language and Culture Studies
College of Arts and Sciences

Liberal Arts Building 267 ~ 260-481-6836 ~ www.ipfw.edu/ilcs/

 The student learning outcomes for the degree are as follows:

- Acquire a basic foundation in language skills and a solid basis for further study in the language;
- Demonstrate the ability to examine stereotypes and to respond in culturally appropriate ways in everyday situations in the target culture;
- Develop an increased understanding of what it means to belong to a culture and awareness of how culture affects other interconnected issues of identity.

The college's Associate of Arts program serves as an intermediate step toward completion of a baccalaureate degree. The requirements encompass approximately the first half of the bachelor's degree program offered by the sponsoring department. See Part 5 for complete requirements for related bachelor's degree.

Requirements for the Associate of Arts

IPFW General Education Requirements

Area I - Linquistic and Numerical Foundations

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
  (with a grade of C or higher)
  Quantitative Reasoning course, with a grade of C or higher:
- MA 15300 - Algebra and Trigonometry I Cr. 3.
  Or
- MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
  Or
- STAT 12500 - Communicating with Statistics Cr. 3.

Area II-Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III-The Individual, Culture, and Society Credits: 6

Recommended as a selection:
- ANTH L200 - Language and Culture Cr. 3.
- LING L103 - Introduction to the Study of Language Cr. 3.

Area IV—Humanistic Thought Credits: 6

Program Requirements

If you plan to continue for a bachelor's degree with a major in German, see Part 5 for B.A. requirements.

- GER G203 - Second-Year German I Cr. 3.
- GER G204 - Second-Year German II Cr. 3.
- GER G318 - German Language Skills I Cr. 3-5.
  Credits: 3

One of following Credits: 3

- GER G315 - Business German Cr. 3.
- GER G319 - German Language Skills II Cr. 3.

One of following Credits: 3

- GER G362 - Introduction to Contemporary Germany Cr. 3.
- GER G363 - Deutsche Kulturgeschichte Cr. 3.

Credits in the first year of a foreign language Credits: 8

Additional credits in approved elective courses Credits: 4-12

Credits in a concentration with a grade of C or higher in each course (see below) Credits: 15-21

Total credits with a graduation GPA of at least 2.00: 60-63

History Concentration (A.A.)

Program: Concentration A.A.
Department of History
College of Arts and Sciences

Liberal Arts Building 209 ~ 260-481-6686 ~ www.ipfw.edu/hist

The student learning outcomes for the degree are as follows:

- Have a basic introductory knowledge of the history of the United States, Europe, and other world areas;
- Have a basic understanding of history as a method of intellectual investigation;
- Have an appreciation for the relationship of the past to the culture and society of today; and
- Have a foundation for making a decision to continue toward the B.A. in history.

If you plan to continue for a bachelor's degree with a major in history, see Part 5 for B.A. requirements.

Requirements for the Associate of Arts

IPFW General Education Requirements

Area I - Linquistic and Numerical Foundations Credits: 9

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
  with a grade of C or higher
- MA 15300 - Algebra and Trigonometry I Cr. 3.
  Or
- MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
  Or
- STAT 12500 - Communicating with Statistics Cr. 3.

Area II-Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

One Science course with a scheduled laboratory required.

Area III—The Individual, Culture, and Society Credits: 6

Area IV-Humanistic Thought Credits: 6

Program Requirements

- HIST H105 - American History I Cr. 3.
- HIST H106 - American History II Cr. 3.
- HIST H113 - History of Western Civilization I Cr. 3.
- HIST H114 - History of Western Civilization II Cr. 3.
- Credits in upper-level American history Cr. 3.
- Credits in upper-level European history Cr. 3.
- Credits in upper-level Other World history Cr. 3.

Credits in a concentration with a grade of C or higher in each course (see below) Credits: 15-21

Credits in the first year of a foreign language Credits: 8

Additional credits in approved elective courses Credits: 4-12

Total credits with a graduation GPA of at least 2.00: 60-63

Industrial Engineering Technology (A.S.)

Program: A.S
Department of Manufacturing & Construction Engineering Technology and Interior Design
Technology College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 221 ~ 260-481-4127 ~ www.mcet.ipfw.edu

The student learning outcomes for the degree are as follows:

- an appropriate mastery of the knowledge, techniques, skills and modern tools of the appropriate ET program.
    - Technical expertise in quality, metrology, advanced SPC, SQC, TQM, ISO standards, and design of experiments.
    - Technical expertise in ergonomics, work methods design, optimization, engineering economy, and cost estimating.
    - Technical expertise in facilities layout, production planning and control, queuing theory, modeling, and simulation.
    - Technical expertise in CAD, engineering graphics, GC&T, gage capability studies, and measurement uncertainty.
    - Technical expertise in materials, manufacturing processes, design for manufacturing and assembly, and CNC machining.
- An ability to apply current knowledge and adapt to emerging applications of mathematics, science, engineering and technology.
- An ability to conduct, analyze and interpret experiments and apply experimental results to improve processes.
- An ability to apply creativity in the design of systems, components or processes.
- An ability to function effectively on teams.
- An ability to identify, analyze and solve technical problems.
- An ability to communicate effectively.
- A recognition of the need for, and an ability to engage in lifelong learning.
- An ability to understand professional, ethical and social responsibilities.
- A knowledge of and respect for diversity, contemporary societal and global issues related to the profession.
- A commitment to quality, timeliness, and continuous improvement.

This program prepares graduates with knowledge, technical, analytical, and managerial skills necessary to develop, implement, and improve integrated systems in manufacturing and service industries that include people, materials, equipment, information, and energy. Graduates will be prepared for careers in higher levels of system design, integration, and management. To earn the B.S. with a major in industrial engineering technology, you must fulfill the requirements of IPFW (see Part 8), the College of Engineering, Technology, and Computer Science (see Part 4), and of the A.S., and complete the following credits, earning a grade of C or better in those courses that serve as prerequisites:

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

Grade of C or better required for the following courses.

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
- MA 15900 - Precalculus Cr. 5.

Area II—Natural and Physical Sciences

- PHYS 21800 - General Physics Cr. 4.
  Grade of C or better required
- PHYS 21900 - General Physics II Cr. 4.

Area III—The Individual, Culture, and Society

- IET 10500 - Industrial Management Cr. 3.
  Grade of C or better required
- PSY 12000 - Elementary Psychology Cr. 3.

Core and Concentration (Major) Courses

- ETCS 10100 - Introduction to Engineering, Technology, and Computer Science Cr. 1.
- IET 20004 - Techniques of Maintaining Quality Cr. 3.
  Grade of C or better required
- IET 22400 - Production Planning and Control Cr. 3.
- IET 25700 - Ergonomics Cr. 3.
- IET 26700 - Work Methods Design Cr. 3.
  Grade of C or better required
- IET 31000 - Plant Layout and Material Handling Cr. 3.
  Grade of C or better required
- MET 10400 - Technical Graphics Communications Cr. 3.
  Grade of C or better required
- MET 10600 - Analytical and Computational Tools in MET Cr. 2.
  Grade of C or better required
- MET 18000 - Materials and Processes Cr. 3.
  Grade of C or better required
- MET 22300 - Introduction to Computer- Aided Modeling and Design Cr. 3.
  Grade of C or better required
- MET 33500 - Basic Machining Cr. 3.
  Grade of C or better required

Additional Required Technical Courses

Grade of C or better required for the following courses.

- ECET 26400 - C Programming Language Applications Cr. 3.
- STAT 30100 - Elementary Statistical Methods I Cr. 3.

Required Support Courses

Grade of C or better required for the following course.

- ENG W234 - Technical Report Writing Cr. 3.

Total Credits: 64

Information Systems (A.S.)

Program: A.S.
Department of Computer and Electrical Engineering Technology & Information Systems and Technology
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 205 ~ 260-481-6338 ~ www.ceit.ipfw.edu

The student learning outcomes for the degree are as follows:

- An ability to apply knowledge of computing and mathematics appropriate to the discipline.
- An ability to analyze a problem and identify and define the computing appropriate to the discipline.
- An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs.
- An ability to function effectively on teams to accomplish a common goal.
- An understanding of professional, ethical, legal, security and social issues and responsibilities.
- An ability to communicate effectively with a range of audiences.
- An ability to analyze the local and global impact of computing on individuals, organizations, and society.
- Recognition of the need for and an ability to engage in continuing professional development.
- An ability to use current techniques, skills, and tools necessary for computing practice.
- An understanding of processes that support the delivery and management of information systems within a specific application environment.

This program is focused on fundamental computing courses. All requirements may be applied to the B.S. program in information systems. Graduates of the A.S. program typically continue in the B.S. program, although they are qualified for employment opportunities in the computer field.

To earn the A.S. with a major in information systems, you must fulfill the requirements of IPFW (see Part 8) and complete the following courses. Only courses in your major field in which you have earned a grade of C or better can be applied to the degree or used to satisfy prerequisites. A maximum of 10 credits of D grades will be accepted in other courses.

IPFW General Education Requirements Credits:18

Area I—Linguistic and Numerical Foundations Credits: 6

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
  (or equivalent)

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society Credits: 3

- OLS 25200 - Human Relations in Organizations Cr. 3.

Area IV—Humanistic Thought Credits: 3

See Part 2 General Education Requirements for approved courses

Core Requirements Credits: 19

- IST 14000 - Introduction to Visual Basic Applications Cr. 3.
- IST 16000 - Foundation and Role of Information Systems Cr. 3.
- IST 20300 - Advanced Visual Basic Cr. 3.
- IST 26000 - Enterprise Architecture Cr. 3.
- IST 27000 - Data and Information Management Cr. 3.
- CS 16000 - Introduction to Computer Science I Cr. 4.

Supporting Courses Credits: 18

- BUS A201 - Principles of Financial Accounting Cr. 3.
- ENG W234 - Technical Report Writing Cr. 3.
- MA 17500 - Introductory Discrete Mathematics Cr. 3.

One of the following Credits: 3

- BUS W100 - Principles of Business Administration Cr. 3.
- IET 10500 - Industrial Management Cr. 3.

One of the following Credits: 3

- ECON E200 - Fundamentals of Economics Cr. 3.
- ECON E201 - Introduction to Microeconomics Cr. 3.

One of the following Credits: 3

- MA 15300 - Algebra and Trigonometry I Cr. 3.
- MA 15900 - Precalculus Cr. 5.

Approved Elective Credits: 6

Total Credits: 61

Interior Design (A.S.)

Program: A.S.
Department of Manufacturing & Construction Engineering Technology and Interior Design
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 221 ~260-481-4127 ~ www.mcet.ipfw.edu

The student learning outcomes for the degree are as follows:

- Students are able to advance their learning.
    - Be able to interact with multiple disciplines.
    - Have opportunities for design work experience.
- Students have the attitudes, traits, and values of professional responsibility, accountability, and effectiveness.
    - Have critical, analytical, and strategic thinking abilities.
    - Be able to have creative thinking (exhibit a variety of ideas, approaches, concepts with originality and elaboration).
    - Have the ability to think visually and volumetrically.
    - Have active listening skills leading to effective interpretation of requirement.
- Students have a foundation in the fundamentals of art and design; theories of design, green design, and human behavior; and discipline-related history.
    - Understanding design elements (for example, space, line, mass, shape, texture) and principles (for example, scale, proportion, balance, rhythm, emphasis, harmony, variety).
    - Understanding color principles, theories, and systems (for example, additive and subtractive color; color-mixing; hue, value, and intensity; the relationship of light and color).
    - Understanding theories of design and design composition.
    - Understanding principles of lighting design (for example, color, quality, sources, use).
    - Understanding of the history of architecture and finishes.
- Students understand and apply the knowledge, skills, process, and theories of interior design.
    - Apply 2-dimensional design elements and principles in interior design projects.
    - Select and apply color in interior design projects.
    - Have competent schematic design, concept development, and problem solving skills.
- Students communicate effectively.
    - Be competent in drafting with computer-aided techniques.
    - Be competent in digital 3D modeling.
    - Be competent in illustrative sketching.
    - Be competent in presentation of color, materials, and furnishings (for example, sample boards, collages, mock-ups, digital representations).
    - Be able to express ideas clearly in oral presentations and critiques.
    - Be able to render by any medium, manual or computer-generated, that successfully communicates the design intent.
    - Be able to communicate 3-dimensional space and form, such as in perspectives and models (computer-generated or manual).

The associate degree in interior design prepares you for employment as an interior design assistant, residential designer, kitchen design consultant, lighting and color consultant, drafts person, CAD operator, or product representative. You are prepared for these responsibilities through a blend of technical and practical design courses. The program is enhanced by overseas travel and study opportunities. Graduates will be prepared for immediate employment and continuation in the B.S. program.

To earn the A.S. with a major in interior design, you must satisfy the requirements of IPFW (see Part 8) and the

College of Engineering, Technology, and Computer Science (see Part 4); earn a grade of C or better in ENG W131 and each required INTR course; and complete the requirements listed below:

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations Credits: 12

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
- MA 15300 - Algebra and Trigonometry I Cr. 3.
- MA 15400 - Algebra and Trigonometry II Cr. 3.

Area II—Natural and Physical Sciences Credits: 3

- PHYS 12500 - Light and Color Cr. 3.

Area III—The Individual, Culture, and Society Credits: 3

- OLS 25200 - Human Relations in Organizations Cr. 3.

Area IV—Humanistic Thought Credits: 3

- INTR 22000 - Architecture and Urban Form Cr. 3.

Core and Concentration (Major) Courses Credits: 44

- ARET 12300 - Construction Graphic Communication Cr. 3.
- ARET 12400 - Architectural Engineering Construction I Cr. 3.
- ARET 16700 - Construction Systems and Materials Cr. 3.
- ARET 28100 - Environmental Equipment for Buildings I Cr. 3.
- CNET 27600 - Specs, Contracts, and Codes Cr. 3.
- CNET 28000 - Quantity Estimating Cr. 3.
- INTR 11100 - Introduction to Interior Design Cr. 3.
- INTR 11200 - Residential Interior Design II Cr. 3.
- INTR 12100 - Freehand Sketching Cr. 3.
- INTR 12300 - Perspective Drawing Cr. 3.
- INTR 13100 - Decorative Materials and Accessories I Cr. 3.
- INTR 20100 - CAD for Interior Design Cr. 3.
- INTR 20600 - Portfolio and Professional Presentation Cr. 1
- INTR 24100 - Lighting and Color Design Cr. 3.
- VCD F102 - Color Design Cr. 3.

Total Credits: 65

Labor Studies (A.S.)

Division of Labor Studies
Program Offered: A.S.L.S.

Kettler Hall G28 ~ 260-481-6831 ~ www.labor.iu.edu

The student learning outcomes for the degree are not available for this degree, contact the program office.

To earn the Associate of Science in Labor Studies, you must fulfill the requirements of IPFW (see Part 8) and successfully complete the following courses:

Program Requirements

Credits from the Labor Studies Core Credits: 15

Credits from the following: 15

- LSTU L100 - Survey of Unions and Collective Bargaining Cr. 3.
- LSTU L101 - American Labor History Cr. 3.
- LSTU L110 - Introduction to Labor Studies: Labor and Society Cr. 3.
- LSTU L190 - The Labor Studies Degree Cr. 1.
- LSTU L200 - Survey of Employment Law Cr. 3.
- LSTU L201 - Labor Law Cr. 3.
- LSTU L203 - Labor and the Political System Cr. 3.
- LSTU L205 - Contemporary Labor Problems Cr. 3.
- LSTU L210 - Workplace Discrimination and Fair Employment Cr. 3.
- LSTU L220 - Grievance Representation Cr. 3.
- LSTU L230 - Labor and the Economy Cr. 3.
- LSTU L240 - Occupational Health and Safety Cr. 3.
- LSTU L250 - Collective Bargaining Cr. 3.
- LSTU L251 - Collective Bargaining Laboratory Cr. 1-3.
- LSTU L255 - Unions in State and Local Government Cr. 3.
- LSTU L260 - Leadership and Representation Cr. 3.
- LSTU L270 - Union Government and Organization Cr. 3.
- LSTU L280 - Union Organizing Cr. 3.

Required Areas of Learning for Labor Studies

Arts and Humanities

- Afro-American Studies
- Classical Studies
- Communication
- Comparative Literature
- English (except R150 and W130)
- Folklore
- Foreign Language

- History
- Journalism
- Music
- Philosophy
- Theatre
- Visual Arts

Sciences and Mathematics

- Anthropology (B200 and E445 only)
- Astronomy
- Biology
- Chemistry (except 100)
- Computer Science (includes BUS K200, K211, K212, K213, K214, K215, K216)
- Economics (E270 only)
- Entomology
- Forestry and Natural Resources
- Geography (G107 and G304 only)
- Geology
- Horticulture
- Mathematics (except 101, 102, 103, 109, 111, and 113)
- Physics
- Psychology (120, 201, 314, 333, 329, and 416 only)
- Sociology (S351 only)
- SPEA (K300 only)
- Statistics

Social and Behavior Sciences

- Anthropology
- Economics
- Geography
- Linguistics
- Political Science
- Psychology
- Sociology
- SPEA (J101 only)
- WOST (W210 only)

Additional credits in labor-studies courses Credits: 12

Arts and Humanities Area of Learning (12 credits)

- Credits in a second writing course Credits: 3
- Credits from at least two different subjects Credits: 6
- ENG W131 - Elementary Composition I Cr. 3.

Social and Behavioral Sciences Area of Learning Credits: 9

Credits, including one economics course (ECON E201 is recommended); courses in this area must be selected from at least two different subjects

Science and Mathematics Area of Learning Credits: 6

Credits, including one course in computer science (recommended). Science and mathematics courses must be selected from at least two different subjects

Electives Credits: 6

Note

You must earn a minimum of 10 credits after admission to labor studies and may apply toward the degree no more than 15 credits in a single subject other than labor studies. You must complete at least 12 credits while enrolled as an IU student.

Total Credits: 60

Mathematics Concentration (A.A.)

Program Offered: Concentration A.A.
Department of Mathematical Sciences
College of Arts and Sciences

Kettler Hall 200 ~ 260-481-6821 ~ www.ipfw.edu/math

The student learning outcomes for the degree are as follows:

- Students who complete the Associate of Arts Degree in Mathematics should be able to reason mathematically and should be good problem solvers.
- Students should understand the role mathematics has played in solving important problems in a variety of disciplines, e.g. physics, engineering and business.
- Students who complete the degree should be prepared to complete a Bachelor of Science Degree in Mathematics in two years with a full-time course load.

The requirement of a Quantitative Reasoning course in IPFW General Education Area I is satisfied by the courses under the program requirements. If you plan to continue for a bachelor's degree with a major in mathematics or mathematics teaching, see Part 5 for B.S. requirements.

IPFW General Education Requirements

Area I - Linquistic and Numerical Foundations Credits: 6

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.

with a grade of C or higher
- Quantitative Reasoning course, with a grade of C or higher

Area II-Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

One science course with a scheduled laboratory required.

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV-Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Program Requirements

- MA 16500 - Analytic Geometry and Calculus I Cr. 4.
- MA 16600 - Analytic Geometry and Calculus II Cr. 4.
- MA 17500 - Introductory Discrete Mathematics Cr. 3.
- MA 26300 - Multivariate and Vector Calculus Cr. 4.

One of the following Credits: 3

- MA 30500 - Foundations of Higher Mathematics Cr. 3.
- MA 35100 - Elementary Linear Algebra Cr. 3.

Credits in the first year of a foreign language Credits: 8

Credits in a concentration with a grade of C or higher in each course (see below) Credits: 15-21

Additional credits in approved elective courses Credits: 4-12

Total credits with a graduation GPA of at least 2.00: 60-63

Mechanical Engineering Technology (A.S.)

Program: A.S.
Department of Manufacturing and Construction Engineering Technology and

Interior Design
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 221 ~ 260-481-4127 ~ www.mcet.ipfw.edu

The student learning outcomes for the degree are as follows:

- An appropriate mastery of the knowledge, techniques, skills and modern tools of the appropriate ET program.
- An ability apply current knowledge and adapt to emerging applications of mathematics, science, engineering and technology.
- An appropriate mastery of the knowledge, techniques, skills and modern tools of the appropriate ET program.
- An ability to apply current knowledge and adapt to emerging applications of mathematics, science, engineering and technology.
- An ability to conduct, analyze and interpret experiments and apply experimental results to improve processes.
- An ability to apply creativity in the design of mechanical systems, mechanical components or manufacturing processes. An ability to function effectively on teams.
- An ability to identify, analyze and solve technical problems in mechanical engineering and engineering technology. An ability to communicate effectively.
- A recognition of the need for, and an ability to engage in lifelong learning. An ability to understand professional, ethical and social responsibilities.
- A knowledge of and respect for diversity contemporary societal and global issues.
- A commitment to quality, timeliness, and continuous improvement.

This program prepares graduates with knowledge, problem-solving ability, and hands-on skills to enter careers in installation, manufacturing, testing, evaluation, computer-aided design, or maintenance of basic mechanical systems. Graduates will be prepared for both immediate employment and continuation in the B.S. program.

To earn the A.S. with a major in mechanical engineering technology, you must fulfill the requirements of IPFW (see Part 8) and complete the following courses, earning a grade of C or better in those courses that serve as prerequisites.

- technical expertise in engineering materials, applied mechanics, and applied fluid sciences.
- technical expertise in manufacturing processes, mechanical design, and computer-aided engineering graphics with added technical depth in computer-aided engineering graphics.
- expertise in applied physics having emphasis in applied mechanics plus fundamentals of electricity in physics.

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

All courses require a grade of C or better.

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
- MA 15900 - Precalculus Cr. 5.

Area II—Natural and Physical Sciences

All courses require a grade of C or better.

- PHYS 21800 - General Physics Cr. 4.

- PHYS 21900 - General Physics II Cr. 4.

Area III—The Individual, Culture, and Society

All courses require a grade of C or better.

- IET 10500 - Industrial Management Cr. 3.

Area IV—Humanistic Thought Credits: 3

See Part 2 General Education Requirements for approved courses

Core and Concentration (Major) Courses

All courses require a grade of C or better.

- ET 19000 - Statics Cr. 3.
- ET 20000 - Strength of Materials Cr. 3.
- ETCS 10100 - Introduction to Engineering, Technology, and Computer Science Cr. 1.
- IET 20004 - Techniques of Maintaining Quality Cr. 3.
- MET 10400 - Technical Graphics Communications Cr. 3.
- MET 10600 - Analytical and Computational Tools in MET Cr. 2.
- MET 18000 - Materials and Processes Cr. 3.
- MET 21600 - Machine Elements Cr. 4.
- MET 22300 - Introduction to Computer- Aided Modeling and Design Cr. 3.
- MET 33000 - Introduction to Fluid Power Cr. 3.
- MET 33500 - Basic Machining Cr. 3.

Additional Required Technical Courses

All courses require a grade of C or better.

- ECET 11400 - Introduction to Visual Basic Cr. 3.
- STAT 30100 - Elementary Statistical Methods I Cr. 3.

Required Support Courses

All courses require a grade of C or better.

- ENG W234 - Technical Report Writing Cr. 3.

Total Credits: 63

Organizational Leadership and Supervision (A.S.)

Program: A.S.
Division of Organizational Leadership and Supervision
College of Engineering, Technology, and Computer Science

*Neff Hall 288 ~ 260-481-6420 ~ **www.ipfw.edu/ols***

The student-learning outcomes for the degree are as follows:

- Students will demonstrate an understanding of contemporary issues and theories in the areas of leadership, human resources systems, and team design and facilitation.
- Students will demonstrate an understanding of organizational behavior at the individual, group, and organizational levels of analysis using theories derived from several behavioral sciences.
- Students will show an awareness of the cultural context of organizations and demonstrate their ability to work with diverse others.
- Students will be able to apply theories to real organizational and leadership problems.
- Students will demonstrate effective oral and written communication skills.
- Students will be able to manage their environment by planning for and using current technology, tools, and processes.

This program helps you prepare for leadership positions or for advancement in a wide variety of organizations. The A.S. with a major in organizational leadership and supervision is of particular benefit to individuals who already possess technical skills and work experience and to students who complete the program along with a bachelor's degree in a technical or behavioral-science area.

To earn the A.S. with a major in organizational leadership and supervision, you must satisfy the requirements of IPFW (see Part 8) and the College of Engineering, Technology, and Computer Sciece, Division of Organizational Leadership and Supervision (see Part 4); earn a grade of C or better in ENG W131, ENG W233, and each OLS course; and complete the following requirements:

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
- MA 15300 - Algebra and Trigonometry I Cr. 3.
  or
- MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.

Area II—Natural and Physical Sciences Credits: 3

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society

- PSY 12000 - Elementary Psychology Cr. 3.
- SOC S161 - Principles of Sociology Cr. 3.

Area IV—Humanistic Thought Credits: 3

See Part 2 General Education Requirements for approved courses

OLS Core Classes

- OLS 25200 - Human Relations in Organizations Cr. 3.
- OLS 26800 - Elements of Law Cr. 3.
- OLS 27400 - Applied Leadership Cr. 3.
- OLS 37500 - Training Methods Cr. 3.
- OLS 37600 - Human Resources Issues Cr. 3.

OLS Electives Credits: 6

See the OLS advisor for a list of approved OLS electives.

Technical Support Requirements

- BUS A201 - Principles of Financial Accounting Cr. 3.
- ECON E200 - Fundamentals of Economics Cr. 3.
- ENG W233 - Intermediate Expository Writing Cr. 3.
- OLS 28000 - Computer Applications for Supervisors Cr. 3.

Unrestricted Elective Courses Credits: 6

Total Credits: 63

Special Academic Regulations for Organizational Leadership and Supervision Degree Programs

Transfer students and students planning to change their major to organizational leadership and supervision must have a GPA of 2.00 or higher to be admitted into the program. A cumulative GPA of 2.0 or above is also required to remain in the division.

OLS, business, and technical courses taken more than 10 years ago will not count towards your degree requirements.

Students receiving credit for cooperative education experience can use these credits as unrestricted electives only.

If you have not registered for degree-applicable courses as an IPFW OLS major for four consecutive semesters (excluding summer), you must satisfy the degree requirements specified in the IPFW Bulletin that includes your year of re-entry.

Political Science Concentration (A.A.)

Program: Concentration A.A.
Department of Political Science
College of Arts and Sciences

Liberal Arts Building 209 ~ 260-481-6686 ~ www.ipfw.edu/pols

The student learning outcomes for the degree are as follows:

- To have a basic knowledge of the discipline in political science.
- To have basic analytical skills as well as the writing skills necessary to communicate ideas.
- To be exposed to sufficient materials so that students can decide whether or not they want to pursue a BA degree in political science.

The college's Associate of Arts program serves as an intermediate step toward completion of a baccalaureate degree. The requirements encompass approximately the first half of the bachelor's degree program offered by the sponsoring department. See Part 5 for complete requirements for related bachelor's degree.

Requirements for the Associate of Arts

IPFW General Education Requirements

Area I - Linquistic and Numerical Foundations

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
  with a grade of C or higher
- MA 15300 - Algebra and Trigonometry I Cr. 3.
  Or
- MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.

Area II-Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

One Science course with a scheduled laboratory required.

Area III-The Individual, Culture, and Society Credits: 6

Area IV—Humanistic Thought Credits: 6

Concentration Requirements

In addition to the courses listed below, you must complete MA 153 or MA 168 for your IPFW General Education course in Quantitative Reasoning. If you plan to continue for a bachelor's degree with a major in political science (see Part 5), you should take the second-year foreign-language courses as electives for the A.A.

- POLS Y205 - Elements of Political Analysis Cr. 3.
- POLS Y395 - Quantitative Political Analysis Cr. 3.

Additional credits in political science Cr: 6
Additional credits in political science, 200 level or above Cr: 6

Credits in the first year of a foreign language Credits: 8

Credits in a concentration with a grade of C or higher in each course (see below) Credits: 15-21

Additional credits in approved elective courses Credits: 4-12

Total credits with a graduation GPA of at least 2.00: 60-63

Psychology Concentration (A.A.)

Program: Concentration A.A.
Department of Psychology
College of Arts and Sciences

Neff Hall 388 ~ 260-481-6403 ~ www.ipfw.edu/psyc

The student learning outcomes for the degree are as follows:

- Students will demonstrate basic knowledge in introductory, child, social, and abnormal psychology.
- Students will demonstrate the ability to make a decision as to whether they wish to obtain a BA degree in psychology.

If you plan to continue for a bachelor's degree with a major in psychology (see Part 5), you should take the second-year foreign-language courses as electives for the A.A.

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations Credits: 9

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
  with a grade of C- or higher
- MA 15300 - Algebra and Trigonometry I Cr. 3.
  with a grade of C- or higher
  Or
- MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
  with a grade of C- or higher
  Or
- STAT 12500 - Communicating with Statistics Cr. 3.
  with a grade of C- or higher

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

One science course with a scheduled laboratory required.

Area III—The Individual, Culture, and Society Credits: 3

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Program Requirements

- Additional credits in psychology, 200 level or above Credits: 3
- PSY 12000 - Elementary Psychology Cr. 3.
- PSY 20100 - Introduction to Statistics in Psychology Cr. 3.
- PSY 31400 - Introduction to Learning Cr. 3.
- PSY 32900 - Psychobiology II: Principles of Psychobiological Psychology Cr. 3.
- PSY 41600 - Cognitive Psychology Cr. 3.

Two of the following Credits: 6

- PSY 23500 - Child Psychology Cr. 3.
  Credit not given for both PSY 23500 and PSY 36900
- PSY 24000 - Introduction to Social Psychology Cr. 3.
- PSY 35000 - Abnormal Psychology Cr. 3.
- PSY 36900 - Development Across the Lifespan Cr. 3.
  Credit not given for both PSY 23500 and PSY 36900
- PSY 42000 - Introduction to Personality Theory Cr. 3.

Credits in the first year of a foreign language Credits: 8

Credits in a concentration with a grade of C- or higher in each course Credits: 24

Additional credits in approved elective courses Credits: 6-14

Total credits with a graduation GPA of at least 2.00: 62

Radiography (A.S.)

Program: A.S.R.
Student Success Center
College of Health and Human Services

Neff Hall 120 ~ 260-481-4187 ~ www.ipfw.edu/hhs/radiography/

 The student learning outcomes for the degree are as follows:

- Demonstrate clinical procedural proficiency and radiation safety.
- Demonstrate age specific radiographic patient care.
- Evaluate the quality of radiographic images.
- Demonstrate logical film sequence for non-routine situations.
- Demonstrate effective interpersonal communication with patients and other healthcare staff.
- Demonstrate effective written communication in patient records.
- Demonstrate professional and ethical behaviors in clinical practice.

The Radiography, A.S. is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 N. Wacker Drive, Suite 2850, Chicago, IL 60606-3182; Phone: (312) 704-5300; Fax: (312) 704-5304; www.jrcert.org.

The Radiography program includes general education prerequisite courses and professional education. Students are designated as Pre-Radiography majors prior to admission into the professional program. Prerequisite courses may be completed under the advisement of the College of Health and Human Services. Professional education is a combination of classroom instruction and clinical experience. The clinical experience is conducted in the radiology departments of Parkview Hospital, Parkview North Hospital, Fort Wayne Orthopaedics and Carew Medical Park.

Admission Criteria:

Admission to the radiography professional program from Pre-Radiography status is limited and competitive. Completion of Pre-Radiography course work alone does not ensure admission. Admission is based on a total composite score of the following:

- Pre-Radiography curriculum GPA
- Estimate of Applicant Suitability forms
- Preadmission testing
- Personal interview

Pre-Radiography Curriculum:

Pre-Radiography curriculum course work and grades from all post-secondary institutions attended will be reviewed and evaluated. Pre-Radiography curriculum includes:

- BIOL 20300
- BIOL 20400
- COM 11400 or COM 21200
- ENG W131
- ETCS 10600
- MA 15300
- PSY 12000

Application to the Program:

Application Requirements - Applicants seeking admission to the radiography program must meet the following requirements:

· Complete at least 7 credit hours of preradiography curriculum with a minimum 2.7 Pre-Radiography curriculum grade point average.

· Earn a grade of C- or better in each Pre-Radiography curriculum course.

· Complete BIOL 20300, BIOL 20400, and MA 15300 courses within 5 years of the desired start date of the professional program.

· Submit an application, official high school transcript, official college transcripts (one from each post-secondary institution attended) and applicant suitability forms, hand delivered or postmarked by March 1 for desired admission into the program beginning the following Summer Semester II to:

> College of Health and Human Services
> Radiography Program Director
> Neff Hall, Room 142
> 2101 E. Coliseum Boulevard
> Fort Wayne, IN 46805-1499.

Application Information - See the academic advisor for the radiography program for application materials:

> College of Health and Human Services
> Student Success Center
> Neff Hall, Room 120
> Phone: (260) 481-0145

Preadmission Test - Applicants meeting the application requirements will be scheduled for preadmission testing. Equivalents to preadmission testing requirements will be evaluated on an individual basis.

Personal Interview - Applicants meeting the application requirements and minimum preadmission testing score will be contacted to arrange a personal interview. A personal interview is required before a final selection is made.

Admission Policies:

Repeat Attempts – An applicant may make only two graded attempts at a prerequisite course. The most recent grade will be calculated in the applicant's Pre-Radiography curriculum GPA. The applicant's two attempts will include any graded attempt, whether or not eliminated from his or her cumulative GPA by grade replacement.

Fresh Start - For the purpose of selecting candidates to the radiography program, an applicant may petition to the program's admissions committee for a fresh start. A fresh start allows removal of a defined portion of the applicant's early academic history from calculation of admission grade point average. Please contact the Pre-Radiography Academic Advisor for more information about the Fresh Start policy.

Admission Requirements:

To be admitted into the professional program, an applicant must complete all Pre-Radiography curriculum course work by the end of spring semester with a grade of C- or better in each course and maintain a minimum 2.7 Pre-Radiography curriculum grade point average.

In addition, acceptance into the Radiography Program is contingent on an applicant's ability to meet the following requirements:

- Demonstrate meeting the College of Health and Human Services Technical Standards.
- Complete a Background Check to include Driving Record.
- Submit military discharge papers, if applicable.
- Pass a Drug Screening Test.
- Complete a Physical Examination and submit a Health Record with documentation of required immunizations.
- Submit proof of Professional Liability Insurance.
- Obtain an Indiana State Board of Health Radiology Permit.

* Upon acceptance into the Radiography Program, students will be provided with the forms and information necessary to complete the above listed additional requirements. Expenses incurred in meeting the above listed additional requirements are the responsibility of the applicant.

At IPFW you may complete the following courses: (23 credits)

- BIOL 20300 - Human Anatomy and Physiology Cr. 4.
- BIOL 20400 - Human Anatomy and Physiology Cr. 4.
- ENG W131 - Elementary Composition I Cr. 3.
- MA 15300 - Algebra and Trigonometry I Cr. 3.
- PSY 12000 - Elementary Psychology Cr. 3.
- ETCS 10600 - Introduction to Computers Cr. 3.

Choose one of the following:

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- COM 21200 - Approaches to the Study of Interpersonal Communication Cr. 3.

Professional Education Program: (60 credits)

- AHLT R100 - Orientation to Radiologic Technology Cr. 2.
- AHLT R101 - Radiographic Procedures I Cr. 3-4.
  IPFW course is 4 credit hours.
- AHLT R102 - Principles of Radiography I Cr. 3.
- AHLT R181 - Clinical Experience in Radiography Cr. 1-6.
  IPFW course is 5 credit hours.
- AHLT R182 - Clinical Experience in Radiography Cr. 1-6.
  IPFW course is 5 credit hours.
- AHLT R185 - Medical Terminology Cr. 1.
- AHLT R200 - Pathology Cr. 2-3.
  IPFW course is 3 credit hours.
- AHLT R201 - Radiographic Procedures II Cr. 3-4.
  IPFW course is 4 credit hours.
- AHLT R202 - Principles of Radiography II Cr. 3.
- AHLT R205 - Radiographic Procedures III Cr. 3-4.
  IPFW course is 4 credit hours.
- AHLT R222 - Principles of Radiography III Cr. 3.

- AHLT R250 - Physics Applied to Radiology Cr. 2-4.
  IPFW course is 2 credit hours.
- AHLT R260 - Radiation Biology and Protection in Diagnostic Radiology Cr. 1-3.
  IPFW course is 2 credit hours.
- AHLT R281 - Clinical Experience in Radiography Cr. 1-6.
  IPFW course is 6 credit hours.
- AHLT R282 - Clinical Experience in Radiography Cr. 1-6.
  IPFW course is 5 credit hours.
- AHLT R283 - Clinical Experience in Radiography Cr. 1-6.
  IPFW course is 5 credit hours.
- AHLT R290 - Comprehensive Experience Cr. 1-8.
  IPFW course is 3 credit hours.

Total Credits: 83

Spanish Concentration (A.A.)

Program: Concentration A.A.
Department of International Language and Culture Studies
College of Arts and Sciences

Liberal Arts Building 267 ~ 260-481-6836 ~ www.ipfw.edu/ilcs/

The student learning outcomes for the degree are as follows:

- Acquire a basic foundation in language skills and a solid basis for further study in the language.
- Demonstrate the ability to examine stereotypes and to respond in culturally appropriate ways in everyday situations in the target culture.
- Develop an increased understanding of what it means to belong to a culture and awareness of how culture affects other interconnected issues of identity.

The college's Associate of Arts program serves as an intermediate step toward completion of a baccalaureate degree. The requirements encompass approximately the first half of the bachelor's degree program offered by the sponsoring department. See Part 5 for complete requirements for related bachelor's degree.

Requirements for the Associate of Arts

IPFW General Education Requirements

Area I - Linquistic and Numerical Foundations

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
  with a grade of C or higher

Quantitative Reasoning course, with a grade of C or higher:

- MA 15300 - Algebra and Trigonometry I Cr. 3.
  Or
- MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
  Or
- STAT 12500 - Communicating with Statistics Cr. 3.

Area II-Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

One science course with a scheduled laboratory required.

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Recommended as a selection:
- ANTH L200 - Language and Culture Cr. 3.
- LING L103 - Introduction to the Study of Language Cr. 3.

Area IV—Humanistic Thought Credits: 6

Concentration Requirements

If you plan to continue for a bachelor's degree with a major in Spanish, see Part 5 for B.A. requirements.

- SPAN S203 - Second-Year Spanish I Cr. 3.
- SPAN S204 - Second-Year Spanish II Cr. 3.
- SPAN S275 - Hispanic Culture and Conversation Cr. 3.
- SPAN S317 - Spanish Conversation and Diction Cr. 3.

One of the following Credits: 3

- SPAN S311 - Spanish Grammar Cr. 3.
- SPAN S312 - Written Composition in Spanish Cr. 3.

One of the following Credits: 3

- SPAN S301 - The Hispanic World I Cr. 3.
- SPAN S302 - The Hispanic World II Cr. 3.

Credits in the first year of a foreign language Credits: 8

Additional credits in approved elective courses Credits: 4-12

Total credits with a graduation GPA of at least 2.00: 60-63

Women's Studies Concentration (A.A.)

Program: Concentration A.A.
College of Arts and Sciences

Liberal Arts Building 35F ~ 260-481-6711 ~ www.ipfw.edu/wost

The student learning outcomes for the degree are as follows:

- Demonstrate basic understanding of major issues in feminism.
- Demonstrate basic awareness of ways in which feminist scholarship has affected the subject matter of at least two arts and Sciences disciplines.
- Have the education tools for pursuing the bachelor of arts in Women's Studies.

Women's studies is based on the premise that the study of women's experiences, concerns, social roles, and creativity is essential to our knowledge of humankind and society. Feminist scholarship and theory provide the knowledge and analytical tools necessary for a gender-balanced perspective on our world, both past and present. The Women's Studies Program affords you the opportunity to pursue feminist scholarship on women and gender through a variety of interdisciplinary courses.

If you plan to continue for a bachelor's degree with a major in women's studies (see Part 5), you should take the second-year foreign-language courses as electives for the A.A.

IPFW General Education Requirements

Area I - Linquistic and Numerical Foundations

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
  with a grade of C or higher
  Quantitative Reasoning course, with a grade of C or higher
- MA 15300 - Algebra and Trigonometry I Cr. 3.
  Or
- MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
  Or
- STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

One science course with a scheduled laboratory required

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Program Requirements

- Credits in WOST or cross-listed humanities/visual arts Credits: 3

- Credits in WOST or cross-listed social science/science Credits: 3

- Additional credits in WOST or cross-listed courses Credits: 6
- WOST W210 - Introduction to Women's Studies Cr. 3.

Credits in the first year of a foreign language Credits: 8

Credits in a concentration with a grade of C or higher in each course (see below) Credits: 15-21

Additional credits in approved elective courses Credits: 4-12

Total credits with a graduation GPA of at least 2.00: 60-63

Baccalaureate

These programs are offered by Indiana University.

Anthropology (B.A.)

Program: B.A
Department of Anthropology
College of Arts and Sciences

Kettler Hall G11A ~ 260-481-6272 ~ www.ipfw.edu/anthropology

The student learning outcomes for the degree are as follows:

- Achieve familiarity with different cultures in at least two regions of the world
- Know the major anthropological approaches to understanding the human condition
- Be able to explain societies in a holistic manner
- Achieve competency in writing
- Demonstrate critical thinking
- Acquire quantitative skills for analysis
- Demonstrate a willingness to engage learning and scholarship as a life-long endeavor

Courses in anthropology provide an understanding of the nature of cultures and help you assess various explanations of human behavior; they also assist in the development of analytical and critical abilities. The curriculum is structured to

include studies in the history and theory of anthropology, in four anthropological fields (ethnology, archeology, bioanthropology, and linguistics), in at least two different world ethnographic areas, and in topical specializations. The program helps you prepare for graduate study, for teaching, and for careers in which the understanding of various cultures is an asset.

Although a minor is not required for the B.A. with a major in anthropology, an outside concentration is recommended. Fifteen credits in history, political science, psychology, or sociology support the concentration.

To earn the B.A. with a major in anthropology, you must fulfill the requirements of IPFW (see Part 8) and the College of Arts and Sciences (see Part 4), and satisfactorily complete the following requirements:

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

- COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of the following:

- ENG W131 - Elementary Composition I Cr. 3.
- ENG W140 - Elementary Composition Honors Cr. 3.

One of the following:

- MA 15300 - Algebra and Trigonometry I Cr. 3.
- MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
- STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences

See Part 2 General Education Requirements for approved courses

- Additional credits in Area II: 3
- ANTH B200 - Bioanthropology Cr. 3.

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (not in ANTH) Credits: 3

See Part 2 General Education Requirements for approved courses

College of Arts and Sciences Requirements

English Writing

- ENG W233 - Intermediate Expository Writing Cr. 3.
  (or other approved writing course)

Foreign Language

- Requirements in Arts and Sciences Part B Credits: 14

Distribution

- Requirements in Arts and Sciences Part C Credits: 9

Cultural Studies

- Requirements in Arts and Sciences Part D Credits: 6

Core and Concentration (Major) Courses

- Additional credits in anthropology courses, including two courses selected from Group A courses and two courses selected from Group B courses, below Credits: 15
- ANTH B200 - Bioanthropology Cr. 3.
- ANTH E105 - Culture and Society Cr. 3.
- ANTH H445 - History and Theory of Anthropology Cr. 3.
- ANTH L200 - Language and Culture Cr. 3.
- ANTH P200 - Introduction to Prehistoric Archaeology Cr. 3.

Group A Regional Ethnography

- ANTH E301 - Plain People of Indiana Cr. 3.
- ANTH E310 - Introduction to the Cultures of Africa Cr. 3.
- ANTH E320 - Indians of North America Cr. 3.
- ANTH E321 - Peoples of Mexico Cr. 3.
- ANTH E330 - Indians of South America Cr. 3.
- ANTH E335 - Ancient Civilizations of Mesoamerica Cr. 3.
- ANTH E341 - Culture of China Cr. 3.
- ANTH E350 - European Ethnography Cr. 3.
- ANTH E356 - Cultures of the Pacific Cr. 3.
- ANTH E398 - Peoples and Cultures of Central Asia Cr. 3.

- ANTH E479 - Indian Cultures of Peru Cr. 3.

Group B Topics in Anthropology

- ANTH A495 - Individual Readings in Anthropology Cr. 1-4.
- ANTH A496 - Field Study in Anthropology Cr. 3-8.
- ANTH B426 - Human Osteology Cr. 3.
- ANTH E102 - Anthropology of America Cr. 3.
- ANTH E375 - Cultural Psychiatry Cr. 3.
- ANTH E400 - Undergraduate Seminar Cr. 3.
- ANTH E401 - Ecology and Culture Cr. 3.
- ANTH E402 - Gender in Cross-Cultural Perspective Cr. 3.
- ANTH E405 - Principles of Social Organization Cr. 3.
- ANTH E406 - Anthropology and Documentary Films Cr. 3.
- ANTH E420 - Economic Anthropology Cr. 3.
- ANTH E421 - The Anthropology of Aging Cr. 3.
- ANTH E445 - Medical Anthropology Cr. 3.
- ANTH E455 - Anthropology of Religion Cr. 3.
- ANTH E462 - Anthropological Folklore Cr. 3.
- ANTH E470 - Psychological Anthropology Cr. 3.
- ANTH P220 - Rise and Fall of Ancient Civilizations Cr. 3.
- ANTH P300 - Topics in Prehistory Cr. 3.
- ANTH P360 - Archaeology of North America Cr. 3.
- ANTH P361 - Prehistory of Eastern North America Cr. 3.
- ANTH P370 - Ancient Cultures of South America Cr. 3.
- ANTH P376 - Archaeology of Death Cr. 3.
- ANTH P382 - Archaeological Research Design Cr. 3.
- ANTH P399 - Undergraduate Seminar Cr. 3.
- ANTH P400 - Archaeological Methods and Techniques Cr. 2-4.
- ANTH P405 - Fieldwork in Archaeology Cr. 1-8.
- LING L103 - Introduction to the Study of Language Cr. 3.
- LING L360 - Language in Society Cr. 3.

General Elective Courses

- Sufficient additional credits to bring the total to 124.

Total Credits: 124

Art Education (B.A.)

Program: B.A. Art Education(All-Grade Education Program)
Department of Fine Arts
College of Visual and Performing Arts

The student learning outcomes for the degree are as follows:

- The Bachelor of Art in Art Education degree prepares the student to teach elementary, middle school, and junior high/senior high art.
- The Bachelor of Arts in Art Education program at IPFW promotes and cultivates the role of artist/teacher as the ideal educator of the arts in schools today. With a solid background in studio arts, student teachers use their experience as artists to develop a philosophy that aims to create authentic art making conditions in their future positions as art educators. Art educators learn to advocate for the arts and are given learning opportunities both in school and museum contexts as they grow to share learning and understanding of visual arts education.

The Bachelor of Art in Art Education degree is divided into three parts; 36 credit hours of General Education, 54 credit hours of art history and art studio courses, and 38 credit hours of Professional Education classes. A 3.00 GPA in the Content Field (art history and art studio) and a 2.5 cumulative GPA is required for this degree. A cumulative GPA of 2.5 from coursework taken from previous institutions or in IPFW Professional Education classes needs to be recorded. In addition each Area of General Education must maintain a 2.0 GPA. A total of 128 credits is required for graduation.

Components:		Credits
I. General Education		**36**
II. Content Field		**54**
III. Professional Education		**38**
	Total	**128**

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
  (grade of B or higher)
- ENG W131 - Elementary Composition I Cr. 3.
  (grade of B or higher)
- ENG W233 - Intermediate Expository Writing Cr. 3.

One of the Following Credits: 3

- MA 15300 - Algebra and Trigonometry I Cr. 3.
- MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
- STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences

One class in: Astronomy, Chemistry, Geology, Physics, or Bioanthropology Credits: 3.

- BIOL 10000 - Introduction to the Biological World Cr. 3.

  or

- BIOL 25000 - Women and Biology Cr. 3.

Area III—The Individual, Culture, and Society

One of the following Credits: 3

- PSY 12000 - Elementary Psychology Cr. 3.
- SOC S161 - Principles of Sociology Cr. 3.

One of the following Credits: 3

- ANTH E105 - Culture and Society Cr. 3.
- ANTH L200 - Language and Culture Cr. 3.
- COM 30300 - Intercultural Communication Cr. 3.
- ENG L364 - Native American Literature Cr. 3.

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

- FINA courses can not be used.

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

- VCD or FINA courses can not be used.

Area VI—Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses

Class must be attained at IPFW.

College of Visual and Performing Arts Requirements Credits: 54

II. Content Area

Art History Requirements Credits: 6

FINA H111 and H112 should be taken just prior to Praxis II testing (see Professional Teaching Requirements).
- FINA H111 - Ancient and Medieval Art Cr. 3.
- FINA H112 - Renaissance Through Modern Art Cr. 3.

100 Level Foundations Requirements Credits: 12

- FINA P121 - Drawing Fundamentals I-II Cr. 3.
- FINA P122 - Drawing Fundamentals I-II Cr. 3.
  (P121 is a prerequisite to P122)
- FINA P151 - Design Fundamentals I-II Cr. 3.
- FINA P152 - Design Fundamentals I-II Cr. 3.

100 Level Foundation Portfolio Review Checkpoint

Students in all of the Department of Fine Arts programs will submit a portfolio of 100 level Foundation studio work to be reviewed by Department of Fine Arts faculty. The review is a checkpoint to assure that students have met adequate quality standards in the Foundation program. The portfolio will consist of 12-15 works, with at least two works from each 100 level Foundation course. Upon a satisfactory portfolio review, students will continue in 200 level Fundamentals studio classes. Some students may be asked to re-take particular Foundation classes to attain department standards.

200 Level Studio Requirements Credits: 21

200 Level courses do not have to be taken in this order.
- FINA P223 - Figure Drawing I Cr. 3.
- FINA P225 - Painting Fundamentals I Cr. 3.
- FINA P231 - Sculpture Fundamentals Cr. 3.
- FINA P233 - Metalsmithing Fundamentals Cr. 3.
- FINA P235 - Ceramics Fundamentals Cr. 3.
- FINA P241 - Printmaking Fundamentals Cr. 3.
- VCD P273 - Computer Art and Design I Cr. 3.

B.A. in Art Education Portfolio Review

Each student must submit a portfolio of 200 level work to attain formal acceptance into the B.A. in Art Education program. The portfolio review must be passed and recorded before students will be allowed to enter the Block 1 Teacher Education block of classes. Students presenting a portfolio for acceptance into the B.A. in Art Education program can declare an area of studio concentration, i.e. painting, sculpture, or can decide to take a variety of advanced studio classes. The portfolio should consist of 15-20 works, with at least two works from each 200 level Fundamentals course. It is highly recommended that students seek faculty advice on which works to submit for review. Faculty evaluations will be based on a student's strong knowledge and skills in:

- showing competence in representational drawing of volume, pictorial space, and the depiction of the human figure. An understanding of linear perspective should be evident.
- the ability to compose aesthetic element of line, tone/value, shape, texture, color, and 3D form in space.
- demonstrating technical and aesthetic excellence (for the 60 credit level) in your chosen major; i.e. drawing, ceramics, metalsmithing, painting, printmaking, or sculpture.
- (for 2D majors) drawing, painting, printmaking as well as the demonstration of competence and serious investigation in 3D media.
- (for 3D majors) ceramics, metalsmithing, and sculpture with competence and serious investigation in 2D media.

B.A. in Art Education Portfolio Review Outcome

A student applying for acceptance in the B.A. in Art Education program may be accepted, deferred, or denied. A student's acceptance into the B.A. in Art Education will allow them to advance into 300 level studio classes as a B.A in Art Education major. A deferred student will be asked to re-submit their portfolio for consideration after re-taking requested classes. A student denied entry into the B.A. in Art Education program may wish to consider the B.A. program or apply once again for entry into the B.A. in Art Education program with permission from the department.

Advanced Studio Courses Credits: 15

<u>300/400 Studio</u>
- Five (5) advanced 300/400 studio courses need to be fulfilled in this area.
- 300 level classes must be taken prior to 400 level classes
- Two (2) Department of Visual Communications and Design (VCD) courses can be taken in this area.

Professional Education Requirements Credits: 38

Initial Requirement Block Credits: 4

Block should be completed within the sophomore year.

- EDUA F300 - Topical Exploration in Education Cr. 1-3.
  Credits: 2
  Education Portfolio Checkpoint
- EDUC K201 - Schools, Society, and Exceptionality Cr. 1-3.
  Credits: 1
- EDUC M101 - Laboratory/Field Experience Cr. 0-3.
  Credits: 0 (field experience required)
- EDUC W200 - Using Computers for Education Cr. 1.
  Admission to the TEP is required for remaining courses.

PPST Testing

PPST (Pre-Professional Skills Test)

Test results must be turned into Department of Fine Arts secretary prior to registering for Block 1 Teacher Education classes. Initial Requirement Block and all areas of the PPST must be completed, passed, and recorded prior to registration into Block 1 Teacher Education. The Department of Fine Arts 200 Level Portfolio Review must also be passed before entering Teacher Education Block 1. The IPFW School of Education has information about PPST study guides and testing schedules.

Block 1: Teacher Education Requirements Credits: 12

Block 1 must be completed before entering Block 2.

- EDUC H340 - Education and American Culture Cr. 2-3.
  Credits: 3
- EDUC K206 - Teaching Methods for Students with Special Needs Cr. 1-3.
  Credits: 3
- EDUC M330 - Foundations of Art Education and Methods I Cr. 3
  (Methods I must be taken before Methods II) (requires field experience)
- EDUC P250 - General Educational Psychology Cr. 1-4.
  Credits: 3 (requires field experience)
  Education Portfolio Checkpoint

Block 2: Professional Education Credits: 9

- EDUC M430 - Foundations of Art Education and Methods II Cr. 3
  (field experience required)
  Education Portfolio Checkpoint
- EDUC P254 - Educational Psychology for Teachers of All Grades Cr. 1-4.
  Credits: 3 (field experience required)
- EDUC X401 - Critical Reading in the Content Area Cr. 1-3.
  Credits: 3

Praxis II (Art Education Exam)

Praxis II must be passed and recorded prior to applying for a teaching license.   Art History H111 and H112 (see above) should be taken just prior to Praxis II testing.

Student Teaching Credits: 13

- 10 week plus 6 week combination.
- Student must complete an application for student teaching **one year** before intended student teaching semester.

- EDUC M482 - Student Teaching: All Grades Cr. 1-16.
  Credits: 13
- EDUC M501 - Lab/Field Experience Cr. 0-3.
  Final Education Portfolio Checkpoint

Recommendations, Requirements, Transfers, and Policies

Recommendations Students should schedule classes within the B.A. program under the guidance of the official departmental advisor.

Residence Requirements For a bachelor's degree, registration in and completion of at least 33 credits of resident course credit at the 200 level or above, including at least 15 credits at the 300 level or above, in courses applicable to the major.

Transfer and Returning Student Credit All studio and art history courses transferred from another institution or former IPFW art programs must be evaluated by appropriate faculty in the Department of Fine Arts program before they may be applied to a major in Fine Arts. See Transfer and Returning Student Credit Review.

Transfer and Returning Student Credit Review Courses in studio art that have been transferred to IPFW from another institution or former IPFW art programs are not counted as part of the Fine Arts major unless they have been reviewed by the Fine Arts faculty. For a review of transferred studio credit, the student should provide the viewer with a portfolio consisting of representative work in each area (e.g. painting, sculpture, etc.) for which the transfer credit is desired. The portfolio should include both studies and finished work and be as encompassing as possible.

Academic Probation/Dismissal Policies
If a student does not meet the university's GPA standard, they will be notified that they have been placed on academic probation and will be asked to make progress towards meeting campus standards. Department of Fine Arts programs have their own academic standards as stated above. If a student is not meeting these standards, they will be notified and placed on departmental academic probation. If a student does not make positive progress towards meeting the academic standards of the department within twelve (12) credit hours of study, they will be subject to dismissal from the Department of Fine Arts program.

Biology (B.S.)

Program: B.S.
Department of Biology
College of Arts and Sciences

Science Building 330 ~ 260-481-6305 ~ www.ipfw.edu/bio

The student learning outcomes for the degree are as follows:

Provide coursework, research experience, and advising for students who seek employment after the B.S. degree or who expect to enter graduate and professional schools.

- Students should have demonstrated comprehension of basic biological principles and theories and a demonstrated ability to apply those theories and principles to problem solving.
- Students should have demonstrated knowledge of the scientific method, and should be able to apply that knowledge to problem solving. Students should also have the ability to critically evaluate biological information.
- Students should have demonstrated the basic knowledge and experience of field and laboratory work and be able to communicate the results of an investigation.

Special Regulation for Biology Majors

Time Limit - All biology courses applied toward graduation must be completed within 10 years from the time the first biology course was completed.

To earn a B.S. with a major in biology, you must fulfill the requirements of IPFW and of the College of Arts and Sciences (see Part 4 and Part 8); earn a GPA of 2.30 or higher in BIOL 117, 119, 217, 218, 219, and 491 and in A/B-elective courses in biology (listed below); and complete the following courses:

Area I—Linguistic and Numerical Foundations

- COM 11400 - Fundamentals of Speech Communication Cr. 3.

- MA 15300 - Algebra and Trigonometry I Cr. 3.

One of the following Credits: 3

- ENG W131 - Elementary Composition I Cr. 3.
  Or
- ENG W140 - Elementary Composition Honors Cr. 3.

Area II—Natural and Physical Sciences

- BIOL 11700 - Principles of Ecology and Evolution Cr. 4.
  (credits included in Biology Core, below)
- CHM 11500 - General Chemistry Cr. 4.
  (credits included in Supporting Courses, below)

Area III—The Individual, Culture, and Society (Credits: 6)

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought (Credits: 6)

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression (Credits: 3)

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis

(credits included in Supporting Courses, below)

- CHM 22400 - Introductory Quantitative Analysis Cr. 4.
- CHM 32100 - Analytical Chemistry I Cr. 4.

College of Arts and Sciences Requirements

English Writing

- ENG W233 - Intermediate Expository Writing Cr. 3.

Foreign Language

- Requirements in Arts and Sciences Part B Credits: 8

Core and Concentration (Major) Courses

- BIOL 11700 - Principles of Ecology and Evolution Cr. 4.
- BIOL 11900 - Principles of Structure and Function Cr. 4.
- BIOL 21700 - Intermediate Ecology Cr. 3.
- BIOL 21800 - Genetics and Molecular Biology Cr. 4.
- BIOL 21900 - Principles of Functional Biology Cr. 4.
- BIOL 49100 - Senior Biology Seminar Cr. 1.

Supporting Courses

- CHM 11500 - General Chemistry Cr. 4.
- CHM 11600 - General Chemistry Cr. 4.
- CHM 22400 - Introductory Quantitative Analysis Cr. 4.
- ETCS 10600 - Introduction to Computers Cr. 3.

One of the following sequences Credits: 8

- CHM 25400 - Organic Chemistry Laboratory Cr. 1.
- CHM 25500 - Organic Chemistry Cr. 3.
  and
- CHM 25600 - Organic Chemistry Cr. 3.
- CHM 25800 - Organic Chemistry Laboratory Cr. 1.

Or Select:

- CHM 25400 - Organic Chemistry Laboratory Cr. 1.
  and
- CHM 26100 - Organic Chemistry Cr. 3.

And

- CHM 25800 - Organic Chemistry Laboratory Cr. 1.
  and
- CHM 26200 - Organic Chemistry Cr. 3.

Calculus and Statistics

The following calculus and statistics course pattern is typical. Course substitutions are possible with advisor approval. Please note that most graduate programs require a full year of calculus.

- MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.
- STAT 24000 - Statistical Methods for Biology Cr. 3.
- STAT 34000 - Elementary Statistical Methods II Cr. 3.

One of the following sequences Credits: 8–10

- PHYS 20100 - General Physics I Cr. 5.
  and
- PHYS 20200 - General Physics II Cr. 5.
  or
- PHYS 22000 - General Physics Cr. 4.
  and
- PHYS 22100 - General Physics Cr. 4.

General Elective Courses (Credits: 16)

In the interest of broadly training our majors, students are required to take at least one course ***with laboratory*** from each of the A and B elective course lists below. The A elective courses focus on topics regarding the intact organism and its interaction with the environment, and so are organismal, population, community, and ecosystem in nature. The B elective courses focus on processes acting within the organism, and thus detail molecular, cellular, and organ-system mechanisms.

A-Electives

(organismal, population, community, and ecosystem)

- BIOL 33500 - Animal Behavior Cr. 3.
  separate laboratory available (BIOL 336)
- BIOL 33600 - Animal Behavior Lab Cr. 1.
- BIOL 34500 - Vertebrate Biology Cr. 4.
  includes laboratory
- BIOL 43400 - Marine Community Ecology Cr. 3.
  includes laboratory
- BIOL 44500 - Aquatic Biology Cr. 3.
  includes laboratory
- BIOL 50100 - Field Botany Cr. 4.
  includes laboratory
- BIOL 50200 - Conservation Biology Cr. 3.
- BIOL 50500 - Biology of Invertebrate Animals Cr. 3.
  includes laboratory
- BIOL 52000 - Contemporary Parasitology Cr. 3.
- BIOL 54300 - Population Ecology Cr. 4.
  includes laboratory
- BIOL 55600 - Physiology I Cr. 3.
  separate laboratory available (BIOL 55800)
- BIOL 55800 - Laboratory in Physiology Cr. 2.
- BIOL 57900 - Fate of Chemicals in the Environment Cr. 4.
  includes laboratory
- BIOL 58000 - Evolution Cr. 3.
- BIOL 58200 - Ecotoxicology Cr. 3.
- BIOL 58600 - Topics in Behavior and Ecology Cr. 3.
- BIOL 59200 - The Evolution of Behavior Cr. 3.
- BIOL 59800 - Biology of Fish Cr. 4.
  includes laboratory
- ENTM 20600 - General Applied Entomology Cr. 2.
  separate laboratory available (ENTM 207)
- ENTM 20700 - General Applied Entomology Laboratory Cr. 1.
- FNR 50500 - Molecular Ecology and Evolution Cr. 3.
- FNR 52300 - Aquaculture Cr. 3.

B-Electives

(molecular, cellular, and organ-system)

- BIOL 21500 - Basic Human Anatomy Cr. 4.
  includes laboratory
- BIOL 31500 - Developmental Anatomy Cr. 4.
  includes laboratory
- BIOL 35000 - Plant Physiology Cr. 4.
  includes laboratory
- BIOL 38100 - Cell Biology Cr. 3.

separate laboratory available (BIOL 382)

- BIOL 38200 - Laboratory in Cell Biology Cr. 1.
- BIOL 43700 - General Microbiology Cr. 4.
  includes laboratory
- BIOL 50600 - Human Molecular Genetics Cr. 3.
- BIOL 50900 - Molecular Biology and Applications Cr. 3.
  separate laboratory available (BIOL 584)
- BIOL 51500 - Molecular Genetics Cr. 3.
- BIOL 51600 - Molecular Biology of Cancer Cr. 3.
- BIOL 53300 - Medical Microbiology Cr. 3.
- BIOL 53700 - Immunobiology Cr. 3.
- BIOL 54000 - Biotechnology Cr. 3.
- BIOL 54400 - Principles of Virology Cr. 3.
- BIOL 55900 - Endocrinology Cr. 3.
- BIOL 56500 - Immunobiology Lab Cr. 1.
- BIOL 56600 - Developmental Biology Cr. 3.
  separate laboratory available (BIOL 567)
- BIOL 56700 - Laboratory in Developmental Biology Cr. 1.
- BIOL 58400 - Molecular Biology and Applications Laboratory Cr. 1.

Free Electives

- Sufficient additional credits to bring the total to 124.

Total Credits: 124

Honors in Biology

You may earn an honors degree in biology by achieving an overall GPA of 3.00 or higher and a biology GPA of 3.50 or higher, conducting a two-semester (minimum of 5 credits) research project, preparing a senior thesis based on the research project, and giving an oral presentation of the thesis research. The senior thesis committee must be established one semester before graduation.

Biology with Life Science Teaching Certification (B.S.)

Program: B.S.
Department of Biology
College of Arts and Sciences

Science Building 330 ~ 260-481-6305 ~ www.ipfw.edu/bio

The student learning outcomes for the degree are as follows:

<u>Learning Goals</u>

Provide coursework, research experience, and advising for students who seek employment after the B.S. degree or who expect to enter graduate and professional schools.

- Students should have demonstrated comprehension of basic biological principles and theories and a demonstrated ability to apply those theories and principles to problem solving.
- Students should have demonstrated knowledge of the scientific method, and should be able to apply that knowledge to problem solving. Students should also have the ability to critically evaluate biological information.
- Students should have demonstrated the basic knowledge and experience of field and laboratory work and be able to communicate the results of an investigation.

The study of biology is an excellent way to prepare for a career in teaching because it provides the student with a solid foundation in science as well as in teaching. Students who plan to earn a B.S. with a major in biology with life science teaching certification should consult regularly with the coordinator of advising of the School of Education.

To earn a B.S. with a major in biology with life science teaching certification, you must fulfill the requirements specified by the IPFW School of Education and fulfill the requirements of IPFW and of the College of Arts and Sciences with the exception of the foreign language requirement (see Part 4 and Part 8).

The School of Education requires that you first complete EDUA F300, EDUC W200/M101, and EDUC K201 before you are permitted to take professional education courses. Prior to your junior year, you must successfully complete the Pre-Professional Skills Test (PPST) before admission to the teacher education program. The PRAXIS II Specialty Area Exam must be completed before or during the student-teaching semester, normally in your senior year.

To be eligible to apply for teacher licensure, you must earn a GPA of 2.00 or higher in each general education area. You should work closely with your advisor to ensure completion of general education requirements for teacher licensing. You must also earn a cumulative GPA of 2.50 or higher in your major area and the professional education courses with an overall GPA of 2.5 or higher. Each professional education course must be completed with a grade of C or better.

Students who qualify may elect to do an independent project supervised by a faculty member. Credits earned in these courses (BIOL 295 or BIOL 595) cannot be used to satisfy A/B-elective requirements.

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

- MA - Mathematics course approved for IPFW Genderal Education Area I
- COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of the following Credits: 3

- ENG W131 - Elementary Composition I Cr. 3.
  or
- ENG W140 - Elementary Composition Honors Cr. 3.

Area II—Natural and Physical Sciences

- BIOL 11700 - Principles of Ecology and Evolution Cr. 4.
- CHM 11500 - General Chemistry Cr. 4.

Area III—The Individual, Culture, and Society (Credits: 6)

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought (Credits: 6)

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression (Credits: 3)

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis

One of the following Credits: 0

(credits included in Supporting Courses, below)

- CHM 22400 - Introductory Quantitative Analysis Cr. 4.
- CHM 32100 - Analytical Chemistry I Cr. 4.

School of Arts and Sciences Requirements

English Writing

- ENG W233 - Intermediate Expository Writing Cr. 3.

Core and Concentration (Major) Courses

- BIOL 11700 - Principles of Ecology and Evolution Cr. 4.
- BIOL 11900 - Principles of Structure and Function Cr. 4.
- BIOL 21700 - Intermediate Ecology Cr. 3.
- BIOL 21800 - Genetics and Molecular Biology Cr. 4.
- BIOL 21900 - Principles of Functional Biology Cr. 4.
- BIOL 49100 - Senior Biology Seminar Cr. 1.

Supporting Courses (40–42 credits)

- CHM 11500 - General Chemistry Cr. 4.
- CHM 11600 - General Chemistry Cr. 4.
- CHM 25400 - Organic Chemistry Laboratory Cr. 1.
- CHM 25500 - Organic Chemistry Cr. 3.
- CHM 25600 - Organic Chemistry Cr. 3.
- CHM 25800 - Organic Chemistry Laboratory Cr. 1.
- ETCS 10600 - Introduction to Computers Cr. 3.
- MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.
- STAT 24000 - Statistical Methods for Biology Cr. 3.

- STAT 34000 - Elementary Statistical Methods II Cr. 3.

One of the following Credits: 4

- CHM 22400 - Introductory Quantitative Analysis Cr. 4.
  or
- CHM 32100 - Analytical Chemistry I Cr. 4.

One of the following sequences Credits: 8–10

- PHYS 20100 - General Physics I Cr. 5.
- PHYS 20200 - General Physics II Cr. 5.
  or
- PHYS 22000 - General Physics Cr. 4.
- PHYS 22100 - General Physics Cr. 4.

General Elective Courses (Credits: 10–12)

You must complete at least one course with a laboratory in each group.

A-Electives

(organismal, population, community, and ecosystem)

- BIOL 33500 - Animal Behavior Cr. 3.
  separate laboratory available (BIOL 336)
- BIOL 33600 - Animal Behavior Lab Cr. 1.
- BIOL 34500 - Vertebrate Biology Cr. 4.
  includes laboratory
- BIOL 43400 - Marine Community Ecology Cr. 3.
  includes laboratory
- BIOL 44500 - Aquatic Biology Cr. 3.
  includes laboratory
- BIOL 50100 - Field Botany Cr. 4.
  includes laboratory
- BIOL 50200 - Conservation Biology Cr. 3.
- BIOL 50500 - Biology of Invertebrate Animals Cr. 3.
  includes laboratory
- BIOL 52000 - Contemporary Parasitology Cr. 3.
- BIOL 54300 - Population Ecology Cr. 4.
  includes laboratory
- BIOL 55600 - Physiology I Cr. 3.
  separate laboratory available (BIOL 558)
- BIOL 55800 - Laboratory in Physiology Cr. 2.
- BIOL 57900 - Fate of Chemicals in the Environment Cr. 4.
  includes laboratory
- BIOL 58000 - Evolution Cr. 3.
- BIOL 58200 - Ecotoxicology Cr. 3.

- BIOL 58600 - Topics in Behavior and Ecology Cr. 3.
- BIOL 59200 - The Evolution of Behavior Cr. 3.
- BIOL 59800 - Biology of Fish Cr. 4.
  includes laboratory
- ENTM 20600 - General Applied Entomology Cr. 2.
  separate laboratory available (ENTM 207)
- ENTM 20700 - General Applied Entomology Laboratory Cr. 1.
- FNR 50500 - Molecular Ecology and Evolution Cr. 3.
- FNR 52300 - Aquaculture Cr. 3.

B-Electives

(molecular, cellular, and organ-system)

- BIOL 21500 - Basic Human Anatomy Cr. 4.
  includes laboratory
- BIOL 31500 - Developmental Anatomy Cr. 4.
  includes laboratory
- BIOL 35000 - Plant Physiology Cr. 4.
  includes laboratory
- BIOL 38100 - Cell Biology Cr. 3.
  separate laboratory available (BIOL 382)
- BIOL 38200 - Laboratory in Cell Biology Cr. 1.
- BIOL 43700 - General Microbiology Cr. 4.
  includes laboratory
- BIOL 50600 - Human Molecular Genetics Cr. 3.
- BIOL 50900 - Molecular Biology and Applications Cr. 3.
  separate laboratory available (BIOL 584)
- BIOL 51500 - Molecular Genetics Cr. 3.
- BIOL 51600 - Molecular Biology of Cancer Cr. 3.
- BIOL 53300 - Medical Microbiology Cr. 3.
- BIOL 53700 - Immunobiology Cr. 3.
  separate laboratory available (BIOL 565)
- BIOL 54000 - Biotechnology Cr. 3.
- BIOL 54400 - Principles of Virology Cr. 3.
- BIOL 55900 - Endocrinology Cr. 3.
- BIOL 56500 - Immunobiology Lab Cr. 1.
- BIOL 56600 - Developmental Biology Cr. 3.
  separate laboratory available (BIOL 567)
- BIOL 56700 - Laboratory in Developmental Biology Cr. 1.
- BIOL 58400 - Molecular Biology and Applications Laboratory Cr. 1.

School of Education Requirements (Credits: 37-41)

Prior to being admitted to the teacher education program, you must complete the Initial Requirement courses and pass the PPST.

Initial Requirements

- EDUA F300 - Topical Exploration in Education Cr. 1-3.
- EDUC K201 - Schools, Society, and Exceptionality Cr. 1-3.
- EDUC M101 - Laboratory/Field Experience Cr. 0-3.
- EDUC W200 - Using Computers for Education Cr. 1.

Block I

- EDUC H340 - Education and American Culture Cr. 2-3.
- EDUC K206 - Teaching Methods for Students with Special Needs Cr. 1-3.
- EDUC M201 - Laboratory/Field Experience Cr. 0-3.
- EDUC P250 - General Educational Psychology Cr. 1-4.

Block II

- EDUC M449 - Methods of Teaching Science in the Secondary Schools Cr. 3.
- EDUC P253 - Educational Psychology for Secondary Teachers Cr. 1-4.
- EDUC Q400 - Man and Environment: Instructional Methods Cr. 3.
- EDUC X401 - Critical Reading in the Content Area Cr. 1-3.
- EDUC M301 - Laboratory/Field Experience Cr. 0-3.
- EDUC M401 - Laboratory/Field Experience Cr.0-3.

Student Teaching

- EDUC M480 - Student Teaching in the Secondary School Cr. 1-16.
  Credits: 12
- EDUC M501 - Lab/Field Experience Cr. 0-3.
  Credits: 0
- EDUC M470 - Practicum Cr. 3-8.
  (Optional: Practicum in Middle School) Credits: 4

Total Credits: 131–135

Business (B.S.B.)

Program: B.S.B.
SBMS Undergraduate Student Success Center
Richard T. Doermer School of Business and Management Sciences

Neff Hall 366 ~ 260-481-6472 ~ www.ipfw.edu/bms

The student learning outcomes for the degree are as follows:

- Upon completion of the Bachelors in Business Degree, students will:
- Be able to integrate fundamental principles of business theory and practice.
- Be able to solve problems by modeling, analyzing data (qualitative and numeric), and using critical thinking skills.

- Be able to understand the global and cultural implications of business decisions.
- Be able to understand ethical considerations in business decision.
- Be able to understand the relationship between the community and business.
- Be able to demonstrate the effective communication and teamwork skills.
- Be prepared for life-long learning in a dynamic environment.

The faculty of the Richard T. Doermer School of Business and Management Sciences believe that quality in product and services, competitiveness in the global marketplace, and professionalism are critical to business success. As a result, the undergraduate business curriculum is designed around the principles of competitiveness, quality, and professionalism. Faculty members are dedicated to the development of business professionals who have the knowledge and skills to contribute effectively to their organizations and community.

A significant portion of the B.S.B. curriculum is composed of courses that provide a basic understanding of principles and practices involved in the management of business firms. Another large component, slightly more than half of your credits, is the general education core. These courses provide a well-rounded background necessary for success in a diverse business environment. Further, in order to ensure a balanced educational program, the business curriculum offers ample opportunities to take courses in a specific concentration area of interest to you.

The B.S.B. program is accredited by the International Association for Management Education (AACSB), which provides a voluntary mechanism of quality control. AACSB is the most prestigious business accrediting body in the nation. Only about one-quarter of all business schools in the nation possess this distinction.

Your initial courses are selected from introductory-level general education, business, and economics subjects. When you have qualified for admission to the B.S.B. program, additional opportunities are provided for in-depth studies in a variety of advanced business, management, and analytical subjects. These advanced studies help you prepare for positions of increasing executive responsibility in the business community.

At the time you are admitted to the B.S.B. program, you must declare a specialization in one of five concentrations: accounting, business economics, finance, management, or marketing.

Admission

Students are admitted as pre-business students until they have completed the specific pre-business requirements needed for admission to the Bachelor's degree program.

To be admitted to the B.S.B. program applicants must have a cumulative GPA of 2.00 or higher and will have completed at least 60 credits that apply toward the degree, including the courses listed below. Within this course listing, successful applicants will have (1) a grade of C or better in each course marked with an * and (2) a GPA of 2.30 or better (the grade for ENG W131 is not included in this GPA calculation).

Courses Specifically Required for Admission to the B.S.B. Program

Course Number and Title		Credits
BUS J100*	*Intro to College and Business Careers*	1
BUS A201*	***Principles of Financial Accounting***	**3**
BUS A202*	***Principles of Managerial Accounting***	**3**
BUS K200*	*Computer Literacy Concepts*	0

BUS K211*	*Spreadsheets for Business*	1
BUS K212*	*Introduction to Database Management*	1
BUS K213*	*Internet Access and Data Analysis for Business*	1
BUS L200*	*Elements of Business Law*	3
BUS W204*	*Social, Legal, and Ethical Implications of Business Decisions*	3
COM 114	*Fundamentals of Speech Communication*	3
ECON E201*	*Introduction to Microeconomics*	3
ECON E202*	*Introduction to Macroeconomics*	3
ECON E270*	*Introduction to Statistical Theory in Economics and Business I*	3
ENG W131*	*Elementary Composition I* (or equivalent)	3
ENG W233*	*Intermediate Expository Writing*	3
MA 229	*Calculus for the Managerial, Social, and Biological Sciences I*	3
PSY 120 OR	*Elementary Psychology*	3
SOC S161	*Principles of Sociology*	3
BUS J200	*Business Degree Seminar*	0

Two additional rules apply to applicants' progress through the above courses:

1. No more than 6 credits of these courses may be repeated, and no course may be repeated more than once.
2. Both the original and the repeat grades earned in the above courses will be used to compute the admission GPA. This includes courses that you have taken or repeated at IPFW and other IU campuses. Students who transfer in more than 20 credits of the 39 credits listed will be admitted to the B.S.B. program on a probationary basis.

Note:

Bachelor's degree programs in business are offered at other Indiana University and IU-Purdue campuses. Since admission and graduation requirements vary among these campuses, you must meet the admission and graduation requirements of the campus from which you intend to graduate.

Enrollment in Business Courses Numbered 300 and Above

Unless you have attained junior class standing and met at least one of the following conditions, you are not permitted to enroll in a business course numbered 300 or above:

- You have been admitted to the B.S.B. program at IPFW.
- The course is a specified requirement for another bachelor's degree program or minor in which you are enrolled and you have completed all course prerequisites.

- You have obtained written permission from the department through which the course is offered.

If you have enrolled and are not eligible, you will be withdrawn from the course.

B.S.B. REQUIREMENTS

To earn the B.S.B., you must complete a minimum of 123 credits as specified below. You must satisfy the requirements of IPFW (see Part 8) and the Richard T. Doermer School of Business and Management Sciences, earn a grade of C or better in those courses marked with an * , earn a grade of C or better in each BUS and ECON course, and complete the four categories of requirements described below. Developmental courses (e.g., ENG R150, R151, W129and W130; MA 109, 111, and 113) do not apply to degree requirements.

Your final consecutive 30 credits must be taken at IPFW after you have been formally admitted to the B.S.B. program. Business majors may not count BUS, ECON or OLS courses towards their general education requirements (the only exception is OLS 454).

COMPLETION/ TIME LIMIT Many of the upper level courses required for this degree are sequenced, and many are offered only in alternate semesters. Therefore, regardless of the number of credits you may have earned prior to admission to the B.S.B. program, the school cannot guarantee that you will be able to complete all degree requirements in fewer than four regular semesters after admission. It is the school's intention that you possess the most current knowledge and skills when you complete your degree, therefore no more than four years may elapse once you have been admitted to the upper level BSB program. If more than four years have elapsed, your cumulative academic record will be reviewed by the appropriate business or economics department and you will be required to meet the degree criteria specified in the current IPFW Bulletin. This may result in your having to repeat those courses in which the original content is determined to be outdated. In the event that you are not enrolled for one year or more you will be required to follow the current bulleting requirements at the time you return to school.

OVERLAPPING COURSES You may not count toward graduation any courses or sequences considered to have overlapping content.

CREDIT BY SELF_ACQUIRED COMPETENCY IPFW business programs do not award credit for self-acquired competency (experiential credit). Credit awarded on this basis, regardless of its source, will not apply toward IPFW business degrees.

ACADEMIC PROBATION You are on academic probation upon completion of a semester or summer session in which you fail to earn a semester GPA of 2.0 or higher.

TRANSFER CREDIT Generally, courses in basic business and economics subjects (freshman and sophomore level courses) will be accepted as equivalent if they are being transferred from regionally accredited institutions. Courses in advanced business and economics will only be considered equivalent if they are from another business school accredited by the International Association for Management Education (AACSB), were taken within the past four years, and were taken as a junior or senior class standing.   At least 50 percent of required business and economics courses must be completed at IPFW in order for a BSB degree to be awarded.

CORRESPONDENCE STUDY No more than 6 credits earned through correspondence study will be counted toward your undergraduate degree. Business or economics courses taken by correspondence will not apply to undergraduate business degrees. This refers to traditional correspondence courses only (not online courses).

IPFW General Education Requirements (53 credits)

Area I—Linguistic and Numerical Foundations Credits: 9

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
  (grade of C or better required)
- MA 15300 - Algebra and Trigonometry I Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society Credits: 6

Three credits from the coursers listed below and then three addittional credits in either PSY 120 or SOC S161.

- ANTH E105 - Culture and Society Cr. 3.
  OR
- ANTH L200 - Language and Culture Cr. 3.
  OR
- COM 30300 - Intercultural Communication Cr. 3.
  OR
- INTL I200 - Introduction to International Studies: Emerging Global Visions Cr. 3.
  OR
- PACS P200 - Introduction to Peace and Conflict Studies - Humanities Perspectives Cr. 3.
  OR
- PSY 33500 - Stereotyping and Prejudice Cr. 3.
  OR
- SPEA E162 - Environment and People Cr. 3.

Psy 120 / Soc S161

- PSY 12000 - Elementary Psychology Cr. 3.
  OR
- SOC S161 - Principles of Sociology Cr. 3.

Area IV—Humanistic Thought Credits: 6

- Additional credits in approved Area IV courses: 3
- PHIL 11100 - Ethics Cr. 3.

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses

SBMS Requirements

- Additional credits in general education courses excluding business, economics, and OLS courses Credits: 8
- COM 32300 - Business and Professional Speaking Cr. 3.
- ENG W233 - Intermediate Expository Writing Cr. 3.
  (grade of C or better required)
- ENG W331 - Business and Administrative Writing Cr. 3.
- MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.
  (if not used in Area I)

Core and Concentration (Major) Courses (46 credits)

Business Principles (16 credits)

- BUS J100 - Introduction to College and Business Careers Cr. 1.
- BUS A201 - Principles of Financial Accounting Cr. 3.
- BUS A202 - Principles of Managerial Accounting Cr. 3.
- BUS K200 - Computer Literacy Concepts for Business Cr. 0.
- BUS K211 - Spreadsheets for Business Cr. 1.
- BUS K212 - Introduction to Database Management Cr. 1.
- BUS K213 - Internet Literacy for Business Cr. 1.
- BUS L200 - Elements of Business Law Cr. 3.
- BUS W204 - Social, Legal, and Ethical Implications of Business Decisions Cr. 3.
- BUS J200 - Business Degree Seminar Cr. 0.

Economics Principles (9 credits)

- ECON E201 - Introduction to Microeconomics Cr. 3.
- ECON E202 - Introduction to Macroeconomics Cr. 3.
- ECON E270 - Introduction to Statistical Theory in Economics and Business I Cr. 3.

Management Processes (15 credits)

- BUS F301 - Financial Management Cr. 3.
- BUS K321 - Management of Information Technology Cr. 3.
- BUS M301 - Marketing Management in a Competitive Environment Cr. 3.
- BUS P301 - Managing Operations in a Competitive Environment Cr. 3.
- BUS Z302 - Management of Organizations and People Cr. 3

Management Policy and Strategy (6 credits)

- BUS J401 - Policy and Strategy Cr. 3.
- BUS W430 - Organizations and Organizational Change Cr. 3.

Area Concentration Credits: 12–24

12–24 credits in an Area Concentration: Upon admission to the B.S.B. program, you will select one of the following five concentrations, While you may change your concentration at any time during your degree program, changes made after your junior year may result in exceeding the 123 credits required to complete your degree. Specific concentration requirements are listed below.

General Elective Courses Credits: 0–12

0–12 sufficient credits from either business or nonbusiness courses, excluding organizational leadership and supervision courses, to complement your professional and education objective and bring your degree total to at least 123 credits.

Total Credits: 123

Chemistry (B.S.)

Program: B.S.
Department of Chemistry
College of Arts and Sciences

Science Building 496 ~ 260-481-6289 ~ www.ipfw.edu/chem

The student learning outcomes for the degree are as follows:

- **Mathematical and quantitative reasoning**

Students will be able to analyze, synthesize, and comprehend experimental and computational data describing the physical universe. This skill requires knowledge of mathematical and statistical techniques that can be used analytically.

- **Classical and instrumental laboratory techniques: both analytical and synthetic**

Students will learn precise measuring techniques as well as careful and meticulous record-keeping. They will master the use of variety of modern instruments and will become proficient in fundamental organic synthetic methods.

- **Individual and collaborative problem-solving**

The student will develop independent problem-solving skills as well as the ability to work collaboratively in a team environment on complex chemical systems.

- **Chemical literature**

The student will learn basic tools and concepts for efficient use of chemical literature, including multiple computerized databases. The student will also be expected to analyze sources for relevance and authority and to learn how scientific writings are constructed according to style.

- **Summary of key concepts**

In the teaching of Chemistry from the point-of-view of various sub-disciplines, the following concepts form the core course content. It should be noted that courses offered by the IPFW Department of Chemistry will include, but are not simply limited to, the following points of emphasis:

-

  Analytical Chemistry

- -- Analytical methods (classical and instrumental)
- -- Sensitivity and detection limits
- -- Statistical treatment of data

- Biochemistry (for premedicine and predental options)
-- Structure, metabolic relationships, and regulation of biomolecules

- General Chemistry
-- Semi-quantitative microscopic model of the physical universe based on macroscopic observations
-- Terminology
-- Periodic relationships
-- Elementary computational skills
-- Introductory laboratory skills

- Inorganic Chemistry
-- Chemical bonding and structure
-- Reactivity , reaction mechanisms, and properties
-- Solid state and material science
-- Organometallic chemistry
-- Spectroscopic determination of structure

- Organic Chemistry
-- Chemical bonding and structure including valence bond and molecular orbital theories
-- Reavtivity, reaction mechanisms, and properties of the important functional groups
-- Synthesis
-- Spectroscopic determination of structure
-- Material science and bio-organic chemistry

- Physical Chemistry

   -- Mathematical and physical principles that underlie modern Chemistry
   -- Detailed understanding of the modern microscopic model of the universe
   -- The principal topic areas are:
1. Quantum Chemistry
2. Thermodynamics
3. Statistical mechanics
4. Spectroscopy
5. Kinetics

The Bachelor of Science with a major in chemistry program is appropriate for premedical and predental students and as preparation for other careers. With appropriate electives and further education, this program allows you to combine chemistry with other fields of study that support careers such as geochemist, computer scientist, biologist, science librarian, science writer, chemical salesperson, patent attorney, industrial chemist, or environmental chemist.

To earn the B.S. with a major in chemistry, in addition to satisfying the requirements of IPFW (see Part 8) and the College of Arts and Sciences (see Part 4), you must complete the following courses with a cumulative GPA of 2.00 or higher in all CHM courses numbered 300 and above:

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- MA 16500 - Analytic Geometry and Calculus I Cr. 4.

(credits included in Supporting Courses, below)

One of the following Credits: 3

- ENG W131 - Elementary Composition I Cr. 3.
- ENG W140 - Elementary Composition Honors Cr. 3.

Area II—Natural and Physical Sciences

- CHM 11500 - General Chemistry Cr. 4.
  (credits included in Major Courses, below)
- PHYS 15200 - Mechanics Cr. 5.
  (credits included in Supporting Courses, below)

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (not in CHM) Credits: 3

See Part 2 General Education Requirements for approved courses

College of Arts and Sciences Requirements

English Writing

- ENG W233 - Intermediate Expository Writing Cr. 3.

Foreign Language

- Credits in a modern foreign language Credits: 8

Core and Concentration (Major) Courses

- CHM 11500 - General Chemistry Cr. 4.
- CHM 11600 - General Chemistry Cr. 4.
- CHM 21800 - Introduction to Inorganic Chemistry Cr. 3.

- CHM 26100 - Organic Chemistry Cr. 3.
- CHM 26200 - Organic Chemistry Cr. 3.
- CHM 26500 - Organic Chemistry Laboratory Cr. 2.
- CHM 26600 - Organic Chemistry Laboratory Cr. 2.
- CHM 28000 - Chemical Literature Cr. 1.
- CHM 32100 - Analytical Chemistry I Cr. 4.
- CHM 34200 - Inorganic Chemistry Cr. 3.
- CHM 37600 - Physical Chemistry Laboratory Cr. 2.
- CHM 38300 - Physical Chemistry Cr. 4.
- CHM 38400 - Physical Chemistry Cr. 2.
- CHM 42400 - Analytical Chemistry II Cr. 4.
  Not required for premedicine, predental, physical science teaching or chemistry teaching certification options.

One of the following Credits: 1

- CHM 49500 - Seminar in Chemistry Cr. 1.
- CHM 49600 - Advances in Chemistry I Cr. 0.
- CHM 49700 - Advances in Chemistry II Cr. 1.

Supporting Courses

- Credits in CS 106, 160, or 210, or equivalent Credits: 3
- MA 16500 - Analytic Geometry and Calculus I Cr. 4.
- MA 16600 - Analytic Geometry and Calculus II Cr. 4.
- MA 26100 - Multivariate Calculus Cr. 4.
- PHYS 15200 - Mechanics Cr. 5.
- PHYS 25100 - Heat, Electricity, and Optics Cr. 5.

Free Electives

- Sufficient additional credits to bring the total to 124.

Total Credits: 124

Premedicine Option

In addition to the requirements for the B.S. with a major in chemistry, students pursuing the premedicine option must take the following courses:

- CHM 53300 - Introductory Biochemistry Cr. 3.
- CHM 53400 - Introductory Biochemistry Cr. 3.

One of the following sequences Credits: 8

- BIOL 10800 - Biology of Plants Cr. 4.

- BIOL 10900 - Biology of Animals Cr. 4.
  or
- BIOL 11700 - Principles of Ecology and Evolution Cr. 4.
- BIOL 11900 - Principles of Structure and Function Cr. 4.

Additional Credits: 14

Predental Option

In addition to the requirements for the B.S. with a major in chemistry, students pursuing the predental option must take the following courses:

- CHM 53300 - Introductory Biochemistry Cr. 3.
- PSY 12000 - Elementary Psychology Cr. 3.

One of the following sequences Credits: 8

- BIOL 10800 - Biology of Plants Cr. 4.
- BIOL 10900 - Biology of Animals Cr. 4.
  or
- BIOL 11700 - Principles of Ecology and Evolution Cr. 4.
- BIOL 11900 - Principles of Structure and Function Cr. 4.

One of the following Credits: 4

- BIOL 21500 - Basic Human Anatomy Cr. 4.
- BIOL 31500 - Developmental Anatomy Cr. 4.

One of the following Credits: 4

- BIOL 21600 - Basic Mammalian Physiology Cr. 4.

Additional Credits: 20

Chemistry (B.S.C.)

Program: B.S.C.
Department of Chemistry
College of Arts and Sciences

Science Building 496 ~ 260-481-6289 ~ www.ipfw.edu/chem

The student learning outcomes for the degree are as follows:

- **Mathematical and quantitative reasoning**

The student will be able to analyze, synthesize, and comprehend experimental and computational data describing the physical universe. This skill requires knowledge of mathematical and statistical techniques that can be used analytically and computationally.

- **Classical and instrumental laboratory techniques: both analytical and synthetic**

Students will learn precise measuring techniques as well as careful and meticulous record-keeping. They will master the use of variety of modern instruments and will become proficient in fundamental organic synthetic methods.

- **Individual and collaborative problem-solving**

The student will develop independent problem-solving skills as well as the ability to work collaboratively in a team environment on complex chemical systems.

-

Chemical literature

The student will learn basic tools and concepts for efficient use of chemical literature, including multiple computerized databases. The student will also be expected to analyze sources for relevance and authority and to learn how scientific writings are constructed according to style.

- **Summary of key concepts**

In the teaching of Chemistry from the point-of-view of various sub-disciplines, the following concepts form the core course content. It should be noted that courses offered by the IPFW Department of Chemistry will include, but are not simply limited to, the following points of emphasis:

- Analytical Chemistry
-- Analytical methods (classical and instrumental)
-- Sensitivity and detection limits
-- Statistical treatment of data

- Biochemistry
-- Structure, metabolic relationships, and regulation of biomolecules

- General Chemistry
-- Semi-quantitative microscopic model of the physical universe based on macroscopic observations
-- Terminology
-- Periodic relationships
-- Elementary computational skills
-- Introductory laboratory skills

- Inorganic Chemistry
-- Chemical bonding and structure
-- Reactivity, reaction mechanisms, and properties
-- Solid state and material science
-- Organometallic chemistry
-- Spectroscopic determination of structure

- Organic Chemistry
-- Chemical bonding and structure including valence bond and molecular orbital theories
-- Reavtivity, reaction mechanisms, and properties of the important functional groups
-- Synthesis
-- Spectroscopic determination of structure
-- Material science and bio-organic chemistry

- Physical Chemistry

    -- Mathematical and physical principles that underlie modern Chemistry
    -- Detailed understanding of the modern microscopic model of the universe
    -- The principal topic areas are:
1. Quantum Chemistry
2. Thermodynamics
3. Statistical mechanics
4. Spectroscopy
5. Kinetics

The Bachelor of Science in Chemistry (B.S.C.) program helps you prepare for graduate study in chemistry and chemistry-related careers in industry or government. Providing the best preparation for any career involving chemical research, this program fulfills recommendations of the Committee on Professional Training of the American Chemical Society, and graduates are certified to the ACS as having fulfilled its requirements.

To earn the B.S.C., you must fulfill all requirements for the B.S. with a major in chemistry (listed above) and complete the additional courses listed below.

Degree Requirements

- CHM 34300 - Inorganic Chemistry Laboratory Cr. 1.
- CHM 53300 - Introductory Biochemistry Cr. 3.
- MA 35100 - Elementary Linear Algebra Cr. 3.
- MA 36300 - Differential Equations Cr. 3.
- PHYS 34200 - Modern Physics Cr. 3.
- PHYS 34300 - Modern Physics Laboratory Cr. 1.

Additional credits from the following Credits: 3

- CHM - courses numbered 300 and above
- CS 38400 - Numerical Analysis Cr. 3.
- PHYS 55000 - Introduction to Quantum Mechanics Cr. 3.
  or other departmentally approved advanced courses in chemical engineering, computer science; geochemistry, surface chemistry, mathematics, molecular biology, physics, and other allied fields

Additional Credits: 17

Biochemistry Option

The Bachelor of Science in Chemistry (B.S.C.) with biochemistry option helps you prepare for graduate study in biochemistry, and for biochemically oriented careers, particularly in the pharmaceutical and health industries. This program fulfills recommendations of the Committee on Professional Training of the American Chemical Society, and graduates are certified to the ACS as having fulfilled the requirements.

To earn the B.S.C. biochemistry option, you must fulfill all requirements for the B.S. with a major in chemistry (listed above) and complete the additional courses listed below.

- BIOL 11900 - Principles of Structure and Function Cr. 4.

- BIOL 21800 - Genetics and Molecular Biology Cr. 4.
- CHM 53300 - Introductory Biochemistry Cr. 3.
- CHM 53400 - Introductory Biochemistry Cr. 3.
- CHM 53500 - Biochemistry Laboratory Cr. 1.

The following is highly recommended:

- CHM 49900 - Special Assignments Cr. 1-5

Additional Credits: 16-20

Chemistry with Chemistry Teaching Certification (B.S.)

Program: B.S.
Department of Chemistry
College of Arts and Sciences

Science Building 496 ~ 260-481-6289 ~ www.ipfw.edu/chem

 The student learning outcomes for the degree are as follows:

The student understands the central concepts, tools of inquiry, and the structure of discipline he or she will teach and can create learning experiences that make these aspects of the subject matter meaningful for his or her students. This includes, but is not limited to:

- Mathematical and quantitative reasoning
- The student will be able to analyze, synthesize, and comprehend experimental and computational data describing the physical universe. This skill requires knowledge of mathematical and statistical techniques that can be used analytically.
- Classical and instrumental laboratory techniques: both analytical and synthetic

Students will learn precise measuring techniques as well as careful and meticulous record-keeping. They will master the use of variety of modern instruments and will become proficient in fundamental organic synthetic methods.

- Individual and collaborative problem-solving

The student will develop independent problem-solving skills as well as the ability to work collaboratively in a team environment on complex chemical systems.

- Chemical literature

  The student will learn basic tools and concepts for efficient use of chemical literature, including multiple computerized databases. The student will also be expected to analyze sources for relevance and authority and to learn how scientific writings are constructed according to style.

- Summary of key concepts

In the teaching of Chemistry from the point-of-view of various sub-disciplines, the following concepts form the core course content. It should be noted that courses offered by the IPFW Department of Chemistry will include, but are not simply limited to, the following points of emphasis:

- Analytical Chemistry

-- Analytical methods (classical and instrumental)
-- Sensitivity and detection limits
-- Statistical treatment of data

- General Chemistry

-- Semi-quantitative microscopic model of the physical universe based on macroscopic observations
-- Terminology
-- Periodic relationships
-- Elementary computational skills
-- Introductory laboratory skills

- Inorganic Chemistry

-- Chemical bonding and structure
-- Reactivity, reaction mechanisms, and properties
-- Solid state and material science
-- Organometallic chemistry
-- Spectroscopic determination of structure

- Organic Chemistry

-- Chemical bonding and structure including valence bond and molecular orbital theories
-- Reavtivity, reaction mechanisms, and properties of the important functional groups
-- Synthesis
-- Spectroscopic determination of structure
-- Material science and bio-organic chemistry

- Physical Chemistry

  -- Mathematical and physical principles that underlie modern Chemistry
  -- Detailed understanding of the modern microscopic model of the universe
  -- The principal topic areas are:

    o Quantum Chemistry

    o The student understands how children learn and develop, and can provide learning opportunities that support their intellectual, social and personal development.

    o The student understands how students differ in their approaches to learning and creates instructional opportunities that are adapted to diverse learners.

    o The student understands and uses a variety of instructional strategies to encourage students' development of critical thinking, problem solving, and performance skills.

    o The student uses an understanding of individual and group motivation and behavior to create a learning environment that encourages positive social interaction and active engagement in learning and self-motivation.

    o The student uses knowledge of effective verbal, nonverbal, and media communication techniques to foster active inquiry, collaboration, and supportive interaction in the classroom.

    o The student plans instruction based upon knowledge of subject matter, the community and curriculum goals.

- The student understands and uses formal and informal assessment strategies to evaluate and ensure the continuous intellectual, social and physical development of the learner.

- The student is a reflective practitioner who continually evaluates the effects of his or her choices and actions on others (students, parents, and other professionals in the learning community) and who actively seeks out opportunities to grow professionally.

- The student fosters relationships with school colleagues, parents, and agencies in the larger community to support students' learning and well-being.

To earn the B.S. with a major in chemistry teaching certification, you must fulfill all requirements (listed earlier) for the B.S. with a major in chemistry (except for foreign language, and you must complete ENG W233 as your writing requirement) and satisfactorily complete the courses listed below.

The School of Education requires that you first complete EDUA F300, EDUC W200/M101, and EDUC K201 before you are permitted to take professional education courses. Prior to your junior year, you must successfully complete the Pre-Professional Skills Test (PPST) before admission to the teacher education program. The PRAXIS II Specialty Area Exam must be completed before or during the student-teaching semester, normally in your senior year.

To be eligible to apply for teacher licensure, you must earn a GPA of 2.00 or higher in each general education area. You should work closely with your advisor to ensure completion of general education requirements for teacher licensing. You must also earn a cumulative GPA of 2.50 or higher in your major area and the professional education courses with an overall GPA of 2.50 or higher. Each professional education course must be completed with a grade of C or better.

School of Education Requirements

Prior to being admitted to the teacher education program, you must complete an initial set of requirements.

Initial Requirements

- PPST
- EDUA F300 - Topical Exploration in Education Cr. 1-3.
  Course Title: Invitation to Teaching
  Credits: 2
- EDUC K201 - Schools, Society, and Exceptionality Cr. 1-3.
  Credits: 1
- EDUC M101 - Laboratory/Field Experience Cr. 0-3.
  Credits: 0
- EDUC W200 - Using Computers for Education Cr. 1.
  Credits: 1
  (A grade of A or B is required)

Block 1: Teacher Education (prerequisite: Initial Requirements)

- EDUC H340 - Education and American Culture Cr. 2-3.
  Credits: 3
- EDUC K206 - Teaching Methods for Students with Special Needs Cr. 1-3.
  Credits: 3
- EDUC M201 - Laboratory/Field Experience Cr. 0-3.
  Credits: 0

- EDUC P250 - General Educational Psychology Cr. 1-4.
  Credits: 3

Block 2: Professional Education (prerequisite: Block 1)

- EDUC M301 - Laboratory/Field Experience Cr. 0-3.
- EDUC M401 - Laboratory/Field Experience Cr.0-3.
  Credits: 0
- EDUC P253 - Educational Psychology for Secondary Teachers Cr. 1-4.
  Credits: 3
- EDUC X401 - Critical Reading in the Content Area Cr. 1-3.
  Credits: 3
- EDUC Q400 - Man and Environment: Instructional Methods Cr. 3.

Student Teaching

- EDUC M501 - Lab/Field Experience Cr. 0-3.
  Portfolio Cr. 0.
- EDUC M470 - Practicum Cr. 3-8.
  (recommended for Middle School Endorsement area)
- EDUC M480 - Student Teaching in the Secondary School Cr. 1-16.
  Credits: 12

Additional Credits: 37

Civil Engineering (B.S.C.E.)

Program: B.S.C.E.
Department of Engineering
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 327 ~ 260-481-6362 ~ www.engr.ipfw.edu

The student learning outcomes for the degree are as follows:

- Graduates will demonstrate basic knowledge in chemistry, mathematics, physics, and engineering
- Graduates will demonstrate the ability to identify, formulate, and solve civil engineering problems
- Graduates will demonstrate the ability to design and conduct experiments, interpret and analyze data, and report results
- Graduates will demonstrate the ability to design a civil engineering system, component, or process that meets desired specifications and requirements
- Graduates will demonstrate the ability to function on engineering and science laboratory teams as well as on multidisciplinary design teams
- Graduates will use modern engineering software tools and equipment to analyze civil engineering problems and design civil engineering systems
- Graduates will demonstrate an understanding of the professional and ethical responsibility

- Graduates will be able to communicate effectively in both verbal and written forms
- Graduates will have the confidence for self education and the ability for lifelong learning. They will have a broad education to understand the impact of engineering on society and demonstrate awareness of contemporary issues

Civil engineers design, construct, manage, and improve the built environment that is all around us. They are involved in all aspects of what makes a community work: the roads, the public transit systems, the freight transit systems, the buildings, the drinking water system, and the waste water/storm water system. They naturally get involved with city or organization planning. IPFW offers state of-the-art knowledge in all areas of civil engineering such as structures, transportation, geotechnical, construction management, and environmental engineering.

Degree Requirements

To earn the B.S.C.E. at IPFW, you must satisfy the requirements of IPFW (see Part 8) and the College of Engineering, Technology, and Computer Science (see Part 4) ; you must also complete the following courses:

IPFW General Education Requirements Credits: 36

Area I-Linguistic and Numerical Foundations Credits: 10

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
- MA 16500 - Analytic Geometry and Calculus I Cr. 4.

Area II-Natural and Physical Sciences Credits: 9

- CHM 11500 - General Chemistry Cr. 4.
- PHYS 15200 - Mechanics Cr. 5.

Area III-The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

with the exception of IET 105
- ECON E201 - Introduction to Microeconomics Cr. 3.

Area IV-Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V-Creative and Artistic Expression Credits: 2

- ENGR 12000 - Graphical Communications and Spatial Analysis Cr. 2.

AREA VI-Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses

with the excepiton of:

- MA 31400 - Introduction to Mathematical Modeling Cr. 3.
- PHYS 32500 - Scientific Computing Cr. 3.
- STAT 34000 - Elementary Statistical Methods II Cr. 3.

Freshman Engineering Credits: 6

- ENGR 10100 - Introduction to Engineering Cr. 1.
- ENGR 12100 - Computer Tools for Engineers Cr. 2.
- ENGR 19900 - Introduction to Engineering Design Cr. 3.

Core and Concentration (Major) Course Credits: 47

- CE 21000 - Introduction to Geomatics Cr. 3.
- CE 25000 - Statics Cr. 3.
- CE 25100 - Dynamics Cr. 3.
- CE 25200 - Strength of Materials Cr. 3.
- CE 31500 - Civil Engineering Materials Cr. 3.
- CE 31600 - Civil Engineering Materials Laboratory Cr. 1.
- CE 31800 - Fluid Mechanics Cr. 3.
- CE 31900 - Fluid Mechanics Laboratory Cr. 1.
- CE 33000 - Construction Management Cr. 3.
- CE 34500 - Transportation Engineering Cr. 3.
- CE 36500 - Environmental Engineering Cr. 3.
- CE 37500 - Structural Analysis Cr. 3.
- CE 37600 - Design of Concrete Structures Cr. 3.
- CE 38000 - Soil Mechanics Cr. 3.

Required Engineering and Mechanical Engineering Courses Credits: 5

- ENGR 22100 - C and C++ Programming for Engineers Cr. 2.
- ME 20000 - Thermodynamics I Cr. 3.

Mathematics and Science Requirements Credits: 22

- MA 16600 - Analytic Geometry and Calculus II Cr. 4.
- MA 26100 - Multivariate Calculus Cr. 4.
- MA 35100 - Elementary Linear Algebra Cr. 3.
- MA 36300 - Differential Equations Cr. 3.
- PHYS 25100 - Heat, Electricity, and Optics Cr. 5.
- STAT 51100 - Statistical Methods Cr. 3.

Technical Elective Courses Credits: 12

Structural Courses

- CE 47500 - Design of Steel Structures Cr. 3.
- CE 48000 - Finite Element Analysis Cr. 3.
- CE 57000 - Advanced Structural Mechanics Cr. 3.

Environmental and Water Resources Courses

- GEOL G451 - Principles of Hydrogeology Cr. 3.
- BIOL 34900 - Environmental Science Cr. 3.

Construction Management and Transporation Courses

- CE 45100 - Traffic Engineering Cr. 3.

Science Courses

- GEOL G300 - Environmental and Urban Geology Cr. 3.
- GEOL G305 - Geologic Fundamentals in Earth Science Cr. 3-5.
- GEOL G406 - Introduction to Geochemistry Cr. 3.
- BIOL 30400 - Major Ideas in Biology Cr. 3.

Special Topics

- CE 49000 - Selected Topics in Civil Engineering Cr. 1-6.
- CS 38400 - Numerical Analysis Cr. 3.
- SE 52000 - Engineering Economics Cr. 3.
- MA 51000 - Vector Calculus Cr. 3.
- MA 57500 - Graph Theory Cr. 3.
- STAT 51200 - Applied Regression Analysis Cr. 3.
  A maximum of two courses can be taken from non-civil engineering courses. One technical elective shall be taken from the Science Group.

Total Credits: 128

GPA Requirement

All engineering and technical elective courses must have a combined minimum GPA of 2.0.

Communication Sciences and Disorders (B.S.)

Program: B.S.
Communication Sciences and Disorders
College of Arts and Sciences

The student learning outcomes for the degree are as follows:

- Students will acquire basic knowledge of the normal nature and development of speech.
- Students will acquire basic knowledge of language and hearing.
- Students will acquire basic knowledge of assessment, treatment and prevention of speech, language and hearing disorders.
- Students will demonstrate basic clinical skills of assessment.
- Students will demonstrate basic skill in the design and implementation of appropriate treatment plans.
- Students will acquire oral and written communication abilities and interpersonal skills needed for the assessment and treatment of speech, language and hearing disorders.

This preprofessional degree helps you prepare to pursue the master's degree in speech-language pathology or audiology and the following professional credentials: the Indiana Schools Standard Services-Specialist License, the license from the Indiana Speech-Language Pathology and Audiology Board, and the Certificate of Clinical Competence from the American Speech- Language-Hearing Association.With full academic preparation, including a master's degree in speech-language pathology or audiology, you may begin human-service careers working with children, adults, and/or older persons who have speech, language, or hearing disorders. You will offer professional assistance to enhance our most distinctive human ability — communication.

The curriculum offers courses and practical experiences that prepare you to work with communicatively disabled individuals in such settings as schools, hospitals, agencies, rehabilitation centers, clinics, and private practices. Beginning practicum courses prepare the student to work with clients. These practicum courses offer services through the speech-language clinic to the campus and surrounding community.

To earn the B.S. with a major in speech and hearing therapy, you must fulfill the requirements of IPFW (see Part 8) and the College of Arts and Sciences (see Part 4) in addition to the following requirements:

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

- COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of the following:

- ENG W131 - Elementary Composition I Cr. 3.
- ENG W140 - Elementary Composition Honors Cr. 3.

One of the following:

- MA 15300 - Algebra and Trigonometry I Cr. 3.
- MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
- STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

- BIOL 20300 - Human Anatomy and Physiology Cr. 4.
  required

Area III—The Individual, Culture, and Society Credits: 6

- LING L103 - Introduction to the Study of Language Cr. 3.
  required; select one course from
- PSY 12000 - Elementary Psychology Cr. 3.
  or
- SOC S161 - Principles of Sociology Cr. 3.
  or
- SOC S163 - Social Problems Cr. 3.

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

- PHIL 11100 - Ethics Cr. 3.
  or
- PHIL 12000 - Critical Thinking Cr. 3.
  recommended

Area V—Creative and Artistic Expression Credits: 3

Select one:

- ENG W103 - Introductory Creative Writing Cr. 3.
- JOUR J210 - Visual Communication Cr. 3.
- MUS L153 - Introduction to Music Therapy Cr. 3.
  recommended

Area VI—Inquiry and Analysis (not in AUS) Credits: 3

See Part 2 General Education Requirements for approved courses

College of Arts and Sciences Requirements

English Writing Credits: 3

- ENG W233 - Intermediate Expository Writing Cr. 3.
  (or other approved writing course)

Foreign Language Credits: 8

- *Foreign Language (111 and 112)*

Core and Concentration (Major) Courses

- CSD 11500 - Introduction to Communicative Disorders Cr. 3.
- CSD 30200 - Acoustic Bases of Speech and Hearing Cr. 3.
- CSD 30400 - Anatomy and Physiology of the Speech and Hearing Mechanism Cr. 4.
- CSD 30600 - Introduction to Phonetics Cr. 3.
- CSD 30900 - Language Development Cr. 3.
- CSD 32100 - Introduction to Phonological Disorders in Children Cr. 3.
- CSD 41600 - Introduction to Assessment of Communication Disorders Cr. 3.
- CSD 42000 - Introduction to Developmental Speech and Language Disorders Cr. 3.
- CSD 46000 - Introduction to Assessment Audiology Cr. 4.

Credits from the following courses:

Students intending to pursue graduate studies are urged to select CSD 449 and should also consider completion of CSD 549. If 549 is not selected, then 590 should be the selection.

- CSD 18100 - First Course in American Sign Language Cr. 3.
- CSD 18200 - Second Course in American Sign Language Cr. 3.
- CSD 39900 - Directed Study in Audiology and Speech Sciences Cr. 1-3.
- CSD 40500 - Augmentative and Computer Applications in Speech and Language Cr. 3
- CSD 43000 - Speech-Language Disorders in Healthcare Settings Cr. 3.
- CSD 44900 - Introduction to Clinical Practice in Speech-Language Pathology Cr. 2-3.
- CSD 54900 - Clinical Practice in Speech/Language Pathology I Cr. 1-8.
- CSD 55000 - Aural Rehabilitation for Adults Cr. 4.
- CSD 55100 - Aural Rehabilitation for Children Cr. 3.
- CSD 59000 - Directed Study of Special Problems Cr. 1-6.

General Elective Courses

You may wish to consider elective courses that fulfill requirements for a minor that supports preparation of CSD majors. Sufficient additional credits to bring the total to 124. Recommended:

- BIOL 20400 - Human Anatomy and Physiology Cr. 4.
- COM 30300 - Intercultural Communication Cr. 3.
- EDUC K201 - Schools, Society, and Exceptionality Cr. 1-3.
- EDUC K206 - Teaching Methods for Students with Special Needs Cr. 1-3.
- PHIL 31200 - Medical Ethics Cr. 3.
- PSY 12000 - Elementary Psychology Cr. 3.
- PSY 23500 - Child Psychology Cr. 3.
- PSY 35000 - Abnormal Psychology Cr. 3.
- SOC S161 - Principles of Sociology Cr. 3.
- SOC S163 - Social Problems Cr. 3.

Total Credits: 124

Computer Engineering (B.S.Comp.E.)

Program: B.S.Comp.E.
Department of Engineering
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 327 ~ 260-481-6362 ~ www.engr.ipfw.edu

The student learning outcomes for the computer engineering degree are as follows:

- Graduates will demonstrate basic knowledge in chemistry, mathematics, physics, and engineering
- Graduates will demonstrate the ability to identify, formulate, and solve computer engineering problems
- Graduates will demonstrate the ability to design, perform, and simulate experiments, to analyze data, and to interpret results
- Graduates will demonstrate the ability to design a computer system, component, or process that meets desired specifications and requirements
- Graduates will demonstrate the ability to function on engineering and science laboratory teams as well as on multidisciplinary design teams
- Graduates will use modern engineering tools to analyze computer engineering problems
- Graduates will demonstrate an understanding of professional and ethical responsibility
- Graduates will communicate effectively in both verbal and written forms
- Graduates will have the confidence for self education and the ability for lifelong learning. They will have a broad education to understand the impact of engineering on society and demonstrate awareness of contemporary issues

Computer engineers design, develop, and manage systems that process, store, and transmit information. These systems include personal computers, workstations, mainframe computers, computer networks, and all of their various components. Computer engineers are particularly involved in the design and development of "embedded" computers used in aircraft, automobiles, communication systems, biomedical instruments, industrial robots, and household appliances. Designing these systems raises both hardware and software issues; a computer engineer typically has the hardware background of an electrical engineer and the software background of a computer scientist. Computer engineers can choose to specialize in areas such as very large scale integrated (VLSI) systems design, embedded systems, electronic design automation and networks, and communications. IPFW offers state of-the-art knowledge in all areas of computer engineering such as computer architecture, software engineering, and robotics. In addition to traditional classes, our curriculum includes an innovative set of common first-year courses, integrated design experiences, hands-on laboratories, and a two-semester capstone project in which students design, build, and test a device.

Degree Requirements

To earn the B.S.Comp.E. at IPFW, you must satisfy the requirements of IPFW (see Part 8) and the College of Engineering, Technology, and Computer Science (see Part 4); you must also complete the following courses:

IPFW General Education Requirements Credits: 36

Area I—Linguistic and Numerical Foundations Credits: 10

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
- MA 16500 - Analytic Geometry and Calculus I Cr. 4.

Area II—Natural and Physical Sciences Credits: 9

- CHM 11500 - General Chemistry Cr. 4.
- PHYS 15200 - Mechanics Cr. 5.

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

with the exception of IET 105

- ECON E201 - Introduction to Microeconomics Cr. 3.

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 2

- ENGR 12000 - Graphical Communications and Spatial Analysis Cr. 2.

Area VI—Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses

with the exception of:

- MA 31400 - Introduction to Mathematical Modeling Cr. 3.
- PHYS 32500 - Scientific Computing Cr. 3.
- STAT 34000 - Elementary Statistical Methods II Cr. 3.

Freshman Engineering Credits: 6

- ENGR 10100 - Introduction to Engineering Cr. 1.
- ENGR 12100 - Computer Tools for Engineers Cr. 2.
- ENGR 19900 - Introduction to Engineering Design Cr. 3.

Core and Concentration (Major) Courses Credits: 49

- ECE 20100 - Linear Circuit Analysis I Cr. 3.
- ECE 20200 - Linear Circuit Analysis II Cr. 3.
- ECE 27000 - Introduction to Digital System Design Cr. 4.
- ECE 29300 - Measurements and Instrumentation Cr. 2.
- ECE 30100 - Signals and Systems Cr. 3.
- ECE 30200 - Probabilistic Methods in Electrical Engineering Cr. 3.
- ECE 35800 - Introduction to VHDL Programing Cr. 3.
- ECE 36200 - Microprocessor Systems and Interfacing Cr. 4.
- ECE 36800 - Data Structures Cr. 3.

- ECE 38700 - Electronics and System Engineering Through Robotics Cr. 3.
- ECE 38800 - Electronics and System Engineering Through Robotics Lab Cr. 1
- ECE 40500 - Senior Engineering Design I Cr. 3.
- ECE 40600 - Senior Engineering Design II Cr. 3.
- ECE 43700 - Computer Design and Prototyping Cr. 4.
- ECE 48500 - Embedded Real-Time Operating Systems Cr. 4.
- ENGR 22100 - C and C++ Programming for Engineers Cr. 2.
- ENGR 22200 - Object Oriented Programming Cr. 1.

Required Mechanical Engineering Courses Credits: 3

- ME 25300 - Statics and Dynamics Cr. 3.

Mathematics and Science Requirements Credits: 22

- MA 16600 - Analytic Geometry and Calculus II Cr. 4.
- MA 26100 - Multivariate Calculus Cr. 4.
- MA 27500 - Intermediate Discrete Math Cr. 3.
- MA 35100 - Elementary Linear Algebra Cr. 3.
- MA 36300 - Differential Equations Cr. 3.
- PHYS 25100 - Heat, Electricity, and Optics Cr. 5.

Technical Elective Courses Credits: 12

Computer Engineering Electives

- CS 32100 - Introduction to Computer Graphics Cr. 3.
- CS 36000 - Software Engineering Cr. 3.
- CS 38400 - Numerical Analysis Cr. 3.
- ECE 37300 - Numerical Methods for Engineers Cr. 3.
- ECE 42800 - Modern Communication Systems Cr. 3.
- ECE 46500 - Embedded Microprocessors Cr. 3.
- ECE 54700 - Introduction to Computer Communication Networks Cr. 3.
- ECE 56500 - Computer Architecture Cr. 3.
  An ECE 495/595 course can be included in the Computer Engineering Electives with approval. A course cannot count towards both an undergraduate and graduate degree.

Engineering Electives

- ECE 25500 - Introduction to Electronic Analysis and Design Cr. 3.
- ECE 31100 - Electric and Magnetic Fields Cr. 3.
- ECE 33300 - Automatic Control Systems Cr. 3.
- ECE 43600 - Digital Signal Processing Cr. 3.
- ECE 48300 - Digital Control Systems - Analysis and Design Cr. 3.
- ECE 54300 - Wireless Communication Networks Cr. 3.

Math and Science Electives

- MA 41700 - Mathematical Programming Cr. 3.
- MA 41800 - Computations Laboratory for MA 417 Cr. 1.
- PHYS 32200 - Optics Cr. 3.
- PHYS 34200 - Modern Physics Cr. 3.
- PHYS 34500 - Optics Laboratory I Cr. 1.
- PHYS 55000 - Introduction to Quantum Mechanics Cr. 3.

Total Credits: 128

GPA Requirement

All engineering & technical elective courses must have a combined minimum GPA of 2.0

Computer Engineering Technology (B.S.)

Program: B.S.
Department of Computer and Electrical Engineering Technology & Information Systems and Technology
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 205 ~ 260-481-6338 ~ www.ceit.ipfw.edu

The student learning objectives for the degree are:

Graduates will have:

- An appropriate mastery of the knowledge, techniques, skills and modern tools of computer engineering technology.
- An ability to apply current knowledge and adapt to emerging applications of mathematics, science, engineering and technology.
- An ability to conduct, analyze and interpret experiments and apply experimental results to improve processes.
- An ability to apply creativity in the design of systems, components or processes appropriate to program objectives.
- An an ability to function effectively on teams.
- An ability to identify, analyze and solve technical problems.
- An ability to communicate effectively in writing, and in oral presentation.
- A recognition of the need for, and an ability to engage in lifelong learning.
- The knowledge of and respect for diverse backgrounds and contemporary societal and global issues concerning the profession.
- A commitment to quality, timeliness, and continuous improvement.

The B.S. in CPET program focuses on applications and application packages in areas of information technology and electronics to support information technology. This can be contrasted with Computer Engineering programs where the focus is on the theory and design of computer-based systems and Computer Science with a focus on computer program design. A graduate of this program will have the training and skills encompassed by a combination of CPET, ECET, CS, and supporting science, mathematics, general education, and other technical areas. CPET courses generally focus

on software strongly related to hardware, while ECET courses focus on hardware and related software. A strong feature of the CPET program is the adaptability of the curriculum to concentrate on technical applications similar to those being developed and implemented for use in industry such as: industrial networking, web-based control, electronic devices, web services, and other aspects of enterprise networking. During the latter portion of the B.S. in CPET program, the student also qualifies for an A.S. in EET.

The curriculum described below provides a technical education in the area of industrial and enterprise computer networking. The core provides the student with basic instruction in analog and digital circuit analysis with hands-on laboratory work. It also introduces the fundamentals of computer systems, programming, and applications using word processors, spreadsheets, and highand low-level computer languages. The specialization area provides in-depth knowledge about networking and the requisite hardware and software. Other required courses provide mathematical and communication skills, and sufficient knowledge of the industrial environment to perform effectively in the workplace. the B.S. also enables you to pursue advanced degrees in management, engineering, technology, or computer science.

The CEIT department also offers the Bachelor and Associate of Science with a major in electrical engineering technology and an Associate and Bachelor of Science with a major in information systems. In addition to the degrees, the department offers a minor in electronics, and minor in information systems and certificate programs in computer-controlled systems, electronic communications, power electronics systems, and computer networking.

To earn the degree, you must fulfill the requirements of IPFW (see Part 8) and of the College of Engineering, Technology, and Computer Science (see Part 4); and complete the following courses:

IPFW General Education Requirements

The courses listed below will meet the IPFW General Education Requirements required in the Bachelor of Science in computer engineering technology.

Area I—Linguistic and Numerical Foundations Credits: 9

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
  ENG W131 Grade C or above required.
- MA 15300 - Algebra and Trigonometry I Cr. 3.

Area II—Natural and Physical Sciences Credits: 7

- CHM 11100 - General Chemistry Cr. 3.
- PHYS 21800 - General Physics Cr. 4.

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

- IET 10500 - Industrial Management Cr. 3.

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis Credits: 6

- CPET 49000 - Senior Design Project I Cr. 1.
- CPET 49100 - Senior Design Project II Cr. 2.
- ENG W421 - Technical Writing Projects Cr. 1-3.
  Credits:3

Core and Concentration (Major) Courses

CPET 490 and CPET 491 also counted as CPET core courses.

- CPET 10100 - Electrical Circuits Cr. 4.
- CPET 18100 - Computer Operating Systems Basics Cr. 3.
- CPET 28100 - Local Area Networks and Management Cr. 3.
- CPET 35500 - Data Communications and Networking Cr. 4.
- CPET 36400 - Networking Security Cr. 3.
- CPET 47000 - Technology Project Management Cr. 3.
- CPET 49000 - Senior Design Project I Cr. 1.
- CPET 49100 - Senior Design Project II Cr. 2.
- ECET 11100 - Digital Circuits Cr. 4.
- ECET 11400 - Introduction to Visual Basic Cr. 3.
- ECET 14600 - Digital Circuits II Cr. 3.
- ECET 15200 - Electrical Circuits II Cr. 4.
- ECET 20400 - Analog Electronics II Cr. 4.
- ECET 20500 - Introduction to Microprocessors Cr. 4.
- ECET 26400 - C Programming Language Applications Cr. 3.
- ECET 29600 - Electronic System Fabrication Cr. 2-3.

Required CPET/ECET/CS Elective Courses Credits: 12

At least two courses or 6 of the 12 elective credits must be CPET/ECET courses. Two courses or 6 of the 12 elective credits may be CS courses.

Selected from the following:

- CPET 38400 - Wide Area Network Design Cr. 3.
- CPET 49300 - Wireless Networking Cr. 3.
- CPET 49400 - Java Programming Applications Cr. 4.
- CPET 49500 - Web Engineering and Design Cr. 4.
- ECET 30200 - Introduction to Control Systems Cr. 4.
- ECET 30500 - Advanced Microprocessors Cr. 4.
- ECET 30700 - Analog Network Signal Processing Cr. 4.

- ECET 34600 - Advanced Digital Circuits Cr. 3-4.
- ECET 36100 - Introduction to PLC and Pneumatic Systems Cr. 4.
- ECET 36500 - Electrical Measurements Cr. 4.
- ECET 37700 - Introduction to Fiber Optics Cr. 4.
- ECET 38200 - C++ Object Oriented Programming for Industrial Applications Cr. 4.
- ECET 39300 - Industrial Practice III Cr. 1-5.
- ECET 39400 - Industrial Practice IV Cr. 1-5.
- ECET 39500 - Industrial Practice V Cr. 1-5.
- ECET 40300 - Communications II Cr. 4.
- ECET 41100 - Microcomputer Interfacing Cr. 4.
- ECET 41400 - Wireless Communications Cr. 4.
- ECET 43400 - PC Systems II Cr. 4.
- ECET 46600 - Windows Programming for Industrial Applications Cr. 4.
- ECET 47300 - Microwaves Cr. 4.

Required Computer Sciences Courses Credits: 8

- CS 16000 - Introduction to Computer Science I Cr. 4.
- CS 16100 - Introduction to Computer Science II Cr. 4.

Required Math Courses Credits: 16

- MA 15400 - Algebra and Trigonometry II Cr. 3.
- MA 17500 - Introductory Discrete Mathematics Cr. 3.
- MA 22700 - Calculus for Technology I Cr. 4.
- MA 22800 - Calculus for Technology II Cr. 3.
- STAT 30100 - Elementary Statistical Methods I Cr. 3.

Required English Technical Writing Courses Credits: 3

- ENG W234 - Technical Report Writing Cr. 3.

Total Credits: 127

Minor in Computer Science (B.S. CPET) Credits: 20

If you use the two CPET/ECET/CS Electives in the curriculum for two of the courses, you can receive a CS minor by taking only one course not in the curriculum. See your advisor for more information on the forms required to pursue a Minor.

(Only computer science courses in which you have earned a grade of C or better can be applied to the degree or used to satisfy prerequisites)

- Approved computer science courses at the 200 level or above Credits: 6
- CS 16000 - Introduction to Computer Science I Cr. 4.
- CS 16100 - Introduction to Computer Science II Cr. 4.

- CS 26000 - Data Structures Cr. 3.
- MA 17500 - Introductory Discrete Mathematics Cr. 3.

Minor in Mathematics Credits (B.S. CPET): 20

Only one additional Mathematics course (MA 321 or MA 351) is required for a Mathematics Minor beyond the courses required in the curriculum. See your advisor for more information on the forms required to pursue a Minor.

- CS 16000 - Introduction to Computer Science I Cr. 4.
- MA 17500 - Introductory Discrete Mathematics Cr. 3.
- MA 22700 - Calculus for Technology I Cr. 4.
- MA 22800 - Calculus for Technology II Cr. 3.
- MA 32100 - Applied Differential Equations Cr. 3.
  or
- MA 35100 - Elementary Linear Algebra Cr. 3.
- STAT 30100 - Elementary Statistical Methods I Cr. 3.
  or
- STAT 51100 - Statistical Methods Cr. 3.

Computer Science (B.A.)

Program: B.A. (in cooperation with the School of Arts and Sciences)
Department of Computer Science
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 125 ~ 260-481-6803 ~ www.cs.ipfw.edu

The student learning outcomes for the degree are as follows:

- Students who complete the B.A. program in Computer Science should have mastered fundamental concepts in important areas of computing such as data structures and numerical analysis.

Offered within a liberal-arts framework, the Bachelor of Arts program in computer science helps you prepare for graduate studies or a career in computer science.

To earn the B.A. with a major in computer science, you must fulfill the requirements of IPFW (see Part 8) and the College of Arts and Sciences (see Part 4) in addition to the requirements below. No more than 10 credits with D grades can be applied to the degree. Of the mathematics courses numbered below MA 261, only MA 165, MA 166, and MA 175 apply toward the degree; statistics courses must be numbered 490 or higher to be counted.

Students interested in this program should contact the Department of Mathematical Sciences.

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

- Quantitative reasoning requirement satisfied by the mathematics courses below Credits: 0
- COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of the following Credits: 3

- ENG W131 - Elementary Composition I Cr. 3.
- ENG W140 - Elementary Composition Honors Cr. 3.

Area II—Natural and Physical Sciences

- Credits in approved two-course sequence in biology, chemistry, geosciences, or physics Credits: 8–10

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis

- MA 31400 - Introduction to Mathematical Modeling Cr. 3.
  (credits included in Mathematics and Statistics Requirement, below)

School of Arts and Sciences Requirements (29 credits)

English Writing

- ENG W233 - Intermediate Expository Writing Cr. 3.
  (or other approved writing course)

Foreign Language

- Requirements in Arts and Sciences Part B Credits: 14

Distribution

- Credits in Social and Behavioral Sciences Credits: 3
- Credits in Humanities Credits: 3
- MA 16600 - Analytic Geometry and Calculus II Cr. 4.
  satisfies the science and mathematics requirement (credits included in Mathematics and Statistics Requirement, below)

Cultural Studies

- Requirements in Arts and Sciences Part D Credits: 6

Computer Science Core (32 credits)

- Credits in approved advanced computer science courses at the 300 or 400 level Credits: 6
- CS 16000 - Introduction to Computer Science I Cr. 4.
- CS 16100 - Introduction to Computer Science II Cr. 4.
- CS 26000 - Data Structures Cr. 3.
- CS 27100 - Computer Architecture Cr. 3.
- CS 35000 - Programming Language Design Cr. 3.
- CS 38400 - Numerical Analysis Cr. 3.
- CS 48600 - Analysis of Algorithms Cr. 3.
- CS 48800 - Theory of Computation Cr. 3.

Mathematics and Statistics Requirement (20 credits)

- MA 16500 - Analytic Geometry and Calculus I Cr. 4.
- MA 16600 - Analytic Geometry and Calculus II Cr. 4.
- MA 17500 - Introductory Discrete Mathematics Cr. 3.
- MA 31400 - Introduction to Mathematical Modeling Cr. 3.

One of the following Credits: 3

- MA 35100 - Elementary Linear Algebra Cr. 3.
- MA 51100 - Linear Algebra with Applications Cr. 3.

One of the following Credits: 3

- STAT 51100 - Statistical Methods Cr. 3.
- STAT 51600 - Basic Probability and Applications Cr. 3.

Free Electives (9–11 credits)

- Credits in approved free electives sufficient to bring total to 124.

Total Credits: 124

Computer Science (B.S.)

Program: B.S.
Department of Computer Science
College of Engineering, Technology, and Computer Science

The student learning outcomes for the degree are as follows:

- An ability to apply knowledge of computing and mathematics appropriate to the discipline.
- An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution.
- An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs.
- An ability to function effectively on teams to accomplish a common goal.
- An understanding of professional, ethical, legal, security and social issues and responsibilities.
- An ability to communicate effectively with a range of audiences.
- An ability to analyze the local and global impact of computing on individuals, organizations, and society.
- Recognition of the need for and an ability to engage in continuing professional development.
- An ability to use current techniques, skills, and tools necessary for computing practice.
- An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices.
- An ability to apply design and development principles in the construction of software systems of varying complexity.

This program helps you prepare for a career in computer science and for possible graduate study.

The B.S. program in computer science is accredited by the Computing Accreditation Commission of ABET Inc., 111 Market Place, Suite 150, Baltimore, MD 21202-402, telephone, 410-347-7700. In addition to satisfying the requirements of IPFW (see Part 8) and the College of Engineering, Technology, and Computer Science (see Part 4), you must complete the following. Only computer science courses in which you have earned a grade of C or better can be applied to the degree or used to satisfy prerequisites. A maximum of 10 credits of D grades will be accepted in other courses.

IPFW General Education Requirements (40 Credits)

Area I—Linguistic and Numerical Foundations (10 Credits)

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
- MA 16500 - Analytic Geometry and Calculus I Cr. 4.

Area II—Natural and Physical Sciences (12 Credits)

Laboratory Science Sequence (8-10 Credits)

One of the following lab science sequences must be taken.

Course Number	Course Title	Credits
BIOL 108/109	Biology of Plants and Biology of Animals	8

BIOL 117/119	Principles of Ecology and Evolution and Principles of Structure and Function	8
CHM 115/116	General Chemistry I and II	8
GEOL G103/G104/G211	Earth Science: Materials and Processes, Earth Science: Evolution of the Earth, and Introduction to Paleobiology	9
PHYS 152/251	Mechanics and Heat, Electricity and Optics	10
PHYS 201/202	General Physics I and II	10
PHYS 218/219	General Physics I and II	8
PHYS 220/221	General Physics I and II	8

Science Elective (3-4 Credits)

- BIOL 10800 - Biology of Plants Cr. 4.
- BIOL 10900 - Biology of Animals Cr. 4.
- BIOL 11700 - Principles of Ecology and Evolution Cr. 4.
- BIOL 11900 - Principles of Structure and Function Cr. 4.
- BIOL 21500 - Basic Human Anatomy Cr. 4.
- BIOL 25000 - Women and Biology Cr. 3.
- BIOL 32600 - Heredity: A Human Perspective Cr. 3.
- BIOL 35000 - Plant Physiology Cr. 4.
- CHM 11500 - General Chemistry Cr. 4.
- CHM 11600 - General Chemistry Cr. 4.
- CHM 21800 - Introduction to Inorganic Chemistry Cr. 3.
- CHM 22400 - Introductory Quantitative Analysis Cr. 4.
- CHM 26100 - Organic Chemistry Cr. 3.
- GEOL G103 - Earth Science: Materials and Processes Cr. 3.
- GEOL G104 - Earth Science: Evolution of the Earth Cr. 3.
- GEOL G210 - Oceanography Cr. 3.
- GEOL G211 - Introduction to Paleobiology Cr. 3.
- GEOL G221 - Introductory Mineralogy Cr. 3-4.
- PHYS 15200 - Mechanics Cr. 5.
- PHYS 20100 - General Physics I Cr. 5.
- PHYS 20200 - General Physics II Cr. 5.
- PHYS 21800 - General Physics Cr. 4.
- PHYS 21900 - General Physics II Cr. 4.
- PHYS 22000 - General Physics Cr. 4.
- PHYS 22100 - General Physics Cr. 4.
- PHYS 25100 - Heat, Electricity, and Optics Cr. 5.
- PHYS 30200 - Puzzles, Strategy Games, and Problem Solving in the Physical Sciences Cr. 3.

Area III—The Individual, Culture, and Society (6 Credits)

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought (6 Credits)

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression (3 Credits)

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (3 Credits)

See Part 2 General Education Requirements for approved courses

- CS 306 may not be used to fulfill this requirement.

Major Requirements (54 Credits)

- CS 16000 - Introduction to Computer Science I Cr. 4.
- CS 16100 - Introduction to Computer Science II Cr. 4.
- CS 23200 - Introduction to C and Unix Cr. 3.
- CS 26000 - Data Structures Cr. 3.
- CS 27100 - Computer Architecture Cr. 3.
- CS 27400 - Data Communications Cr. 3.
- CS 35000 - Programming Language Design Cr. 3.
- CS 36000 - Software Engineering Cr. 3.
- CS 36400 - Introduction to Database Systems Cr. 3.
- CS 46000 - Capstone Design and Professional Practice Cr. 4.
- CS 47200 - Operating Systems Design Cr. 3.
- CS 48600 - Analysis of Algorithms Cr. 3.

Concentration Area (15 Credits)

To satisfy the Concentration Area requirement, at least 9 credit hours must be chosen from one concentration. The 6 remaining credit hours may be distributed among the other concenration areas. With prior written approval from the Department, 3 credit hours may be chosen from CS 492, CS 494 or CS 495.

Software Engineering Concentration

- CS 33100 - Introduction to C++ and Object-Oriented Programming Cr. 3.
- CS 36800 - Human-Computer Interaction Cr. 3.
- CS 46700 - Project Management Cr. 3.

Network Computing Concentration

- CS 37200 - Web Application Development Cr. 3.
- CS 37400 - Computer Networks Cr. 3.
- CS 44500 - Computer Security Cr. 3.

Informatics Concentration

- CS 32100 - Introduction to Computer Graphics Cr. 3.
- CS 36400 - Introduction to Database Systems Cr. 3.
- CS 38000 - Artificial Intelligence Cr. 3.
- CS 42100 - Advanced Computer Graphics Cr. 3.

Theoretical Foundations Concentration

- CS 38400 - Numerical Analysis Cr. 3.
- CS 47400 - Compiler Construction Cr. 3.
- CS 48800 - Theory of Computation Cr. 3.

Supporting Courses (16 Credits)

- ENG W234 - Technical Report Writing Cr. 3.
- MA 16600 - Analytic Geometry and Calculus II Cr. 4.
- MA 17500 - Introductory Discrete Mathematics Cr. 3.
- MA 35100 - Elementary Linear Algebra Cr. 3.
  or
- MA 51100 - Linear Algebra with Applications Cr. 3.
- STAT 51100 - Statistical Methods Cr. 3.

Electives (14 Credits)

Approved Electives (11 Credits)

Total Credits: 124

Construction Engineering Technology (B.S.)

Program: B.S.
Department of Manufacturing and Construction Engineering Technology and Interior Design
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 221 ~ 260-481-4127 ~ www.mcet.ipfw.edu

The student learning outcomes for the degree are as follows:

- An appropriate mastery of the knowledge, techniques, skills and modern tools of their disciplines.

- o Utilizing modern instruments, methods and techniques to implement construction contracts, documents, and codes.
  - o Evaluate materials and methods for construction projects.
  - o Utilize modern surveying methods for construction layout.
  - o Estimate material quantities.
  - o Estimate material costs.
- An ability to apply current knowledge and adapt to emerging applications of mathematics, science, engineering and technology.
  - o Utilize current industry standard equipment.
  - o Employ productivity software to solve problems.
- An ability to conduct. Analyze and interpret experiments and apply experimental results to improve processes.
  - o Determine forces and stresses in structural systems.
  - o Perform economic analyses related to design, construction, and maintenance.
- An ability to apply creativity in the design of systems, components or processes appropriate to program objectives.
  - o Produce design for construction and operations documents utilization.
  - o Perform standard analysis and design in one technical specialty in construction.
  - o Select appropriate construction materials and practices.
- An ability to function effectively on teams.
  - o Participate actively in team activities during and outside class.
- An ability to identify, analyze and solve technical problems.
  - o Apply basic concepts to the solution of hydraulic and hydrology problems.
  - o Apply basic concepts to the solution of geotechnics problems.
  - o Apply basic concepts to the solution of structures problems.
  - o Apply basic concepts to the solution of construction scheduling and management.
  - o Apply basic concepts to the solution of construction safety problems.
- An ability to communicate effectively.
  - o Demonstrate effective oral communication skills.
  - o Demonstrate effective written communication skills.
- A recognition of the need for, and an ability to engage in lifelong learning.
  - o Conduct web and library research and report findings.
- An ability to understand professional, ethical and social responsibilities in construction.
  - o Apply principles of construction law and ethics.
  - o Perform service learning.
- A respect for diversity and a knowledge of contemporary professional, societal and global issues.
  - o Understand societal and global issues.
  - o Understand issues of human diversity.
- A commitment to quality, timeliness, and continuous improvement.
  - o Produce work of quality and timeliness.
  - o Evaluate each course each semester.

Mission

To provide employers and the public of northeast Indiana with educated, technologically equipped graduates, able to serve the varied construction industries (represented by architectural, civil, and construction engineering technologies, and interior design) in advancing the solutions to problems facing the public and private sector.

Goals

- To provide education of the traditional and returning adult student for career success in the construction industry.
- To develop a respect for diversity and a knowledge of contemporary professional, societal, and global issues with an understanding of professional and ethical responsibilities.
- To be responsive to the ever-changing technologies of the construction industries.
- To instill in students the desire for and ability to engage in lifelong learning.

The breadth of the curriculum will provide leadership potential in addressing problems of the region, its people, and its industries.

This program is open to those who have earned an associate degree in architectural engineering technology or civil engineering technology, or the equivalent. Concentrations provide opportunities to prepare you for work in a specific segment of the construction industry. You may choose options in architectural engineering technology, civil engineering technology, or construction engineering technology. Graduates of this program take jobs with contractors, building-materials companies, utilities, architectural firms, engineering firms, and government agencies. The construction engineering technology program does not lead to licensure as a professional engineer or registered architect.

The program is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone, 410-347-7700. It provides you with problem solving skills, hands-on competency, and required state-of-the-art technical knowledge. Alumni of the department are employed in all areas of the building industry, including construction; architecture;interior design; civil engineering; land surveying; and state, county, and city governments.

To earn the B.S. with a major in construction engineering technology, you must fulfill the requirements of IPFW (see Part 8) and the College of Engineering, Technology, and Computer Science (see Part 4), those for an associate degree in architectural engineering technology or civil engineering technology, and the additional requirements below:

IPFW General Education Requirements

Area II—Natural and Physical Sciences Credits: 4

- GEOL G100 - General Geology Cr. 3-5.
- GEOL L100 - General Geology Laboratory Cr. 1-2.

Area III—The Individual, Culture, and Society Credits: 3

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 3

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses

ETCS General Distribution Requirements Credits: 10

- ENG W234 - Technical Report Writing Cr. 3.
- MA 22700 - Calculus for Technology I Cr. 4.

One of following:

- COM 31500 - Speech Communication of Technical Information Cr. 3.
- COM 32300 - Business and Professional Speaking Cr. 3.

Core and Concentration (Major) Courses Credits: 36

Major Courses

- Technical Selective Credits: 3
  (department-approved courses)
- ARET 35500 - Techniques of Land Utilization Cr. 3.
- CET 38100 - Structural Analysis Cr. 4.
- CET 43100 - Properties and Behavior of Soils Cr. 3.
- CNET 34400 - Constructed Project Quality I Cr. 3.
- CNET 34800 - Senior Capstone Design Project I Cr. 3.
- CNET 44200 - Costs Estimating Cr. 3.
- CNET 44300 - Engineered Construction Cr. 3.
- CNET 44500 - Construction Project Management I Cr. 3.
- CNET 44800 - Senior Capstone Design Project II Cr. 3.
- CNET 45700 - Construction Safety Cr. 3.

Structural Selectives Credits: 3

- CET 38500 - Fundamentals of Reinforced Concrete Cr. 3.
  or
- CET 48200 - Steel Structure Design Cr. 3.

Subtotal Credits: 62

Credits from the A.S. CET or A.S. ARET: 68

Total Credits: 130

Economics (B.A.)

Program: B.A.
College of Arts and Sciences

The student learning outcomes for the degree are not available for this degree, contact the program office.

Economics is the study of the rational allocation of scarce resources. The major seeks to develop those critical skills that help you understand and solve problems in a wide variety of circumstances. These analytical abilities are valuable in the business world and many professional disciplines such as law and social work.

This program is offered in close cooperation with the Department of Economics in the Richard T. Doermer School of Business and Management Sciences, which offers all economics courses required for the major.

To earn the B.A. with a major in economics, you must fulfill the requirements of IPFW (see Part 8) and the College of Arts and Sciences (see Part 4), in addition to the following requirements. Correspondence courses, whether from Indiana University or elsewhere, may not be used to satisfy any of the requirements for this major.

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

- COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of the following: Credits: 3

- ENG W131 - Elementary Composition I Cr. 3.
- ENG W140 - Elementary Composition Honors Cr. 3.

One of the following: Credits: 3-4

- MA 16500 - Analytic Geometry and Calculus I Cr. 4.
- MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society

See Part 2 General Education Requirements for approved courses

- Additional credits in Area III: 3
- ECON E201 - Introduction to Microeconomics Cr. 3.

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (not in ECON) Credits: 3

See Part 2 General Education Requirements for approved courses

College of Arts and Sciences Requirements

English Writing

- ENG W233 - Intermediate Expository Writing Cr. 3.
  (or other approved writing course)

Foreign Language

- Requirements in Arts and Sciences Part B Credits: 14

Distribution

Requirements in Arts and Sciences Part C Credits: 9

Cultural Studies

- Requirements in Arts and Sciences Part D Credits: 6

Economics Core Courses (15 credits)

- ECON E201 - Introduction to Microeconomics Cr. 3.
- ECON E202 - Introduction to Macroeconomics Cr. 3.
- ECON E270 - Introduction to Statistical Theory in Economics and Business I Cr. 3.
- ECON E321 - Intermediate Microeconomic Theory Cr. 3.
- ECON E322 - Intermediate Macroeconomic Theory Cr. 3.
- ECON E406 - Senior Seminar Cr. 3.
- Additional Economics Courses Credits: 9
  Additional credits in 300/400-level economics courses or in other courses approved by the economics faculty; at least two of these courses must be completed at IPFW.

General Elective Courses

- Sufficient additional credits to bring the total to 124.

Total Credits: 124

Electrical Engineering (B.S.E.E.)

Program: B.S.E.E.
Department of Engineering
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 327 ~ 260-481-6362 ~ www.engr.ipfw.edu

The student learning outcomes for the electrical degree are as follows:

- Graduates will demonstrate basic knowledge in chemistry, mathematics, physics, and engineering
- Graduates will demonstrate the ability to identify, formulate, and solve electrical engineering problems
- Graduates will demonstrate the ability to design, perform, and simulate experiments, to analyze data, and to interpret results
- Graduates will demonstrate the ability to design a system, component, or process that meets desired specifications and requirements
- Graduates will demonstrate the ability to function on engineering and science laboratory teams as well as on multidisciplinary design teams
- Graduates will use modern engineering tools to analyze electrical engineering problems
- Graduates will demonstrate an understanding of professional and ethical responsibility
- Graduates will communicate effectively in both verbal and written forms
- Graduates will have the confidence for self education and the ability for lifelong learning. They will have a broad education to understand the impact of engineering on society and demonstrate awareness of contemporary issues

Electrical engineers design, develop, and operate systems that generate and use electrical signals and power. The scope of electrical engineering has expanded tremendously in recent years. It is now the largest branch in engineering, with most graduates employed by manufacturers of electrical and electronic equipment, aircraft, business machines, and scientific equipment. IPFW offers state of-the-art knowledge in all areas of electrical engineering such as robotics, signal processing, and wireless communications. In addition to traditional classes, our curriculum includes an innovative set of first-year courses, integrated design experiences, hands-on laboratories, and a two-semester capstone project in which students design, build, and test a device as part of team.

To earn the B.S.E.E. at IPFW, you must satisfy the requirements of IPFW (see Part 8) and the College of Engineering, Technology, and Computer Science (see Part 4); you must also complete the following courses:

IPFW General Education Requirements Credits: 36

Area I—Linguistic and Numerical Foundations Credits: 10

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
- MA 16500 - Analytic Geometry and Calculus I Cr. 4.

Area II—Natural and Physical Sciences Credits: 9

- CHM 11500 - General Chemistry Cr. 4.
- PHYS 15200 - Mechanics Cr. 5.

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

> with the exception of IET 105

- ECON E201 - Introduction to Microeconomics Cr. 3.

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 2

- ENGR 12000 - Graphical Communications and Spatial Analysis Cr. 2.

Area VI—Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses

> with the exception of:

- MA 31400 - Introduction to Mathematical Modeling Cr. 3.
- PHYS 32500 - Scientific Computing Cr. 3.
- STAT 34000 - Elementary Statistical Methods II Cr. 3.

Freshman Engineering Credits: 6

- ENGR 10100 - Introduction to Engineering Cr. 1.
- ENGR 12100 - Computer Tools for Engineers Cr. 2.
- ENGR 19900 - Introduction to Engineering Design Cr. 3.

Core and Concentration (Major) Courses Credits: 48

- ECE 20100 - Linear Circuit Analysis I Cr. 3.
- ECE 20200 - Linear Circuit Analysis II Cr. 3.
- ECE 20800 - Election Devices and Design Laboratory Cr. 1.
- ECE 25500 - Introduction to Electronic Analysis and Design Cr. 3.
- ECE 27000 - Introduction to Digital System Design Cr. 4.
- ECE 29300 - Measurements and Instrumentation Cr. 2.
- ECE 30100 - Signals and Systems Cr. 3.
- ECE 30200 - Probabilistic Methods in Electrical Engineering Cr. 3.
- ECE 31100 - Electric and Magnetic Fields Cr. 3.
- ECE 33300 - Automatic Control Systems Cr. 3.
- ECE 36200 - Microprocessor Systems and Interfacing Cr. 4.
- ECE 38700 - Electronics and System Engineering Through Robotics Cr. 3.
- ECE 38800 - Electronics and System Engineering Through Robotics Lab Cr. 1
- ECE 40500 - Senior Engineering Design I Cr. 3.

- ECE 40600 - Senior Engineering Design II Cr. 3.
- ECE 42800 - Modern Communication Systems Cr. 3.
- ECE 43600 - Digital Signal Processing Cr. 3.
- ENGR 22100 - C and C++ Programming for Engineers Cr. 2.
- ENGR 22200 - Object Oriented Programming Cr. 1.

Required Mechanical Engineering Courses Credits: 3

- ME 25300 - Statics and Dynamics Cr. 3.

Mathematics and Science Requirements Credits: 22

- MA 16600 - Analytic Geometry and Calculus II Cr. 4.
- MA 26100 - Multivariate Calculus Cr. 4.
- MA 27500 - Intermediate Discrete Math Cr. 3.
- MA 35100 - Elementary Linear Algebra Cr. 3.
- MA 36300 - Differential Equations Cr. 3.
- PHYS 25100 - Heat, Electricity, and Optics Cr. 5.

Technical Elective Courses Credits: 9

At least 3 credits must be from the list of electrical engineering electives

Electrical Engineering Electives

- ECE 37300 - Numerical Methods for Engineers Cr. 3.
- CS 38400 - Numerical Analysis Cr. 3.
- ECE 46000 - Power Electronics Cr. 3.
- ECE 46500 - Embedded Microprocessors Cr. 3.
- ECE 48300 - Digital Control Systems - Analysis and Design Cr. 3.
- ECE 47400 - Introduction to Radio Frequency Circuit Design Cr. 3.
- ECE 48500 - Embedded Real-Time Operating Systems Cr. 4.
  An ECE 495/595 course can be included as an Electrical Engineering Elective with approval. A course cannot count towards both an undergraduate and graduate degree.

Engineering Electives

- CS 32100 - Introduction to Computer Graphics Cr. 3.
- CS 36000 - Software Engineering Cr. 3.
- ECE 35800 - Introduction to VHDL Programing Cr. 3.
- ECE 36800 - Data Structures Cr. 3.
- ECE 43700 - Computer Design and Prototyping Cr. 4.
- ECE 49500 - Selected Topics in Electrical Engineering Cr. 1-4.
- ECE 54700 - Introduction to Computer Communication Networks Cr. 3.
- SE 52000 - Engineering Economics Cr. 3.
- ME 30100 - Thermodynamics II Cr. 3.

Math and Science Electives

- MA 41700 - Mathematical Programming Cr. 3.
- MA 41800 - Computations Laboratory for MA 417 Cr. 1.
- PHYS 32200 - Optics Cr. 3.
- PHYS 34200 - Modern Physics Cr. 3.
- PHYS 34500 - Optics Laboratory I Cr. 1.
- PHYS 55000 - Introduction to Quantum Mechanics Cr. 3.

Total Credits: 127

GPA Requirement

All engineering & technical elective courses must have a combined minimum GPA of 2.0

Electrical Engineering Technology (B.S.)

Program: B.S.
Department of Computer and Electrical Engineering Technology & Information Systems and Technology
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 205 ~ 260-481-6338 ~ www.ceit.ipfw.edu

The learning outcomes for the degree are as follows:

- An appropriate mastery of the knowledge, techniques, skills and modern tools of electrical engineering technology.
- An appropriate mastery of the knowledge, techniques, skills and modern tools of electrical engineering technology.
- An ability to apply current knowledge and adapt to emerging applications of mathematics, science, engineering and technology.
- An ability to conduct, analyze and interpret experiments and apply experimental results to improve processes.
- An ability to apply creativity in the design of systems, components or processes appropriate to program objectives.
- An ability to function effectively on teams.
- An ability to identify, analyze and solve technical problems.
- An ability to communicate effectively in writing, and in oral presentation.
- A recognition of the need for, and an ability to engage in lifelong learning.
- An ability to understand professional, ethical and social responsibilities.
- The knowledge of and respect for diverse backgrounds and contemporary societal and global issues concerning the profession.
- A commitment to quality, timeliness, and continuous improvement.

The four-year B.S. EET program prepares students for careers in many fields related to engineering, in electronics or computer related industries, manufacturing, engineering sales, or any industry that uses electric power, electronic communications, computer networks, or computer-controlled equipment. The

program provides students with advanced study in specialized fields of electronics and computer networking and provides other courses to build a foundation of technical and non-technical knowledge that is essential in modern industry.

The CEIT department also offers the Bachelor of Science with a major in computer engineering technology (CPET), an Associate of Science in EET and an Associate and Bachelor of Science with a major in information systems. In addition to the degrees, the department offers a minor in electronics, and minor in information systems and certificate programs in computer-controlled systems, electronic communications, power electronics systems, and computer networking.

To earn the degree, you must complete the A.S. with a major in electrical engineering technology (see above); fulfill the requirements of IPFW (see Part 8) and of the College of Engineering, Technology, and Computer Science (see Part 4); and complete the following courses:

IPFW General Education Requirements

The courses listed below will meet the IPFW General Education Requirements required in the Bachelor of Science in electrical engineering technology.

Area I—Linguistic and Numerical Foundations Credits: 0 (+9 credits in A.S. Program)

These courses are all required for A.S. degree

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
  ENG W131 Grade C or above required.
- MA 15300 - Algebra and Trigonometry I Cr. 3.

Area II—Natural and Physical Sciences Credits: 3 (+4 Credits in A.S. Program)

PHYS 218 is required for the A.S. degree)

- CHM 11100 - General Chemistry Cr. 3.
- PHYS 21800 - General Physics Cr. 4.

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

- IET 10500 - Industrial Management Cr. 3.

Area IV—Humanistic Thought Credits: 3 (+3 credits in A.S. Program)

See Part 2 General Education Requirements for approved courses

One Area IV course is taken for the A.S. degree

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis Credits: 6

- ECET 49000 - Senior Design Project, Phase I Cr. 1-2.

- ECET 49100 - Senior Design Project, Phase II Cr. 2-5.

- ENG W421 - Technical Writing Projects Cr. 1-3.

Core and Concentration (Major) Courses Credits: 15

ECET 490 and ECET 491 also counted as ECET core courses.

- ECET 30200 - Introduction to Control Systems Cr. 4.
  or
- ECET 30300 - Communications I Cr. 4.
- ECET 30700 - Analog Network Signal Processing Cr. 4.
- ECET 35700 - Real-Time Digital Signal Processing Cr. 4.
- ECET 47000 - Technology Project Management Cr. 3.
- ECET 49000 - Senior Design Project, Phase I Cr. 1-2.

- ECET 49100 - Senior Design Project, Phase II Cr. 2-5.

Required ECET/CPET elective courses selected from the following Credits: 12

- CPET 28100 - Local Area Networks and Management Cr. 3.
- CPET 36400 - Networking Security Cr. 3.
- CPET 38400 - Wide Area Network Design Cr. 3.
- CPET 49300 - Wireless Networking Cr. 3.
- CPET 49400 - Java Programming Applications Cr. 4.
- CPET 49500 - Web Engineering and Design Cr. 4.
- CPET 49900 - Computer Engineering Technology Cr. 1-4.

- ECET 30500 - Advanced Microprocessors Cr. 4.
- ECET 34600 - Advanced Digital Circuits Cr. 3-4.
- ECET 36100 - Introduction to PLC and Pneumatic Systems Cr. 4.
- ECET 36500 - Electrical Measurements Cr. 4.
- ECET 37700 - Introduction to Fiber Optics Cr. 4.
- ECET 38200 - C++ Object Oriented Programming for Industrial Applications Cr. 4.

- ECET 40300 - Communications II Cr. 4.
- ECET 41100 - Microcomputer Interfacing Cr. 4.
- ECET 41400 - Wireless Communications Cr. 4.
- ECET 43400 - PC Systems II Cr. 4.
- ECET 43500 - Electronic Industrial Controls Cr. 3.
- ECET 45300 - Topics in Telecommunications Cr. 4.
- ECET 46600 - Windows Programming for Industrial Applications Cr. 4.
- ECET 47300 - Microwaves Cr. 4.
- ECET 49900 - Electrical Engineering Technology Cr. 1-9.

Select Either:

- CPET 35500 - Data Communications and Networking Cr. 4.
- ECET 35500 - Data Communications and Networking Cr. 4.

Select Either:

- CPET 37500 - Microprocessor-Based Digital Systems Cr. 3-4.
- ECET 37500 - Computer Controlled System Designs Cr. 3-4.

Select Either:

- CPET 47200 - Automatic Control Systems Cr. 4.
- ECET 47200 - Automatic Control Systems Cr. 4.

Select Either:

- CPET 48600 - Robotics and Control Electronics with Microcomputers Cr. 4.
- ECET 48600 - Robotics and Control Electronics with Microcomputers Cr. 4.

Non-ECET technical elective courses Credits:3

- CS, MET, or IET courses preferred *(credits may also be from co-op or military service)*

Required math courses Credits: 6 (+ 10 credits in A.S. Program)

- MA 32100 - Applied Differential Equations Cr. 3.
- STAT 30100 - Elementary Statistical Methods I Cr. 3.

Required English Technical Writing Course Credits: 3

- ENG W234 - Technical Report Writing Cr. 3.

Total Credits: 129 (69 in A.S. Program + 60 for B.S.)

Minor in Mathematics Credits: 20

Only two additional courses (CS 160 and MA 175) are required for a Mathematics Minor beyond the courses required in the curriculum. One can be taken as your Non-ECET elective. See your advisor for more information on the forms required to pursue a Minor.

- CS 16000 - Introduction to Computer Science I Cr. 4.
- MA 17500 - Introductory Discrete Mathematics Cr. 3.
- MA 22700 - Calculus for Technology I Cr. 4.
- MA 22800 - Calculus for Technology II Cr. 3.
- MA 32100 - Applied Differential Equations Cr. 3.
- STAT 30100 - Elementary Statistical Methods I Cr. 3.

Elementary Education (B.S.Ed.)

Program: B.S.Ed.
Department of Educational Studies
School of Education

Neff Hall 250 ~ 260-481-6441 ~ www.ipfw.edu/educ

The student learning outcomes for the degree are as follows:

- Becoming more caring, humane and functional citizens in a global, multicultural, democratic society
- Improving the human condition by creating positive learning environments
- Becoming change agents by demonstrating reflective professional practice
- Solving client problems through clear, creative analyses
- Assessing client performance, creating and executing effective teaching, counseling, and educational leadership by utilizing a variety of methodologies reflecting current related research
- Utilizing interdisciplinary scholarship, demonstrating technology and critical literacies, and effectively communicating with all stakeholders.

The B.S.Ed. in elementary education is intended to prepare students for successful careers as teachers of children in elementary-primary, and elementary-intermediate (K-6) classroom settings. Upon satisfactory completion of the program, you are eligible to apply for an Indiana teaching license.

To earn the B.S.Ed. in elementary education, you must satisfy the requirements of IPFW (see Part 8) and the School of Education.

IPFW General Education Requirements Credits: 56-58

Area I—Linguistic and Numerical Foundations Credits: 18

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
  (a grade of 3.0 or better is required)
- ENG W131 - Elementary Composition I Cr. 3.
  (a grade of 3.0 or better is required)
- ENG W233 - Intermediate Expository Writing Cr. 3.

(a grade of 3.0 or better is required)

- MA 10100 - Mathematics for Elementary Teachers I Cr. 3.
- MA 10200 - Mathematics for Elementary Teachers II Cr. 3.
- MA 10300 - Mathematics for Elementary Teachers III Cr. 3.

Area II—Natural and Physical Sciences Credits: 9-10

See Part 2 General Education Requirements for approved courses

- Biology Credits: 3
- Chemistry or Physics Credits: 3
- Geology or Astronomy Credits: 3
- Science lab requirement Credits: 0-1

Area III—The Individual, Culture, and Society Credits: 12

See Part 2 General Education Requirements for approved courses

- American History Credits: 3
- Economics or Political Science Credits: 3
- Sociology or Psychology 120 Credits: 3
  and one of the following:
- FWAS H201 - Humanities I: The Ancient World Cr. 3.
- FWAS H202 - Humanities II: Foundations of the Modern Western World Cr. 3.
- HIST H232 - The World in the 20th Century Cr. 3.

Area IV—Humanistic Thought Credits: 9

See Part 2 General Education Requirements for approved courses

- Philosophy Credits: 3
- ENG L101 - Western World Masterpieces I: Ancient to Renaissance Cr. 3.
  or
- ENG L102 - Western World Masterpieces II: Renaissance to Modern Cr. 3.
- ENG L390 - Children's Literature Cr. 3.

Area V—Creative and Artistic Expression Credits: 5-6

One of the following FINA courses:
- FINA T255 - Crafts and Design Cr. 3.
- FINA H101 - Art Appreciation Cr. 3.
  One of the following MUS courses:
- MUS Z241 - Introduction to Music Fundamentals Cr. 2.
- MUS Z101 - Music for the Listener Cr. 3.
  Must select FINA T255 or MUS Z241 or both

Area VI—Inquiry and Analysis Credits: 3

School of Education Requirements Credits: 67

Preprofessional Educational Requirements Credits: 15

Prior to being admitted to the Block 1: Teacher Education program you must complete the following initial requirements:

- PPST (Pre-Professional Skills Test)
- EDUC F200 - Examining Self as a Teacher Cr. 3.
  C: EDUC P250 and EDUC M101
- EDUC P250 - General Educational Psychology Cr. 1-4.
  C: EDUC F200 and EDUC M101
- EDUC Q200 - Introduction to Scientific Inquiry Cr. 1-3.
- EDUC W200 - Using Computers for Education Cr. 1.
  (a grade of B or better is required) (C: M101)
  Credits 1-3
- EDUC M101 - Laboratory/Field Experience Cr. 0-3.
  Credits: 0 (C: EDUC F200, EDUC P250, and EDUC W200)
- CSD 11500 - Introduction to Communicative Disorders Cr. 3.

Block 1: Teacher Education Credits: 12

- EDUA F300 Topical Exploration in Literacy Education Cr. 3 (C: EDUC P315 and EDUC M301)
- EDUC H340 - Education and American Culture Cr. 2-3.
- EDUC K305 - Teaching the Exceptional Learner in the Elementary School Cr. 3.
- EDUC M301 - Laboratory/Field Experience Cr. 0-3.
- EDUC P315 - Child Development in Early Childhood Cr. 3. (C: EDUA F300 and EDUC M301)

Additional Education Courses Credits: 4

If prerequisites have been met, these two courses can be taken any time after admission to the School of Education and before Student Teaching.

- EDUC M323 - The Teaching of Music in the Elementary Schools Cr. 2.
- EDUC M333 - Art Experiences for the Elementary Teacher Cr. 2.

Block 2: Professional Education (P: Block 1) Credits: 12

- EDUC E337 - Classroom Learning Environments Cr. 3.
- EDUC E370 - Language Arts & Reading I Cr. 3.
- EDUC K307 - Methods for Teaching Students with Special Needs Cr. 3.
- EDUC P375 - Classroom and Community Leadership Cr. 3.
- EDUC M301 - Laboratory/Field Experience Cr. 0-3.

Block 3: Professional Education (P: Block 2) Credits: 12

- EDUC E325 - Social Studies in the Elementary Schools Cr. 3.
- EDUC E328 - Science in the Elementary Schools Cr. 3.
- EDUC E371 - Language Arts and Reading II Cr. 3.
- EDUC N343 - Mathematics in the Elementary School Cr. 3.
- EDUC M401 - Laboratory/Field Experience Cr.0-3.

Student Teaching (P: Block 3) Credits 12

- EDUC M501 - Portfolio Credits: 0
- EDUC M425 - Student Teaching: Elementary Cr. 1-16.
  Credits: 12

Total Credits: 123

English (B.A.)

Program: B.A.
Department of English and Linguistics

Liberal Arts Building 145 ~ 260-481-6841 ~ www.ipfw.edu/engl

The student learning outcomes for the degree are as follows:

- Students display the ability to write critically, precisely, and persuasively, especially about topics relevant to their major field and their selected concentration.
- Students demonstrate the ability to communicate knowledge of literary, linguistics, and rhetorical conventions and traditions, especially those of America and England.
- Students can apply the appropriate research tools and methods to demonstrate critical understanding of their selected concentrations.

To earn the B.A. with a major in English, you must fulfill the requirements of IPFW (see Part 8), the College of Arts and Sciences (see Part 4), and those listed below.

As you complete your degree, you will be required to submit clean copies of two papers to the department. The first paper must be from a course taken during the first 15 credits you count toward the major, and the second from a course taken thereafter and counted toward the major. Both papers should be from courses taught in the department, be appropriate to your concentration, and represent your best work. At least one should be based on research and include documentation. Please turn the paper in before the end of the appropriate semester and include a copy of the assignment, if it is available.

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

- COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of the following Credits: 3

- ENG W131 - Elementary Composition I Cr. 3.
- ENG W140 - Elementary Composition Honors Cr. 3.

One of the following Credits: 3

- MA 15300 - Algebra and Trigonometry I Cr. 3.
- MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
- STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 3

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression

See Part 2 General Education Requirements for approved courses

- Credits not in your major discipline: 3

Area VI—Inquiry and Analysis

See Part 2 General Education Requirements for approved courses

- Credits not in your major discipline: 3

College of Arts and Sciences Requirements

English Writing

- ENG L202 - Literary Interpretation Cr. 3.

Foreign Language credits: 14

- Requirements in Arts and Sciences Part B

Distribution (not in major discipline) Credits: 9

- Requirements in Arts and Sciences Part C

Cultural Studies Credits: 6

- Requirements in Arts and Sciences Part D

Core and Concentration (Major) Courses

- ENG L202 - Literary Interpretation   Cr. 3
- Credits in Writing (ENG W203 or a W-prefixed course above the 200-level): 3
- Credits in American literature: 3
- Credits in British literature before 1700: 3
- Credits in British literature after 1700: 3
- Credits in language study (linguistics, history of the English language, or Old or Middle English literature): 3
- **Credits in one of the concentrations as listed: 15–53**
  - Literature
  - Writing
  - Teacher Certification
  - Language
  - Communication Media

General Elective Courses Credits: 0–32

- Sufficient elective credits, selected in consultation with your advisor

Total Credits: 124

Fine Arts (B.A.)

Program: B.A.
Department of Fine Arts
College of Visual and Performing Arts

Visual Arts Building 117 ~ 260-481-6705 ~ www.ipfw.edu/vpa/finearts

The student learning outcomes for the degree are as follows:

- Students will develop fundamental technical skills in 2D and 3D media to successfully express artistic ideas and develop an artistic awareness through visual expression. Students who are interested in the B.A. program combine advanced General Education study in such areas as anthropology, english, languages, and pyschology towards such careers as Art History, Art Management, and Art Therapy.

The Bachelor of Arts degree is designed to enable students to see, formulate, and articulate concepts through the manipulation of form and materials. The art-making practice is through Department of Fine Arts studio concentrations including ceramics, metalsmithing, drawing, painting, printmaking, and sculpture. The B.A. program is a broad-based liberal arts degree which allows students to explore wide-ranging interests in and out of studio art study. Students can choose to concentrate in a specific art discipline, or may explore a wide range of artistic disciplines. The Bachelor of Arts degree is divided into three parts; 33 credit hours of General Studies, 57-69 credit hours of Content Field (Art Studio and Art History classes), and 21-33 credit hours of General Liberal Arts classes. A total of

123 credit hours of study are required for graduation. Students in the Department of Fine Arts B.A. program must maintain a minimum 2.0 cumulative GPA.

Admission to B.A. Program with a Major in Fine Arts

To earn the B.A., you must fulfill the requirements of IPFW (see Part 8) and the College of Visual and Performing Arts (see Part 4). Students within the fine arts B.A. must maintain a minimum 2.0 GPA within the Content Field (see below).

Components	Credits
I. General Education	33
II. Content Field	57-69
III. General Liberal Arts	21-33
Total	123

IPFW General Education Requirements Credits: 33

Area I Linguistic and Numerical Foundations Credits: 9

See Part 2 General Education Requirements for approved courses

- Quantitative Reasoning Credits: 3
- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

- (Fine arts majors may not use any FINA-prefixed courses to fulfill this requirement)

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

- (Fine arts majors may not use any FINA-prefixed courses to fulfill this requirement)

Area VI—Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses

College of Visual and Performing Arts Requirements

II. Content Field Credits: 57-69

Students must complete three (3) classes in Art History (9 cr.) plus 36-48 credit hours of studio work to fulfill the Content Field.

100 level Foundation Requirements Credits: 12

- FINA P121 - Drawing Fundamentals I-II Cr. 3.
  (P121 is a pre-requisite to P122)
- FINA P122 - Drawing Fundamentals I-II Cr. 3.
- FINA P151 - Design Fundamentals I-II Cr. 3.
- FINA P152 - Design Fundamentals I-II Cr. 3.

100 Level Foundation Portfolio Review Checkpoint

Students in all of the Department of Fine Arts programs will submit a portfolio of 100 level Foundation studio work to be reviewed by Department of Fine Arts faculty. The review is a checkpoint to assure that students have met adequate quality standards in the Foundation program. The portfolio should consist of 12-15 works, with at least two works from each 100 level Foundation course. Upon a satisfactory portfolio review, students will continue in 200 level Fundamentals studio classes. Some students may be asked to re-take certain Foundation classes to attain department standards.

200 Level Studio Requirements Credits: 12

200 Level Studio*   9 cr.

At least one class each from the 2D and 3D area below.

- FINA P223 Figure Drawing (2D)
- FINA P225 Painting Fundamentals (2D)
- FINA P241 Printmaking Fundamentals (2D)
- FINA P231 Sculpture Fundamentals (3D)
- FINA P233 Metalsmithing Fundamentals (3D)
- FINA P235 Ceramics Fundamentals (3D)
  plus

- VCD P273 Computer Art and Design   3 cr.

*Additional 200 level Fundamentals classes beyond the four required can be used in the B.A. Advanced Studio area listed below.

Petition into the B.F. A. Program

Students may petition the Department of Fine Arts to enter the (Bachelor of Fine Arts) B.F.A. program after taking **all** of the above 200 level Fundamental classes.   Candidates for the B.F.A. program will be asked to fill out an application, present a portfolio for review (see below) of seven (7) 200 level studio classes, and be part of an interview with Department of Fine Arts faculty. Judgment will be made based on the above criteria and a review of grades.

Art History Requirements Credits: 9

- FINA H111 - Ancient and Medieval Art Cr. 3.
- FINA H112 - Renaissance Through Modern Art Cr. 3.
  (H111 and H112 must be taken in the first four semesters of study)
  One additional FINA 300 or 400 level Art History class.

Advanced Studio Courses Credits: 24-36

Studio Electives

At least eight (8)but no more than twelve (12) studio classes can be taken at the Advanced Studio level. At least two classes must be taken at the 300 level in each area of concentration before 400 level classes. 400 level classes can be repeated to meet credit requirements. Of the total credit hours in this category, up to four (4) studio classes can be taken from the Department of Visual Communications and Design (VCD) unless permission from your advisor is given to include more. Advanced studio classes should be selected in consultation with the Chair of the Department of Fine Arts.

III. General Liberal Arts Courses Credits: 21-33

A minimum of seven (7) but no more than eleven (11) liberal arts courses are needed to fulfill the B.A. requirements. Liberal Arts classes are defined as any IPFW class counted towards a degree (does not include remedial courses). An option of pursuing a minor in an outside field is encouraged within these credits.

Total Credits: 123

Recommendations, Requirements, Transfers, and Policies

Recommendations Students should schedule classes within the B.A. program under the guidance of the official departmental advisor.

Residence Requirements For a bachelor's degree, registration in and completion of at least 33 credits of resident course credit at the 200 level or above, including at least 15 credits at the 300 level or above, in courses applicable to the major.

Transfer and Returning Student Credit All studio and art history courses transferred from another institution or former IPFW art programs must be evaluated by appropriate faculty in the Department of Fine Arts program before they may be applied to a major in Fine Arts. See Transfer and Returning Student Credit Review.

Transfer and Returning Student Credit Review Courses in studio art that have been transferred to IPFW from another institution or former IPFW art programs are not counted as part of the Fine Arts major unless they have been reviewed by the Fine Arts faculty. For a review of transferred studio credit, the student should provide the viewer with a portfolio consisting of representative work in each area (e.g. painting, sculpture, etc.) for which the transfer credit is desired. The portfolio should include both studies and finished work and be as encompassing as possible.

Academic Probation/Dismissal Policies
If a student does not meet the university's GPA standard, they will be notified that they have been placed on academic probation and will be asked to make progress towards meeting campus standards. Department of Fine Arts programs have their own academic standards as stated above. If a student is not meeting these standards, they will be notified and placed on departmental academic

probation. If a student does not make positive progress towards meeting the academic standards of the department within twelve (12) credit hours of study, they will be subject to dismissal from the Department of Fine Arts program.

Fine Arts (B.F.A.)

Program: B.F.A.
Department of Fine Arts
College of Visual and Performing Arts

Visual Arts Building 117 ~ 260-481-6705 ~ www.ipfw.edu/vpa/finearts

The student learning outcomes for the degree are as follows:

- Students within the Bachelor of Fine Arts program will acquire the technical virtuosity to be successful as professional artists. Many students who seek a B.F.A. degree have aspirations towards graduate studies in a Masters of Fine Arts (M.F.A.) degree leading to careers such as professorship positions, corporate commissions, gallery ownership, museum curatorships, art criticism, and independent studio careers.

The Bachelor of Fine Arts program is designed for exceptional students who are interested in pursuing a professional career in the field of fine arts. They must have demonstrated superior quality and motivation in a particular studio art discipline. Students within the B.F.A. program can concentrate in ceramics, drawing, metal-smithing, painting, printmaking, or sculpture. Department of Fine Arts students who wish to attain a B.F.A. start in the B.A. program, then petition for formal entrance into the B.F.A. program after the completion of 200-level studio requirements. The Bachelor of Fine Arts degree is divided into two parts; 33 credit hours of General Education classes, and 90 credit hours of art history and studio classes. All B.F.A. students must maintain a 2.5 cumulative G.P.A. and a 3.0 G.P.A. within the Content Field courses (studio and art history) of the B.F.A. program. A total of 123 credit hours of study are required for graduation.

Admission

Students must meet the requirements of IPFW (see Part 8)

Components:	Credits
I. General Education	33
II. Content Field	90
Total	123

IPFW General Education Requirements Credits: 33

Area I—Linguistic and Numerical Foundations Credits: 9

See Part 2 General Education Requirements for approved courses

- Quantitative Reasoning Credits: 3
- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

Area III—The Individual, Culture, and Society Credits: 6

Area IV—Humanistic Thought Credits: 6

- (Fine arts majors may not use any FINA-prefixed courses to fulfill this requirement.)

Area V—Creative and Artistic Expression Credits: 3

- (Fine arts majors may not use any FINA-prefixed courses to fulfill this requirement).

Area VI—Inquiry and Analysis Credits: 3

College of Visual and Performing Arts Requirements

II. Content Field Credits: 90

Students must complete a minimum of 75 credit hours in studio and 15 credit hours in FINA art history classes for the B.F.A.

100 Level Foundation Courses Credits: 12

- FINA P121 - Drawing Fundamentals I-II Cr. 3.
  (P121 is a prerequisite to P122)
- FINA P122 - Drawing Fundamentals I-II Cr. 3.
- FINA P151 - Design Fundamentals I-II Cr. 3.
- FINA P152 - Design Fundamentals I-II Cr. 3.

100 Level Foundation Portfolio Review Checkpoint

Students in all of the Department of Fine Arts programs will submit a portfolio of 100 level Foundation studio work to be reviewed by Department of Fine Arts faculty. The review is a checkpoint to assure that students have met adequate quality standards in the Foundation program. The portfolio should consist of 12-15 works, with at least two works from each 100 level Foundation course. Upon a satisfactory portfolio review, students will continue in 200 level Fundamentals studio classes. Some students may be asked to re-take certain Foundation classes to attain department standards.

Art History Course Requirements Credits: 15

- 3 additional FINA 300 or 400 level Art History classes. Classes must have FINA prefix.
- FINA H111 - Ancient and Medieval Art Cr. 3.
- FINA H112 - Renaissance Through Modern Art Cr. 3.
(H111 and H112 must be taken in the first four semesters of study)

200-Level Course Requirements Credits: 21

- FINA P223 - Figure Drawing I Cr. 3.
- FINA P225 - Painting Fundamentals I Cr. 3.
- FINA P231 - Sculpture Fundamentals Cr. 3.
- FINA P233 - Metalsmithing Fundamentals Cr. 3.
- FINA P235 - Ceramics Fundamentals Cr. 3.
- FINA P241 - Printmaking Fundamentals Cr. 3.
- VCD P273 - Computer Art and Design I Cr. 3.

B.F.A. Portfolio Review

Each student must submit a portfolio of 200 level work to attain formal acceptance into the B.F.A. program. Each petitioning student must apply to present their work through the Department of Fine Arts office in the semester in which they complete all seven 200 level Fundamentals classes. Each student applying for acceptance into the B.F.A. program will declare their area of studio concentration, i.e., painting, sculpture, with the understanding that areas of art can be interdisciplinary and flexible. The portfolio should consist of 15-20 works, with at least two works from each 200 level Fundamentals course. Consideration of work will be given in accordance to each student's intended concentration area, i.e., printmaking majors should be able to show strong drawing skills. It is highly recommended that students seek faculty advice, especially from faculty whose area students are intending to apply, on which works to submit for review. Faculty evaluations will be based on a student's strong knowledge and skills in:

- Showing competence in representational drawing of volume, pictorial space, and the depiction of the human figure. An understanding of linear perspective should be evident.
- The ability to compose aesthetic element of line, tone/value, shape, texture, color, and 3D form in space.
- Demonstrating technical and aesthetic excellence (for the 60 credit level) in your chosen major; i.e. drawing, ceramics, metalsmithing, painting, printmaking, or sculpture.
- (for 2D majors) drawing, painting, printmaking as well as the demonstration of competence and serious investigation in 3D media.
- (for 3D majors) ceramics, metalsmithing, and sculpture with competence and serious investigation in 2D media.

B.F.A. Portfolio Review Outcome

A student applying for acceptance in the B.F.A. program may be accepted, deferred, or denied. A student's acceptance into the B.f.a. will allow them to advance into 300 level studio classes as a declared B.F.A. major. A deferred student will be asked to re-submit their portfolio for B.F.A. consideration after re-taking requested classes. A student denied entry into the B.f.a. program may wish to continue in the B.A. program or apply once again for entry into the B.F.A. program with permission from the department.

300/400-Level Concentration Courses Credits: 21

- Complete seven classes in declared Concentration Area. Some of these classes might be closely related such as painting and printmaking or sculpture and ceramics. Two 300 level classes must be taken before any 400 level classes in a given area. 400 level classes can be repeated to meet Concentration area requirements.

200/300/400 Electives Courses Credits: 15

- Complete five courses in elective classes. Classes can be either FINA or VCD. Usually these are classes outside the Concentration Area.

Senior Project Requirements Credits: 6

Senior Project

The Senior Project is a two-semester course during the senior year. Students must be signed into these classes by the Chair of the Department of Fine Arts. During this year, students' work will be critiqued by at least three faculty. Each student will be asked to partake in discussions of other student's work during the critiques. Students will also be asked to be part of seminars, attend visiting artists' lectures and demonstrations, visit exhibitions, and present and express ideas about their art work to other seniors. Students must also work closely with a full-time department faculty member as an advisor in their Concentration area. Evaluations of senior work will be based on the following criteria:

- Body of original and ambitious work

- Evidence of depth of thought

- Evidence of research

- Sufficient technical virtuosity

- Ability to explain ideas

- Participation in all departmental senior events

- Professional attitude

- Keeping abreast of new developments in the field as they pertain to your work

B.F.A. Senior Project Documents

Students are required to complete two written documents each semester of the Senior Project year.

- The Senior Projection document should be ready for department faculty by the beginning of their first semester of Senior Project. It should address the ideas they plan on dealing with and developing for the senior year. The quantity of work can be negotiated with the faculty.
- The Self Critique document will be required at the end of each semester as a critical self evaluation of a student's senior project experience. The critique should include ideas about the project and how it helped clarify their artistic direction.

B.F.A. Exhibition

At the end of the second Senior Project semester, the student must exhibit for graduation. The Department of Fine Arts Senior Exhibition will be at the end of the spring semester of each school year. Students can expect to work with the College of Visual and Performing Arts public relations specialist and gallery coordinator on publication materials and arrangements for their senior exhibition.

Total Credits: 123

Recommendations, Requirements, Transfers, and Policies

Recommendations Students should schedule classes within the B.A. program under the guidance of the official departmental advisor.

Residence Requirements For a bachelor's degree, registration in and completion of at least 33 credits of resident course credit at the 200 level or above, including at least 15 credits at the 300 level or above, in courses applicable to the major.

Transfer and Returning Student Credit All studio and art history courses transferred from another institution or former IPFW art programs must be evaluated by appropriate faculty in the Department of Fine Arts program before they may be applied to a major in Fine Arts. See Transfer and Returning Student Credit Review.

Transfer and Returning Student Credit Review Courses in studio art that have been transferred to IPFW from another institution or former IPFW art programs are not counted as part of the Fine Arts major unless they have been reviewed by the Department of Fine Arts faculty. For a review of transferred studio credit, the student should provide the viewer with a portfolio consisting of representative work in each area (e.g. painting, sculpture, etc.) for which the transfer credit is desired. The portfolio should include both studies and finished work and be as encompassing as possible.

Academic Probation/Dismissal Policies
If a student does not meet the university's GPA standard, they will be notified that they have been placed on academic probation and will be asked to make progress towards meeting campus standards. Department of Fine Arts programs have their own academic standards as stated above. If a student is not meeting these standards, they will be notified and placed on departmental academic probation. If a student does not make positive progress towards meeting the academic standards of the department within twelve (12) credit hours of study, they will be subject to dismissal from the Department of Fine Arts program.

French (B.A.)

Program: B.A.
Department of International Language and Culture Studies
College of Arts and Sciences

Liberal Arts Building 267 ~ 260-481-6836 ~ www.ipfw.edu/ilcs

The student learning outcomes for the degree are as follows:

- Acquire a broad foundation in language, literature, and culture in preparation for graduate studies or for a career where proficiency in a foreign language and international perspectives are important assets;
- Achieve the ACTFL intermediate-high level in speaking, demonstrate the ability to recognize and analyze grammatical and usage errors in own and others' writing;
- Develop an increased understanding of what it means to belong to a culture and awareness of how culture affects other interconnected issues of identity;
- Demonstrate the ability to think critically about these issues and how they shape intercultural communication.

French is the language of many fascinating countries and cultures in Africa, parts of Asia, Europe, and North America. French-speaking countries influence many fields of study, such as the arts, philosophy, politics and world economy, science, and technology. With a major in French and a degree, in particular a B.A., you may continue your education in languages or expand into other fields at a graduate school, or you may pursue a career in business or teaching.

To earn the B.A. with a major in French, you must fulfill the requirements of IPFW (see Part 8) and the College of Arts and Sciences (see Part 4), and satisfactorily complete the requirements of the major, given below.

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations Credits: 9

- COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of following Credits: 3

- ENG W131 - Elementary Composition I Cr. 3.
- ENG W140 - Elementary Composition Honors Cr. 3.

One of following Credits: 3

- MA 15300 - Algebra and Trigonometry I Cr. 3.
- MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
- STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society Credits: 6

- LING L103 - Introduction to the Study of Language Cr. 3.

One of following Credits: 3

- HIST H232 - The World in the 20th Century Cr. 3.
- INTL I200 - Introduction to International Studies: Emerging Global Visions Cr. 3.

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

- Additional credits in Area IV: 6

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (not in FREN) Credits: 3

See Part 2 General Education Requirements for approved courses

Recommended

- ANTH E335 - Ancient Civilizations of Mesoamerica Cr. 3.
- ANTH P370 - Ancient Cultures of South America Cr. 3.
- LING L360 - Language in Society Cr. 3.
- WOST W301 - International Perspectives on Women Cr. 3.

College of Arts and Sciences Requirements

English Writing Credits: 0

- (requirement is satisfied by ILCS I300, listed below)
- ## Foreign Language

  - FREN F111 - Elementary French I Cr. 4.
  - FREN F112 - Elementary French II Cr. 4.
    or
  - FREN F113 - Accelerated First Year French Cr. 4.

  ### Additional Foreign Language Requirements

  - FREN F203 - Second-Year French I Cr. 3.
  - FREN F204 - Second-Year French II Cr. 3.

  ### Distribution (not in FREN)

  - Requirements in Arts and Sciences Part C Credits: 9

  ### Cultural Studies

  - Requirements in Arts and Sciences Part D Credits: 6

  ### Core and Concentration (Major) Courses

  - Credits in 300-level French literature courses Credits: 6
  - Credits in 300-level French language courses, excluding F325 Oral French for Teachers Credits: *6–9
  - Credits in 400-level French and francophone civilization courses (F463 or F464) Credits: 3
  - Additional credits in 400-level French courses Credits: *9–12

  The combined total of 300-level French language courses and 400-level French courses must be at least 18 credits.

  - FREN F213 - Second-Year French Composition Cr. 3.
    (normally taken concurrently with F203–F204)
  - ILCS I300 - Methods of Research and Criticism Cr. 3.

  ### General Elective Courses

  - Sufficient additional credits to bring the total to 124.

  ### Total Credits: 124

French with Teacher Certification (B.A.)

Program: B.A. with Teacher Certification
Department of International Language and Culture Studies
College of Arts and Sciences

Liberal Arts Building 267 ~ 260-481-6836 ~ www.ipfw.edu/ilcs

The student lerning outcomes for the degree are as follows:

- Acquire a broad foundation in language, literature, culture and a knowledge of current methodologies in foreign language pedagogy;
- Achieve the ACTFL intermediate-high level in speaking, demonstrate the ability to recognize and analyze grammatical and usage errors in own and others' writing;
- Develop an increased understanding of what it means to belong to a culture and awareness of how culture affects other interconnected issues of identity;
- Demonstrate the ability to think critically about these issues and how they shape intercultural communication.

Students pursuing a French major for the B.A. with teacher certification must fulfill the requirements of IPFW (see Part 8) and the College of Arts and Sciences (see Part 4) and satisfactorily complete the requirements of the major, given below.

Prior to your junior year, the School of Education requires that you successfully complete EDUA F300, EDUC W200/M101, and EDUC K201 and the Pre-Professional Skills Test (PPST) before admission to the teacher education program. The PRAXIS II Specialty Area Exam must be completed before or during the student-teaching semester, normally in your senior year.

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations Credits: 9

- COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of following Credits: 3

- ENG W131 - Elementary Composition I Cr. 3.
- ENG W140 - Elementary Composition Honors Cr. 3.

One of following Credits: 3

- MA 15300 - Algebra and Trigonometry I Cr. 3.
- MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
- STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society Credits: 6

- LING L103 - Introduction to the Study of Language Cr. 3.

One of following Credits: 3

- HIST H232 - The World in the 20th Century Cr. 3.
- INTL I200 - Introduction to International Studies: Emerging Global Visions Cr. 3.

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

- Additional credits in Area IV: 3

One of following Credits: 3

- FWAS H201 - Humanities I: The Ancient World Cr. 3.
- FWAS H202 - Humanities II: Foundations of the Modern Western World Cr. 3.

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (not in FREN) Credits: 3

See Part 2 General Education Requirements for approved courses

College of Arts and Sciences Requirements (25–29 credits)

English Writing Credits: 0

- (requirement is satisfied by ILCS I300, listed below)
- ## Foreign Language (10–14 credits)

  - FREN F111 - Elementary French I Cr. 4.
  - FREN F112 - Elementary French II Cr. 4.
  or
  - FREN F113 - Accelerated First Year French Cr. 4.

  ### Additional Foreign Language Requirements

  - FREN F203 - Second-Year French I Cr. 3.
  - FREN F204 - Second-Year French II Cr. 3.

  ### Distribution (not in FREN)

  - Requirements in Arts and Sciences Part C Credits: 9

Cultural Studies

- o Requirements in Arts and Sciences Part D Credits: 6

Core and Concentration (Major) Courses

- o Credits in 300-level French language courses Credits: 6
- o Credits in 300-level French literature courses Credits: 6
- o Credits in 400-level French and francophone civilization courses (F463 or F464) Credits: 3
- o Additional credits in 400-level French courses Credits: 9
- o FREN F213 - Second-Year French Composition Cr. 3.
  (normally taken concurrently with F203–F204)
- o FREN F325 - Oral French for Teachers Cr. 3-8.
- o ILCS I300 - Methods of Research and Criticism Cr. 3.

Professional Education

Prior to being admitted to the teacher education program, you must complete the Initial Requirement courses and pass the PPST.

Initial Requirements

- o EDUA F300 - Topical Exploration in Education Cr. 1-3.
- o EDUC K201 - Schools, Society, and Exceptionality Cr. 1-3.
- o EDUC M101 - Laboratory/Field Experience Cr. 0-3.
- o EDUC W200 - Using Computers for Education Cr. 1.

Block I

- o EDUC H340 - Education and American Culture Cr. 2-3.
- o EDUC K206 - Teaching Methods for Students with Special Needs Cr. 1-3.
- o EDUC P250 - General Educational Psychology Cr. 1-4.
- o EDUC M201 - Laboratory/Field Experience Cr. 0-3.

Block II

- o EDUC P253 - Educational Psychology for Secondary Teachers Cr. 1-4.
- o EDUC M301 - Laboratory/Field Experience Cr. 0-3.
- o EDUC M445 - Methods of Teaching Foreign Languages Cr. 3.
- o EDUC M401 - Laboratory/Field Experience Cr.0-3.
- o EDUC X401 - Critical Reading in the Content Area Cr. 1-3.

Student Teaching

- o EDUC M480 - Student Teaching in the Secondary School Cr. 1-16.
  Credits: 12
- o EDUC M501 - Lab/Field Experience Cr. 0-3.
  Credits: 0

Middle School Certification (Recommended)

- o   EDUC M470 - Practicum Cr. 3-8.
  Credits: 4

General Elective Courses

- o   Sufficient additional credits, if necessary, to bring the total to 124.

Total Credits: 124-130

General Studies (B.G.S.)

Program: B.G.S.
Division of Continuing Studies

Kettler Hall 144 ~ 260-481-6828 ~ www.ipfw.edu/dcs/gsdp

The student learning outcomes for the degree are as follows:

- Speak and write precisely, clearly, and persuasively.
- Formulate arguments in a variety of contexts.
- Assess their own arguments and compare and evaluate them with the arguments of others.
- Understand the nature and diversity of individuals, organizations, cultures, and societies.
- Demonstrate understanding of scholarly approaches to such abiding questions as the meaning of life, the role of the arts and humanities, social and behavioral sciences, and sciences and mathematics in understanding what being human means, and the limits of knowledge.
- Apply their knowledge in written, oral communication, or technical competencies.
- Gather, evaluate, select, organize, and synthesize material in order to complete a research or creative project.
- Apply the knowledge gained across interdisciplinary boundaries.

General Studies offers a wide variety of personalized degree options to the traditional and nontraditional student. Students may individually tailor their program to combine a substantial core of courses basic to a traditional university education and study in career-related areas. Within the flexible framework of degree requirements, students may design an undergraduate program that can more readily meet their career and personal-development goals than can a traditional major. Students will be encouraged and assisted in developing a unique academic program complementing their individual interests, abilities, and intellectual and practical concerns.

In addition to taking advantage of the wide variety of daytime, evening, and weekend classes at IPFW, students may choose to earn credit toward their degree through correspondence study. Students may also earn credit by examination, and in some cases earn credit for significant, documentable self-acquired competencies when the learning outcomes have been comparable to those of university-level work. Consideration is given to all previously earned college credit from other accredited institutions. The Associate of Arts in General Studies and Bachelor of General Studies programs may also be tailored to the needs of those unable to study on campus during regularly scheduled periods. Both degrees may be completed online.

Both programs include courses in broad categories called required areas of learning (listed below) and elective credit that students may earn in any IPFW program. The required areas of learning provide broad exposure to the humanities, social sciences, and sciences, while the electives permit students to explore areas of interest, receive credit for prior university-level experiential learning, and tailor the degree to their individual needs. In each plan of study, students

must demonstrate competency in each of the following areas: written communication (two courses), oral communication, mathematics, computer literacy, and a diversity course.

After students are admitted to a general studies degree program, students will develop a plan of study to meet their objectives. An advisor will provide assistance in this effort. For further information, refer to the current Indiana University School of Continuing Studies *General Studies Degree Bulletin*.

To earn a B.G.S., students must complete the following requirements:

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations Credits: 9

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
- STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses

Required Areas of Learning

General studies is a university-wide degree program, certified through Indiana University's School of Continuing Studies. The program follows the same curriculum requirements throughout Indiana University.

Arts and Humanities Credits: 0-6

(depending upon course selection for general education)

Afro-American Studies	Foreign Language
Classical Studies	History
Communication	Journalism
Comparative Literature	Music
English (except R150 and W130)	Philosophy
Film	Religion
Fine Arts	Theatre
Folklore	Visual Communication and Design

Science and Mathematics Credits: 3-9

(depending upon course selection for general education)

- ANTH B200 and E445 (only)
- Astronomy
- Biology
- Chemistry
- Computer Science (includes BUS K211, K212, K213, K214, K215, and K216)
- ECON E270 (only)
- Entomology
- *ETCS 106
- Forestry and Natural Resources
- GEOG G107, G109, G315 (only)
- Geology
- Horticulture
- Mathematics (except 109, 111, and 113)
- Physics
- PSY 120, 201, 310, 314, 329, and 416 (only)
- SOC S351 (only)
- SPEA K300 (only)
- Statistics

*required course

Social and Behavior Sciences Credits: 6-12

(depending upon course selection for general education)

- Anthropology
- Economics
- Geography
- Linguistics

- Political Science
- Psychology
- Sociology
- SPEA J101 (only)
- WOST W210 (only)

Required Core and Concentration (Major) Credits: 54

- 12 credits in each required area of learning, including courses from at least two departments in each area Credits: 36
- 18 credits in one of the three required areas of learning Credits: 18

General Elective Courses Credits: 66

In consultation with an advisor, you are urged to concentrate electives in related departments (15 credits in arts and sciences are required).

Note

Students must complete at least 20 of these credits after admission to the program. No more than 21 credits in a single arts and sciences department/subject area or 30 credits in a single professional school area may be counted. A minimum of 30 credits must be taken at the 300–400 level. At least 30 credits must be taken within the IU system or as a Purdue student at IPFW. No more than 30 credits toward the BGS may be awarded for successful completion of external exams such as CLEP. Students admitted to the BGS program as of Fall 2008 or subsequent semesters may not apply more than 64 credits from a community college toward the completion of the requirements for the BGS degree.

Total Credits: 120

Geology (B.A.)

Program: B.A.
Department of Geosciences
College of Arts and Sciences

Science Building 230 ~ 260-481-6249 ~ www.geosci.ipfw.edu

The student learning outcomes for the degree are as follows:

- Acquisition of a central core of geological knowledge
- Ability to review and evaluate geologic research
- Ability to synthesize and integrate interconnectedness among geological subdisciplines
- Proficiency in ancillary sciences applied to geology
- Ability to apply simple mathematical solutions to quantifiable problems
- Ability to draw interferences about geological phenomena not encountered in course work
- Empowerment to become agents of change

To earn the B.A. with a major in geology, you must fulfill the requirements of IPFW (see Part 8) and the College of Arts and Sciences (see Part 4), and complete required geoscience courses with grades of C or better.

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- MA 15300 - Algebra and Trigonometry I Cr. 3.
- MA 15400 - Algebra and Trigonometry II Cr. 3.

One of following Credits: 3

- ENG W131 - Elementary Composition I Cr. 3.
- ENG W140 - Elementary Composition Honors Cr. 3.

Area II—Natural and Physical Sciences

- CHM 11500 - General Chemistry Cr. 4.

One of the following: Credits: 0

(credits included in Major Courses, below)

- AST A100 - The Solar System Cr. 3.
- GEOG G107 - Physical Systems of the Environment Cr. 3.
- GEOL G100 - General Geology Cr. 3-5.
  With L100
- GEOL G103 - Earth Science: Materials and Processes Cr. 3.
- GEOL G210 - Oceanography Cr. 3.

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (not in GEOL) Credits: 3

See Part 2 General Education Requirements for approved courses

College of Arts and Sciences Requirements

English Writing

- ENG W233 - Intermediate Expository Writing Cr. 3.

Foreign Language

- Requirements in Arts and Science Part B Credits: 14

Distribution

One of following Credits: 4-6

- Credits in social and behavioral sciences Credits: 3
- Credits in humanities Credits: 3
- BIOL 11700 - Principles of Ecology and Evolution Cr. 4.
- PHYS 13100 - Concepts in Physics I Cr. 3.
- PHYS 13200 - Concepts in Physics II Cr. 3.

Cultural Studies

- Requirements in Arts and Sciences Part D Credits: 6

Core and Concentration (Major) Courses

- GEOG G237 - Cartography and Geographic Information Cr. 3.
- GEOL G104 - Earth Science: Evolution of the Earth Cr. 3.
- GEOL G211 - Introduction to Paleobiology Cr. 3.
- GEOL G221 - Introductory Mineralogy Cr. 3-4.
  Credits: 3
- GEOL G222 - Introduction to Petrology Cr. 3-4.
- GEOL G323 - Structural Geology Cr. 3-4.
- GEOL G334 - Principles of Sedimentology and Stratigraphy Cr. 3-4.

One of following Credits: 3-4

- AST A100 - The Solar System Cr. 3.
- GEOG G107 - Physical Systems of the Environment Cr. 3.
- GEOL G100 - General Geology Cr. 3-5.
- GEOL G103 - Earth Science: Materials and Processes Cr. 3.
- GEOL G210 - Oceanography Cr. 3.
  All courses require GEOL L100 - General Geology Laboratory Cr. 1-2.
  (with the exception of GEOL G103)

General Elective Courses

- Sufficient additional credits to bring the total to 124.

Total Credits: 124

Honors in Geology

Students are encouraged to participate in the departmental honors program. To complete the program, you must maintain a GPA of 3.5 or higher in geology and a cumulative GPA of 3.3 or higher, and must complete at least 1 credit of GEOL G499 Honors Research in Geology leading to a thesis, the results of which must be publicly presented.

Geology (B.S.G.)

Program: B.S.G.
Department of Geosciences
College of Arts and Sciences

Science Building 230 ~ 260-481-6249 ~ www.geosci.ipfw.edu

 The student learning outcomes for the degree are as follows:

- Acquisition of a central core of geological and environmental knowledge
- Ability to review and evaluate geologic and environmental knowledge
- Ability to synthesize and integrate interconnectedness among geological and related disciplines
- Proficiency in ancillary sciences applied to geology
- Ability to apply appropriate mathematical solutions to quantifiable problems
- Ability to draw inferences about phenomena not encountered in course work
- Ability to solve field problems
- Ability to read, write, and give oral presentations of technical papers
- Ability to develop and apply multiple working hypotheses to environmental and geological problems
- Empowerment for advanced study in graduate school or for employment in technical and non-technical fields, possibly as a professional geologist

To earn the B.S.G., you must fulfill the requirements of IPFW (see Part 8) and the College of Arts and Sciences (see Part 4) and complete required courses in geoscience and ancillary subject areas with grades of C or better.

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- MA 22700 - Calculus for Technology I Cr. 4.
- MA 22800 - Calculus for Technology II Cr. 3.

One of following Credits: 3

- ENG W131 - Elementary Composition I Cr. 3.
- ENG W140 - Elementary Composition Honors Cr. 3.

Area II—Natural and Physical Sciences

Credits included in Core Courses, below

- CHM 11500 - General Chemistry Cr. 4.

One of following Credits: 0

- AST A100 - The Solar System Cr. 3.
- GEOG G107 - Physical Systems of the Environment Cr. 3.
- GEOL G100 - General Geology Cr. 3-5.
  With L100
- GEOL G103 - Earth Science: Materials and Processes Cr. 3.
- GEOL G210 - Oceanography Cr. 3.

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (not in GEOL) Credits: 3

See Part 2 General Education Requirements for approved courses

College of Arts and Sciences Requirements

English Writing

- ENG W233 - Intermediate Expository Writing Cr. 3.

Foreign Language

- Credits in the first year of a modern foreign language Credits: 8

Core and Concentration (Major) Courses

- Credits in a STAT or CS course approved by your advisor Credits: 3
- CHM 11500 - General Chemistry Cr. 4.

- CHM 11600 - General Chemistry Cr. 4.
- GEOL G104 - Earth Science: Evolution of the Earth Cr. 3.
- GEOL G211 - Introduction to Paleobiology Cr. 3.
- GEOL G221 - Introductory Mineralogy Cr. 3-4.
  Credits: 3
- GEOL G222 - Introduction to Petrology Cr. 3-4.
- GEOL G319 - Elementary Field Geology Cr. 2.
- GEOL G323 - Structural Geology Cr. 3-4.
- GEOL G334 - Principles of Sedimentology and Stratigraphy Cr. 3-4.
- PHYS 21800 - General Physics Cr. 4.
  and
- PHYS 21900 - General Physics II Cr. 4.
  or
- PHYS 22000 - General Physics Cr. 4.
  and
- PHYS 22100 - General Physics Cr. 4.

One of following Credits: 3-4

- AST A100 - The Solar System Cr. 3.
  with GEOL L100 (4 credits)
- GEOG G107 - Physical Systems of the Environment Cr. 3.
  with GEOL L100 (4 credits)
- GEOL G100 - General Geology Cr. 3-5.
  with L100 (4 credits)
- GEOL G103 - Earth Science: Materials and Processes Cr. 3.
- GEOL G210 - Oceanography Cr. 3.
  with L100 (4 credits)

Option Requirements

- Credits in the Environmental Geology Option or Geology Option Credits: 15–18
  (see below)

General Elective Courses

- Sufficient additional credits to bring the total to 124.

Total Credits: 124

Environmental Geology Option

This option will help you prepare for advanced study in environmental geology or for work as a professional geologist in the areas of water supply, waste management, geological hazards, and engineering geology.

12 credits from the following:

- Additional credits in 300- or 400-level geology courses Credits: 3
- GEOG G315 - Environmental Conservation Cr. 3.
- GEOL G300 - Environmental and Urban Geology Cr. 3.
- GEOL G406 - Introduction to Geochemistry Cr. 3.
- GEOL G415 - Geomorphology Cr. 3-4.
- GEOL G451 - Principles of Hydrogeology Cr. 3.

Total Credits: 15

Geology Option

This is the traditional option in geology. It will help you prepare for advanced study in geology or work as a professional geologist.

Option Requirements

- Field camp experience (e.g., GEOL G429) Credits: 6–7
- Credits in 400-level geology courses Credits: 8
- Additional credits in 300- or 400-level geology courses Credits: 3

Total Credits: 17-18

German (B.A.)

Program: B.A.
Department of International Language and Culture Studies
College of Arts and Sciences

Liberal Arts Building 267 ~ 260-481-6836 ~ www.ipfw.edu/ilcs/

The student learning outcomes for the degree are as follows:

- Acquire a broad foundation in language, literature, and culture in preparation for graduate studies or for a career where proficiency in a foreign language and international perspectives are important assets;
- Achieve the ACTFL intermediate-high level in speaking, demonstrate the ability to recognize and analyze grammatical and usage errors in own and others' writing;
- Develop an increased understanding of what it means to belong to a culture and awareness of how culture affects other interconnected issues of identity;
- Demonstrate the ability to think critically about these issues and how they shape intercultural communication.

To earn the B.A. with a major in German, you must fulfill the requirements of IPFW (see Part 8) and the College of Arts and Sciences (see Part 4), and satisfactorily complete the requirements of the major, given below:

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

- COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of the following Credits: 3

- ENG W131 - Elementary Composition I Cr. 3.
- ENG W140 - Elementary Composition Honors Cr. 3.

One of the following Credits: 3

- MA 15300 - Algebra and Trigonometry I Cr. 3.
- MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
- STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society

- LING L103 - Introduction to the Study of Language Cr. 3.

One of following Credits: 3

- HIST H232 - The World in the 20th Century Cr. 3.
- INTL I200 - Introduction to International Studies: Emerging Global Visions Cr. 3.

Area IV—Humanistic Thought

See Part 2 General Education Requirements for approved courses

- Additional credits in Area IV Credits: 3

One of the following Credits: 3

- FWAS H201 - Humanities I: The Ancient World Cr. 3.
- FWAS H202 - Humanities II: Foundations of the Modern Western World Cr. 3.

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (not in GER) Credits: 3

See Part 2 General Education Requirements for approved courses

College of Arts and Sciences Requirements

English Writing

- (requirement is satisfied by ILCS I300, listed below)
- ## Foreign Language

One of the following:

- GER G111 - Elementary German I Cr. 4.
- GER G112 - Elementary German II Cr. 4.
  or
- GER G113 - First-Year German in One Semester Cr. 4.

Additional Foreign Language Requirements

- GER G203 - Second-Year German I Cr. 3.
- GER G204 - Second-Year German II Cr. 3.

Distribution (not in GER)

- Requirements in Arts and Sciences Part C Credits: 9

Cultural Studies

- Requirements in Arts and Sciences Part D Credits: 6

Core and Concentration (Major) Courses

- Credits in German culture, normally G362, G363, G463, or G464 Credits: 3
- Credits in 300-level German literature courses Credits: 3
- Additional credits in German at the 300 level Credits: 3
- Additional credits in German language skills at the 300 level: Credits: 6
- Credits in 400-level German courses (language, literature, and/or culture) Credits: 9
- ILCS I300 - Methods of Research and Criticism   Credits: 3

General Elective Courses

- Sufficient additional credits to bring the total to 124.

Total Credits: 124

German with Teacher Certification (B.A.)

Program: B.A. with Teacher Certification
Department of International Language and Culture Studies
College of Arts and Sciences

Liberal Arts Building 267 ~ 260-481-6836 ~ www.ipfw.edu/ilcs/

The student learning outcomes for the degree are as follows:

- Acquire a broad foundation in language, literature, culture and a knowledge of current methodologies in foreign language pedagogy;
- Achieve the ACTFL intermediate-high level in speaking, demonstrate the ability to recognize and analyze grammatical and usage errors in own and others' writing;
- Develop an increased understanding of what it means to belong to a culture and awareness of how culture affects other interconnected issues of identity;
- Demonstrate the ability to think critically about these issues and how they shape intercultural communication.

Students pursuing a B.A. in German with teacher certification must fulfill the requirements of IPFW (see Part 8) and the College of Arts and Sciences (see Part 4) and satisfactorily complete the following requirements.

Prior to your junior year, the School of Education requires that you successfully complete EDUA F300, EDUC W200/M101, and EDUC K201 and the Pre-Professional Skills Test (PPST) before admission to the teacher education program. The PRAXIS II Specialty Area Exam must be completed before or during the student teaching semester, normally in your senior year.

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundation

- COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of following Credits: 3

- ENG W131 - Elementary Composition I Cr. 3.
- ENG W140 - Elementary Composition Honors Cr. 3.

One of following Credits: 3

- MA 15300 - Algebra and Trigonometry I Cr. 3.
- MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
- STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society

- LING L103 - Introduction to the Study of Language Cr. 3.

One of following Credits: 3

- HIST H232 - The World in the 20th Century Cr. 3.
- INTL I200 - Introduction to International Studies: Emerging Global Visions Cr. 3.

Area IV—Humanistic Thought

See Part 2 General Education Requirements for approved courses

- Additional credits in Area IV Credits: 3

One of following Credits: 3

- FWAS H201 - Humanities I: The Ancient World Cr. 3.
- FWAS H202 - Humanities II: Foundations of the Modern Western World Cr. 3.

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (not in GER) Credits: 3

See Part 2 General Education Requirements for approved courses

College of Arts and Sciences Requirements

English Writing

- ILCS I300 - Methods of Research and Criticism Cr. 3.

Foreign Language

- GER G203 - Second-Year German I Cr. 3.
- GER G204 - Second-Year German II Cr. 3.

One of following Credits: 4-8

- GER G111 - Elementary German I Cr. 4.
- GER G112 - Elementary German II Cr. 4.
- GER G113 - First-Year German in One Semester Cr. 4.

Distribution (not in GER)

- Requirements in Arts and Sciences Part C Credits: 9

Cultural Studies

- Requirements in Arts and Sciences Part D Credits: 6

Core and Concentration (Major) Courses

- Credits in German culture, normally G362, G363, G463, or G464 Credits: 3
- Credits in 300-level German literature courses Credits: 3
- Additional German credits at the 300 level Credits: 3
- Additional German language skills credits at the 300 level Credits: 6
- Credits in 400-level German courses (language, literature, and/or culture) Credits: 9
- GER G318 - German Language Skills I Cr. 3-5.
- GER G325 - German for Teachers Cr. 3.
- ILCS I300 - Methods of Research and Criticism Cr. 3.

Professional Education

Prior to being admitted to the teacher education program, you must complete the Initial Requirement courses and pass the PPST.

Initial Requirements

- EDUA F300 - Topical Exploration in Education Cr. 1-3.
  Credits: 2
- EDUC K201 - Schools, Society, and Exceptionality Cr. 1-3.
  Credits: 1
- EDUC M101 - Laboratory/Field Experience Cr. 0-3.
  Credits: 0
- EDUC W200 - Using Computers for Education Cr. 1.

Block I

- EDUC H340 - Education and American Culture Cr. 2-3.
  Credits: 3
- EDUC K206 - Teaching Methods for Students with Special Needs Cr. 1-3.
  Credits: 3
- EDUC P250 - General Educational Psychology Cr. 1-4.
- EDUC M201 - Laboratory/Field Experience Cr. 0-3.

Block II

- EDUC M445 - Methods of Teaching Foreign Languages Cr. 3.
- EDUC M401 - Laboratory/Field Experience Cr.0-3.
- EDUC P253 - Educational Psychology for Secondary Teachers Cr. 1-4.

- EDUC M301 - Laboratory/Field Experience Cr. 0-3.
- EDUC X401 - Critical Reading in the Content Area Cr. 1-3.

Student Teaching

- EDUC M480 - Student Teaching in the Secondary School Cr. 1-16.
  Credits: 12
- EDUC M501 - Lab/Field Experience Cr. 0-3.
  Credits: 0

Middle School Certification (Recommended)

- EDUC M470 - Practicum Cr. 3-8.
  Credits: 4

General Elective Courses

- Sufficient additional credits, if necessary, to bring the total to 124.

Total Credits: 124

History (B.A.)

Program: B.A.
Department of History
College of Arts and Sciences

Liberal Arts Building 209 ~ 260-481-6686 ~ www.ipfw.edu/hist

The student learning outcomes for the degree are as follows:

- Possess broad knowledge and some specialized understanding of the diverse historical pasts of America, Europe, and the World;
- Understand the basic scientific and humanistic methodology of history as an intellectual discipline including the direct experience of evaluating primary sources and secondary literature;
- Demonstrate the ability to read, analyze, and write about historic topics;
- Recognize historical analyses of human experience as the basic outlook of modern culture; and
- Be equipped to continue historical studies throughout life.

To earn the B.A. with a major in history, you must fulfill the requirements of IPFW (see Part 8), the College of Arts and Sciences (see Part 4), and those listed below.

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations Credits: 9

- COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of the following Credits: 3

- ENG W131 - Elementary Composition I Cr. 3.
- ENG W140 - Elementary Composition Honors Cr. 3.

One of the following Credits: 3

- MA 15300 - Algebra and Trigonometry I Cr. 3.
- MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
- STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

- Additional credits in Area III Credits: 3
- HIST H105 - American History I Cr. 3.

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (not in HIST) Credits: 3

See Part 2 General Education Requirements for approved courses

College of Arts and Sciences Requirements

English Writing

- HIST H217 - The Nature of History Cr. 3.

Foreign Language

- Requirements in Arts and Sciences Part B   Credits: 14

Distribution (not in HIST)

- Requirements in Arts and Sciences Part C   Credits: 9

Cultural Studies

- Credits in non-Western culture: Cr. 3
- HIST H113 - History of Western Civilization I Cr. 0

(credits included in Major Courses, below)

Core and Concentration (Major) Courses

- HIST H105 - American History I Cr. 3.
- HIST H106 - American History II Cr. 3.
- HIST H113 - History of Western Civilization I Cr. 3.
- HIST H114 - History of Western Civilization II Cr. 3.
- HIST J495 - Proseminar for History Majors Cr. 3.
- Credits in upper-level American history Cr. 6.
- Credits in upper-level Western European history* Cr. 6.
- Credits in upper-level Other World history* Cr. 6.
- Additional credits in history (H217 excluded) Cr. 3.
  - *HIST H232 may not be used to fulfill the Western European or Other World requirements, but may be used for additional credit toward the major or minor.

General Elective Courses

- Sufficient additional credits to bring the total to 124.

Total Credits: 124

Honors in History

A student may earn an honors B.A. degree in history by achieving an overall GPA of 3.5 and a philosophy GPA of 3.5 or higher; conducting a two-semester (6 credit) research project; preparing a senior thesis based on the research project; and giving an oral presentation of the thesis research. The senior thesis committee must be established one semester before graduation.

History Honors Degree (B.A.)

Program: B.A. Honors
Department of History
College of Arts and Sciences

Liberal Arts Building 209 ~ 260-481-6686 ~ www.ipfw.edu/hist

The student learning outcomes for the degree are as follows:

- Possess broad knowledge and some specialized understanding of the diverse historical pasts of America, Europe, and the World.
- Understand the basic scientific and humanistic methodology of history as an intellectual discipline including the direct experience of evaluating primary sources and secondary literature.
- Demonstrate the ability to read, analyze, and write about historic topics.
- Recognize historical analyses of human experience as the basic outlook of modern culture.
- Be equipped to continue historical studies throughout life.

As an entering student, you become eligible for this honors program by scoring above 600 on the SAT I verbal test or the CEEB history achievement test; thereafter, you must have a GPA of 3.25 or higher or be recommended by a member of the department for admission. Admission to the degree program requires that you submit a written petition to the department no later than the end of your junior year.

Completion of the program requires, in addition to fulfillment of the B.A. requirements,

- a GPA of 3.3 or higher in history and a cumulative GPA of 3.25 or higher
- 9 credits of honors courses, including 6 in history
- satisfactory completion in HIST K499 of an honors thesis
- satisfactory defense of the honors thesis.

Hospitality Management (B.S.)

Program: B.S.
Department of Consumer and Family Sciences
College of Health and Human Services

Neff Hall 330 ~ 260-481-6562 ~ www.ipfw.edu/cfs

The BS - Hospitality Management studies are designed to offer students the opportunity to learn and develop the skills and competencies they will need to become successful leaders and entrepreneurs in one of the world's fastest growing industries.

To apply for the BS Hospitality Management, students must meet IPFW degree seeking requirements and complete the prerequisite courses outlined in the Pre-Hospitality Management (Pre-HM) requirements, earning 30 credits and attain a cumulative GPA of 2.0 or higher.

General Program Requirements:

Successfully complete 124 credits in the prescribed Pre-HM and HM Program.

- **Attain a cumulative IPFW GPA of 2.0 or above.**
- Complete the HM degree requirements with a cumulative GPA of 2.20 or higher in HTM, FNN, THTR and Language required course work, including any courses taken in COM and OLS as part of the eighteen credit hours in Hospitality Mangement elective courses.
- Complete all the HM degree requirements within 8 years of first registration into the HM program.
- Abide by the rules and regulations specified in the Bulletin, requirements for degrees (see part 8) and the College of Health and Human Services (see part 4) in effect at the time of admission. In addition students enrolled in the BS hospitality Management are required to follow the CFS student handbook regulations in effect which are available on line at: http://www.ipfw.edu/cfs/assets/pdf/Student%20Handbook.pdf

Pre-Hospitality Management (Pre-HM) Requirements:

Students applying for the BS hospitality Management must submit as part of their application, proof of work experience with an HTM Work Experience Portfolio. The purpose of the work experience is for students to be in a position to demonstrate a suitable work ethic and customer care that indicates a potential to work in the hospitality industry. This work experience is non-credit bearing.

Pre-HM courses are mostly prescribed with the exception of some General Education area II and area IV courses. Prescribed Pre-HM courses include all Gen Ed I, III and V areas as well as the HTM 100, Introduction to Hospitality and Tourism Management. Pre-HM required courses are chosen to establish a sound foundation in English language, mathematical skills adapted to business as well as particularly important scientific areas on which HM Major courses build.

Hospitality Management Major, Requirements

To progress from Pre-Hospitality Management (Pre-HM) and gain admission in the Hospitality Management Major, students must: successfully complete 30 credits in the prescribed Pre-HM courses attain a cumulative GPA of 2.00 or higher in these prescribed Pre-HM courses and present the Work Experience Portfolio as described above along with their application. Admission to the HM Major is not limited, applications are reviewed by the department faculty.

Once admitted, students follow a prescribed progression in their second and third year. The fourth year of the program offers students opportunities to choose amongst HM electives and/or special areas of interest and an HR specialization.

To graduate, a student admitted to the HM major must complete the required courses as listed below in the chronological order thus completing all HM level 2 before starting HM level 3 and hence forth completing all HM level 3 before starting HM level 4 courses while also respecting the co- and prerequisites.

Pre-Hospitality Management Requirements

To apply for the Hospitality Management Bachelor of Science program, students must meet IPFW degree seeking requirements and complete the prerequisite courses outlined hereunder earning 30 credits and attain a cumulative GPA of 2.0 or higher in the prescribed Pre-HM courses.

IPFW General Education Requirements Credits: 30

Area I—Linguistic and Numerical Foundations Credits: 9

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
- STAT 12500 - Communicating with Statistics Cr. 3.

Area II - Natural and Physical Sciences - Credits: 6

 See Part II General Education Requirements for approved courses - Cr. 3

- BIOL 10000 - Introduction to the Biological World Cr. 3.

Area III - The Individual, Culture and Society - Credits: 6

- OLS 25200 - Human Relations in Organizations Cr. 3.
- PSY 24000 - Introduction to Social Psychology Cr. 3.

Area IV - Humanistic Thought - Credit: 6

See Part II General Education Requirements for Approved Courses - Cr. 3

- PHIL 12000 - Critical Thinking Cr. 3.

Area V - Creative and Artistic Expression - Credits: 3

- THTR 13400 - Fundamentals of Performance Cr. 3.

Pre - Hospitality Management - Pre-HM Courses

Includes General Education Requirement courses: 1 course from Area 2 and 1 course from Area 4 - Cr. 6

- BIOL 10000 - Introduction to the Biological World Cr. 3.
- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
- HTM 10000 - Introduction to the Hospitality and Tourism Industry Cr. 1-3.
- OLS 25200 - Human Relations in Organizations Cr. 3.
- PHIL 12000 - Critical Thinking Cr. 3.
- PSY 24000 - Introduction to Social Psychology Cr. 3.
- STAT 12500 - Communicating with Statistics Cr. 3.

Hospitality Management Major Required Courses

HM Level 2:

- ECON E200 - Fundamentals of Economics Cr. 3.
- FNN 20300 - Foods Selection and Preparation Cr. 3.
- FNN 20400 - Food, History & Culture Cr. 3.
- HTM 18100 - Lodging Management Cr. 3.
- BUS A200 - Fundamentals in Accounting Cr. 3.
- HTM 19100 - Sanitation and Health in Foodservice, Lodging, and Tourism Cr. 3.
- THTR 13400 - Fundamentals of Performance Cr. 3.

One of the following Credits: 4

- FREN F111 - Elementary French I Cr. 4.
- GER G111 - Elementary German I Cr. 4.
- SPAN S111 - Elementary Spanish I Cr. 4.

One of the following credits: 4

- FREN F112 - Elementary French II Cr. 4.
- GER G112 - Elementary German II Cr. 4.
- SPAN S112 - Elementary Spanish II Cr. 4.

HM Level 3:

HTM 31200 may be replaced by OLS 37600

- FNN 30400 - Nutrition's Place in Hospitality Cr. 3.
- HTM 23100 - Hospitality and Tourism Marketing Cr. 3.
- HTM 30200 - Hospitality and Tourism Industry Internship Cr. 1-2.
- HTM 31000 - Food and Beverage Operation Management Cr. 3.
- HTM 31200 - Human Resources Management for the Service Industries Cr. 3.
- HTM 32200 - Hospitality Facilities Management Cr. 3.
- HTM 37100 - Introduction to Tourism Cr. 3.

One of the following credits: 3

- FREN F203 - Second-Year French I Cr. 3.
- GER G203 - Second-Year German I Cr. 3.
- SPAN S203 - Second-Year Spanish I Cr. 3.

One of the following credits: 3

- FREN F204 - Second-Year French II Cr. 3.
- GER G204 - Second-Year German II Cr. 3.
- SPAN S204 - Second-Year Spanish II Cr. 3.

HM Level 4:

Two additional courses required for Level 4. Student must see advisor.

- HTM 41000 - Dinner Series, Capstone Cr. 3.
- HTM 41100 - Hospitality and Tourism Law Cr. 3.
- HTM 43000 - Hospitality Strategic Management Cr. 3.
- HTM 49100 - Beverage Management Cr. 2.

One of the following credits: 3

- FREN F326 - French in the Business World Cr. 3.
- GER G315 - Business German Cr. 3.
- SPAN S315 - Spanish in the Business World Cr. 2-3.

One more Foreign Language Class to be determined.

Hospitality Management Major Elective Courses

In addition to the prescribed courses the student much complete 18 credit hours in elective hours. The BS Hospitality Management requires a student to either take 9 HM credits from the list hereunder or 3 HM +9 credits in a specialization field as per the list hereunder. The remainder of the electives may be freely chosen within IPFW courses with respect to the rules that apply to these courses.

HTM Electives:

- CFS 39900 - Special Issues Cr. 1-3.
- FNN 40300 - Advanced Nutrition: Food from Farm to Fork Cr. 3.
- HTM 31400 - Franchising Cr. 3.
- HTM 31500 - Club Management and Operations Cr. 3.
- HTM 34100 - Cost Controls in Foodservice and Lodging Cr. 3.
- HTM 38300 - Resort, Cruise, and Entertainment Operations Cr. 3.
- HTM 42000 - Event Management Cr. 3.
- OLS 37600 - Human Resources Issues Cr. 3.

HR Specialization Electives:

- OLS 34200 - Interviewing Strategies in Organizations Cr. 3.
- OLS 37800 - Labor Relations Cr. 3.
- OLS 46800 - Personnel Law Cr. 3.
- OLS 47600 - Compensation Planning and Management Cr. 3.
- OLS 47900 - Staffing Organizations Cr. 3.

Organization Communication Specialization:

- COM 21200 - Approaches to the Study of Interpersonal Communication Cr. 3.
- COM 25000 - Mass Communication and Society Cr. 3.
- COM 32000 - Small Group Communication Cr. 3.
- COM 32400 - Introduction to Organizational Communication Cr. 3.

Total Credits: 124

Human Services Bachelor of Science (B.S.)

Program: B.S. degree
Department of Human Services
College of Health and Human Services

Neff Hall 130 ~ 260-481-6424 ~ www.ipfw.edu/hs/

Students who complete the bachelor's degree curriculum will:

1. be able to interpret and extrapolate from basic concepts and principles.

2. be able to discuss practicing theories and design treatment plans utilizing the appropriate theory.

3. be able to demonstrate, analyze and evaluate Human Services helping skills.

4. demonstrate an understanding of organizational structure of their internship.

5. use a variety of computer programs necessary in HSRV programs.

6.   be able to demonstrate competency in two concentration areas related to Human Services.

7.   be able to engage in a service learning project in the community.

8.   be able to discuss implications of diversity fir their clinical practice.

9.   be able to demonstrate research methods and utilize SPSS to analyze data.

10.   think clinically and critically, demonstrating this in professionally-written reports.

11.   analyze and judge their own values, predicting how these values will affect their professional experiences and they will differentiate between those values that they

can put aside and those that they will not alter. Students write a value paper differentiating their values from someone they interview. Students will examine how each

value was developed and tested.

12.   be able to apply ethical standards, personal integrity and professional ethics in a human services setting.

The Bachelor of Science in Human Services is a degree that requires a total of 125 semester credit hours. The program is designed to prepare students to become human service professionals who can meet the needs of clients and communities within a diverse society. Examples of job roles that graduates of the degree would be qualified to fill include group home supervisor, substance abuse prevention educator, case manager, social service agency staff/manager, and psychiatric rehabilitation worker/supervisor, among others.

Call the Human Services office at 260-481-6424 for additional information and to be assigned an advisor.

Admission

To gain entry into this program, you must meet all of the requirements for admission to IPFW and comply with internship agency requirements for internship placements. Students should contact the Department of Human Services at 260-481-6424 for more information and to be assigned an advisor.

Human Services Admission Requirements
(Effective January 1, 2010)

Students are admitted to this degree program as follows:

- Students new to IPFW must complete an application for undergraduate admission and meet the criteria for admission to the university. Students who have ever taken courses at IPFW should apply for re-entry to the university if they have not been actively enrolled at IPFW for one year or greater. Contact the Office of Admissions at 260-481-6812.

- Students who have completed the requirements for the Associate of Science in Human Services at IPFW, Ivy Tech Community College, or another Human Services program from another accredited institution, and have a grade point average (GPA) of at least 2.0 with no grades of D or F, are enrolled in the program with junior status.

- Students who have not completed the requirements for the Associate of Science in Human Services may be admitted to IPFW as a Pre-Human Services student. Pre-Human Services students may combine studies at

IPFW and Ivy Tech in order to complete the requirements of the Fort Wayne Ivy Tech Community College A. S. in Human Services and may also work on B. S. courses.

- All students will be required to meet the regular IPFW and Purdue University admission standards, as presented in the IPFW Bulletin.
- The Bachelor's degree requires a Senior Internship at a nonprofit organization.

Students must comply with agency requirements for internship placements. A live interview is required. The agency may require proof of certain immunizations and/or certification in CPR. Many clinical agencies now require that students provide them with a criminal history check with the Indiana State Police prior to acceptance as an intern and have varying policies regarding what constitutes an acceptable history for placement with their client population.

Anyone with a record of a sex crime against a child may not be placed into a clinical in which there is an actual or potential possibility that they will come into contact with children (IC5-2-12-12). Students who cannot be placed in clinicals with reasonable effort as a result of their criminal histories and subsequently cannot complete the program requirements may be unable to graduate from the program.

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

Must complete the following courses with a grade of C or better.

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
- STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

- BIOL 10000 - Introduction to the Biological World Cr. 3.

Area III—The Individual, Culture, and Society Credits: 6

Must complete the following courses with a grade of C- or better.

- PSY 12000 - Elementary Psychology Cr. 3.
- SOC S161 - Principles of Sociology Cr. 3.

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

- Philosophy elective Cr. 3

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis Credits: 6

Must complete the following courses with a grade of C- or better.

See Part 2 General Education Requirements for approved courses

- Psychology elective Cr. 3.
- Sociology elective Cr. 3

Human Services Core Credits: 32

Must complete the following courses with a grade of C- or better.

- HSRV 10000 - Introduction to Human Services Cr. 3.
- HSRV 10300 - Helping Relationship Techniques Cr. 3.
- HSRV 10500 - Basic Interviewing Skills Cr. 3.
- HSRV 20000 - Behavioral Therapies Cr. 3.
- HSRV 20100 - Clinical in Case Study Method I Cr. 2.
- HSRV 21100 - The Dynamics of Group Behavior Cr. 3.
- HSRV 25100 - Clinical in Case Study Method II Cr. 2.
- HSRV 31500 - Introduction to Theories and Therapies Cr. 3.
- HSRV 32000 - Case Methods Cr. 3.
- HSRV 33000 - Psychopharmacology for Human Services Cr. 1.
- HSRV 40000 - Internship I Cr. 1-4.
  (Fall only)
- HSRV 40100 - Internship Seminar I Cr. 1.
  (Fall only)
- HSRV 45000 - Internship II Cr. 2-4.
  (Spring only)
- HSRV 45100 - Internship Seminar II Cr. 1.
  (Spring only)
  Please see HSRV Student Manual for pre-requisites and co-requisites.

Required supporting courses Credits: 33

- ENG W233 - Intermediate Expository Writing Cr. 3.
  (Grade of C or better)
- MA 15300 - Algebra and Trigonometry I Cr. 3.
- POLS Y103 - Introduction to American Politics Cr. 3.
  (Grade of C- or better for the following courses.)
- PSY 35000 - Abnormal Psychology Cr. 3.
- SOC S352 - Methods of Social Research Cr. 3.
  (Fall only)
  And
  Two Sociology electives - one 300/400 level Cr. 6.

Choose from the following Credits: 3

- COM 30300 - Intercultural Communication Cr. 3.
- NUR 30900 - Transcultural Healthcare Cr. 3.

Choose from the following Credits: 3

Course must be completed with a grade of C- or better.

- PSY 23500 - Child Psychology Cr. 3.
- PSY 24000 - Introduction to Social Psychology Cr. 3.
- PSY 36900 - Development Across the Lifespan Cr. 3.
  (Either PSY 235 of PSY 369 may be taken for credit, NOT BOTH)

Choose from the following Credits: 3

Course must be completed with a grade of C- or better.

- PSY 31400 - Introduction to Learning Cr. 3.
- PSY 32900 - Psychobiology II: Principles of Psychobiological Psychology Cr. 3.
- PSY 41600 - Cognitive Psychology Cr. 3.

Human Service Concentration Credits: 24

Student works with advisor to identify a group of courses from human services and related disciplines that support a concentration in such areas as addictions, psychiatric rehabilitation, gerontology, child/adolescent services, activity/recreational therapies, and developmental disabilities. These courses prepare students to graduate with knowledge and skills directly applicable to their chosen area of interest within the human services profession.

Students' must complete 12 credits in concentration Area A and 12 credits in concentration Area B.   See your academic advisor for approval of your chosen concentration areas and for approval of courses under each concentration area.

Concentration Area A (12 CR.)

Students will choose a concentration in one of the following areas: Business and Administration, Communications and Public Relations, Computers and Technology, Divinity, Early childhood Education, Ecology, Ethics, Ethics and Cultural Studies, Homeless, International Studies, Marketing and Fundraising, Medical and Healthcare, Missionary Work, Peace Studies, Political Science, Professional Writing, Public Affairs, Sign Language, Teaching English as a New Language or Women's Studies.

Concentration Area B (12 CR.)

Students will choose a concentration in one of the following areas: Adolescents, Children, Disabled and Special Needs, Diversity, Domestic Violence and Gender Roles, Family, Health and Well Being, Justice System, Leadership and Management, Gerontology, Spanish, or Substance Abuse.

Industrial Engineering Technology (B.S.)

Program: B.S.
Department of Manufacturing and Construction Engineering Technology and Interior Design
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 221 ~ 260-481-4127 ~ www.mcet.ipfw.edu

The student learning outcomes for the degree are as follows:

- An appropriate mastery of the knowledge, techniques, skills and modern tools of the appropriate ET program.
    - o Technical expertise in quality, meteorology, advanced SPC, SQC, TQM, ISO standards, and design of experiments.
    - o Technical expertise in ergonomics, work methods design, optimization, engineering economy, and cost estimating.
    - o Technical expertise in facilities layout, production planning and control, queuing theory, modeling, and simulation.
    - o Technical expertise in CAD, engineering graphics, GD&T, gage capability studies, and measurement uncertainty.
    - o Technical expertise in materials, manufacturing processes, design for manufacturing and assembly, and CNC machining.
- An ability to apply current knowledge and adapt to emerging applications of mathematics, science, engineering and technology.
- An ability to conduct, analyze and interpret experiments and apply experimental results to improve processes.
- An ability to apply creativity in the design of systems, components or processes.
- An ability to function effectively on teams.
- An ability to identify, analyze and solve technical problems.
- An ability to communicate effectively.
- A recognition of the need for, and an ability to engage in lifelong learning.
- An ability to understand professional, ethical and social responsibilities.
- A knowledge of and respect for diversity, contemporary societal and global issues related to the profession.
- A commitment to quality, timeliness, and continuous improvement.

This program prepares graduates with knowledge, technical, analytical, and managerial skills necessary to develop, implement, and improve integrated systems in manufacturing and service industries that include people, materials, equipment, information, and energy. Graduates will be prepared for careers in higher levels of system design, integration, and management. To earn the B.S. with a major in industrial engineering technology, you must fulfill the requirements of IPFW (see Part 8), the College of Engineering, Technology, and Computer Science (see Part 4), and of the A.S., and complete the following credits, earning a grade of C or better in those courses that serve as prerequisites:

IPFW General Education Requirements

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis

- ENG W421 - Technical Writing Projects Cr. 1-3.

Required Core and Concentration (Major) Courses

- IET 30400 - Advanced Metrology Cr. 3.
- IET 35000 - Engineering Economy Cr. 3.
- IET 36200 - Technological Optimization Cr. 3.
- IET 36900 - Manufacturing Simulation Cr. 3.
- IET 40100 - Manufacturing Process Planning Cr. 3.
  Grade of C or better required
- IET 45400 - Statistical Process Control Cr. 3.
- IET 48000 - Cost Estimating and Design Cr. 3.
- ET 19000 - Statics Cr. 3.
- MET 33000 - Introduction to Fluid Power Cr. 3.
- MET 34700 - Programming of Automation Systems Cr. 3.

Additional Required Technical Courses

- CHM 11100 - General Chemistry Cr. 3.
- ECET 21100 - Electrical Machines and Controls Cr. 3.
- ECET 36100 - Introduction to PLC and Pneumatic Systems Cr. 4.
- MA 22700 - Calculus for Technology I Cr. 4.
- IET 47800 - Lean Manufacturing and Design Cr. 3.

Additional Required Support Courses

- COM 32300 - Business and Professional Speaking Cr. 3.

Additional Core and Concentration (Major) Electives

- Any one course from IET or MET or a course approved by an IET advisor Credits: 3

Total including 64 from A.S. Credits: 129

Information Systems (B.S.)

Program: B.S.
Department of Computer and Electrical Engineering Technology & Information Systems and Technology
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 205 ~ 260-481-6338 ~ www.ceit.ipfw.edu

The student learning outcomes for the degree are as follows:

- An ability to apply knowledge of computing and mathematics appropriate to the discipline.
- An ability to apply knowledge of computing and mathematics appropriate to the discipline.
- An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs.
- An ability to function effectively on teams to accomplish a common goal.
- An understanding of professional, ethical, legal, security and social issues and responsibilities.
- An ability to communicate effectively with a range of audiences.
- An ability to analyze the local and global impact of computing on individuals, organizations, and society.
- Recognition of the need for and an ability to engage in continuing professional development.
- An ability to use current techniques, skills, and tools necessary for computing practice.
- An understanding of processes that support the delivery and management of information systems within a specific application environment.

The Bachelor of Science in Information Systems prepares you for a career as a computer professional as well as for possible graduate study.

The CEIT department also offers the Associate of Science with a major in information systems, a Bachelor of Science with a major in computer engineering technology (CPET) and an Associate and Bachelor of Science with a major in electrical engineering technology. In addition to the degrees, the department offers a minor in electronics, and minor in information systems and certificate programs in computer-controlled systems, electronic communications, power electronics systems, and computer networking.

In addition to satisfying the requirements of IPFW (see Part 8) and the College of Engineering, Technology, and Computer Science (see Part 4), you must complete the courses required for the A.S. with a major in information systems (see above) and the following additional courses. Only courses in your major field for which you have earned a grade of C or better can be applied to the degree or used to satisfy prerequisites. A maximum of 10 credits of D grades (including any from the A.S. program) will be accepted in other courses.

- Credits in approved second course in business or economics Credits: 3
- Credits in approved advanced communication course Credits: 3
- Additional credits in approved electives Credits: 10

IPFW General Education Requirements Credits: 9

Area IV—Humanistic Thought Credits: 3

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses

- CS 30600 - Computers in Society Cr. 3.

Advanced Core Requirements Credits: 21

- IST 34000 - Business Process Management Cr. 3.
- IST 35000 - IT Infrastructure Cr. 3.
- IST 36000 - Enterprise Systems Cr. 3.
- IST 37000 - Systems Analysis and Design Cr. 3.
- IST 44000 - Introduction to Human-Computer Interaction Cr. 3.
- IST 46600 - Information Systems & Technology Strategy, Management & Acquisition Cr. 3.
- IST 46700 - Information Systems Project Management Cr. 3.

Supporting Courses Credits: 18

- MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.

One of the following Credits: 3

- STAT 30100 - Elementary Statistical Methods I Cr. 3.
- STAT 51100 - Statistical Methods Cr. 3.
- ECON E270 - Introduction to Statistical Theory in Economics and Business I Cr. 3.

One of the following approved Business or Economics Credits:3

- BUS A202 - Principles of Managerial Accounting Cr. 3.
- ECON E202 - Introduction to Macroeconomics Cr. 3.

Approved Advanced Communication Course Credits: 3

Any COM or ENG Wxx course with a prerequisite of COM 114 or ENG W131

Two of the following approved Advanced Buisness Elective Credits: 6

- BUS F301 - Financial Management Cr. 3.
- BUS M301 - Marketing Management in a Competitive Environment Cr. 3.
- BUS P301 - Managing Operations in a Competitive Environment Cr. 3.
- BUS Z302 - Management of Organizations and People Cr. 3
- BUS D300 - International Business Administration Cr. 3.

Approved Concentration Elective Credits: 15

See Computer and Electrical Engineering Technology & Information Systems and Technology department for details

Total Including 61 from A.S. Credits: 124

Interior Design (B.S.)

Program: B.S.
Department of Manufacturing & Construction Engineering Technology and Interior Design
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 221 ~ 260-481-4127 ~ www.mcet.ipfw.edu

The student learning outcomes for the degree are as follows:

- Students are able to advance their learning.
    - Be able to interact with multiple disciplines
    - Have exposure to a variety of business
    - Have opportunities for design work experience
- Students have the attitudes, traits, and values of professional responsibility, accountability, and effectiveness.
    - Have professional ethics and the role of ethics in the practice of interior design.
    - Have environmental ethics and the role of sustainability in the practice of interior design.
    - Have a global perspective and approach to thinking and problem solving.
    - Have critical, analytical, and strategic thinking abilities.
    - Be able to have creative thinking (exhibit a variety of ideas, approaches, concepts with originality and elaboration).
    - Have the ability to think visually and volumetrically.
    - Have professional discipline skills (for example, time management, organizational skills).
    - Have active listening skills leading to effective interpretation of requirements .
- Students have a foundation in the fundamentals of art and design; theories of design, green design, and human behavior; and discipline-related history.
    - Be able to utilize design elements (for example, space, line, mass, shape, texture) and principles (for example, scale, proportion, balance, rhythm, emphasis, harmony, variety).
    - Be able to utilize color principles, theories, and systems (for example, additive and subtractive color; color-mixing; hue, value, and intensity; the relationship of light and color).
    - Be able to utilize theories of design and design composition.
    - Understanding principles of lighting design (for example, color, quality, sources, use).
    - Understanding of theories of human behavior in interior environments.
    - Understanding of principles and theories of sustainability.
    - Understanding of the history of art, architecture, interior and finishes.
- Students understand and apply the knowledge, skills, process, and theories of interior design.
    - Apply 2-dimensional design elements and principles in interior design projects.
    - Apply 3-dimensional design elements and principles to the development of the spatial envelope (for example, volumes of space, visual continuity and balance, visual passages, interconnecting elements).
    - Select and apply color in interior design projects.
    - Have programming skills.
    - Have competent schematic design, concept development, and problem solving skills.
    - Have competent design development skills.
    - Have competent skills in preparing drawings, schedules, and specifications as an integrated system of contract documents, appropriate to project size and scope and sufficiently extensive to show how design solutions and interior construction are related.
    - Have design development skills.
- Students communicate effectively.
    - Be competent in drafting and lettering, both manual and computer-aided techniques.

- o Be competent in illustrative sketching.
- o Be competent in presentation of color, materials, and furnishings (for example, sample boards, collages, mock-ups, digital representations).
- o Be able to express ideas clearly in oral presentations and critiques.
- o Be able to communicate clearly in writing (using correct spelling, grammar, and syntax) in specifications, schedules, and contracts and other business-related documents such as project programs, concept statements, reports, research papers, resumes, and correspondence.
- o Be able to render by any medium, manual or computer-generated, that successfully communicates the design intent.
- o Be able to communicate 3-dimensional space and form, such as in perspectives, pralines, and models (computer-generated or manual).
- o Have the ability to apply the metric system to design work.
- o Be able to communicate through alternative presentation techniques (for example, audio, electronic, film, photography, slides, video).
- Students are able to design within the context of building systems. Students are able to use appropriate materials and products.
  - o Understanding that design solutions affect and are impacted by construction system and method, mechanical, electrical, plumbing/HAVC and other systems.
  - o Be able to select and apply materials and products appropriately on the basis of their properties and performance criteria.
  - o Have the knowledge of sources for materials and products.
  - o Understanding of the concept of sustainable building methods and materials.
  - o Have the knowledge of installation methods (for example, carpet, resilient flooring, wall covering).
  - o Understanding material maintenance requirements.
- Students are able to apply the laws, codes, regulations, standards, and practices that protect the health, safety, and welfare of the public.
  - o Understanding of the impact of fire and life safety principles on space planning.
  - o Have the ability of appropriate application of codes and regulations, barrier-free design guidelines, ergonomic and human factors data.
  - o Understanding of the impact on health and welfare of indoor air quality, noise and lighting.
  - o Demonstrate understanding of universal design concepts and principles.
- Students have a foundation in business and professional practice.
  - o Understanding of project management practices.
  - o Have the knowledge of certification, licensing, and registration requirements and professional design organizations.
  - o Understanding of basic business computer applications (for example, word processing, spreadsheets).
  - o Have the knowledge of business processes (for example, marketing, strategic planning, and accounting procedures).

This program prepares graduates to work as interior design professionals providing creative and project management services for a variety of clients including homeowners, business owners, institutions, manufacturers, and those planning special events. This program will be open to those who have completed an associate degree in interior design. Program elective courses allow students to develop a specialty area in theatre design or commercial equipment and kitchen design. Through the three-course senior design requirement, students will graduate with a specialty in one of the following areas: residential design, special populations - aging, healthcare design, education design, hotel design, restaurant design, or corrections design.

To earn the B.S. with a major in interior design, you must satisfy the requirements of IPFW (see Part 8), the College of Engineering, Technology, and Computer Science (see Part 4), and the A.S. degree program. You must earn a grade of C or better in each required INTR course, and complete the requirements listed below:

IPFW General Education Requirements

Area II—Natural and Physical Sciences Credits: 3

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society Credits: 3

- SOC S161 - Principles of Sociology Cr. 3.

Area IV—Humanistic Thought Credits: 3

See Part 2 General Education Requirements for approved courses

Area V—Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses

Core and Concentration (Major) Courses (36 credits)

- Interior Design Electives Credits: 6
  (department-approved courses)

- Interdisciplinary Design Topic Credits: 3
  (department-approved courses)

- Leadership/Communication Elective Credits: 3
  (department-approved courses)

- INTR 30600 - Interior and Furniture Styles I Cr. 3.
- INTR 30700 - Interior and Furniture Styles II Cr. 3.
- INTR 30800 - Interior Design II Cr. 3.
- INTR 30900 - Interior Design III Cr. 3.
- INTR 40000 - Interior Design Studio I Cr. 3
- INTR 40200 - Professional Practice Cr. 3.
- INTR 40400 - Interior Design Practicum Cr. 3.

Supporting Courses

- ENG W232 - Introduction to Business Writing Cr. 3.
- OLS 34200 - Interviewing Strategies in Organizations Cr. 3.
- VCD P476 - Three-Dimensional Computer Modeling Cr. 3

Total Credits: 60

Interpersonal and Organizational Communication (B.A.)

Program: B.A.
Department of Communication
College of Arts and Sciences

Neff Hall 230 ~ 260-481-6825 ~ www.ipfw.edu/comm/

The student learning outcomes for the degree are as follows:

- Be able to articulate the historical traditions of the discipline.
- Be aware of and skillful use in the use of new technologies relevant to the major.
- Be able to explain communication concepts and theories relevant to the major.
- Be able to explain, evaluate and apply the processes involved in productive conflict in the contexts (interpersonal, small group, organizational, mediated, public) relevant to the major.
- Demonstrate awareness of diverse perspectives.
- Be a competent reader, speaker, writer and listener.
- Evaluate interpersonal and group interactions.
- Communicate competently (effectively, appropriately, ethically) interpersonally and/or in groups.

This program helps you understand human communication and develop skill and sensitivity in speaking, listening, and participating in varied communication situations. Courses focus on theory and practice in communication tasks ranging from interviewing to addressing large audiences. The degree program helps you prepare for a career in government, sales, public relations, law, public and social service, personnel, or business and industrial communication.

The Department of Communication offers related bachelor's degree programs in media and public communication and a minor in media production for those students who want more courses in practical skills.

To earn the B.A. with a major in interpersonal and organizational communication, you must fulfill the requirements of IPFW (see Part 8), the College of Arts and Sciences (see Part 4), and the Department of Communication as listed below. You also must earn a minor in an appropriate discipline. Two courses in a major offered in the Department of Communication can also be counted in the required minor. If the minor is selected from an Arts and Sciences department, the courses may be used to satisfy distribution requirements in the College of Arts and Sciences.

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundation

- COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of following Credits: 3

- ENG W131 - Elementary Composition I Cr. 3.
- ENG W140 - Elementary Composition Honors Cr. 3.

One of following Credits: 3

- MA 15300 - Algebra and Trigonometry I Cr. 3.
- MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
- STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society

See Part 2 General Education Requirements for approved courses

- *Additional credits (Not in COM) in Area III Credits: 3*
- COM 25000 - Mass Communication and Society Cr. 3.
  Credits: 0
  (credits included in Major Courses, below)

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses   (not in COM)

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses (not in COM)

College of Arts and Sciences Requirements

English Writing

- ENG W233 - Intermediate Expository Writing Cr. 3.
  (or other approved writing course)

Foreign Language

- Requirements in Arts and Sciences Part B Credits: 14

Distribution (not in COM)

- Requirements in Arts and Sciences Part C Credits: 9

Cultural Studies

- Requirements in Arts and Sciences Part D Credits: 6

Core and Concentration (Major) Courses

2.0 required in all courses in the major.

- COM 12000 - Introduction to Communication Technology and Communication Fields Cr. 1.
- COM 21200 - Approaches to the Study of Interpersonal Communication Cr. 3.
- COM 25000 - Mass Communication and Society Cr. 3.
- COM 30000 - Introduction to Communication Research Methods Cr. 3.
- COM 30800 - Applied Communication Cr. 1.
- COM 31800 - Principles of Persuasion Cr. 3.
- COM 32000 - Small Group Communication Cr. 3.
- COM 32400 - Introduction to Organizational Communication Cr. 3.
- COM 48000 - Senior Seminar in Communication Cr. 1.

Credits from among the following: 9

- COM 30300 - Intercultural Communication Cr. 3.
- COM 31000 - Family Communication Cr. 3.
- COM 32500 - Interviewing: Principles and Practice Cr. 3.
- COM 41000 - Gender Roles and Communication Cr. 3.
- COM 47100 - Communicating Peace Cr. 3.
- COM 49100 - Special Topics in Communication Cr. 1-3.

Credits from among the following: 3

- COM 50700 - Introduction to Semiotics Cr. 3.
- COM 50800 - Nonverbal Communication in Human Interaction Cr. 3.
- COM 51200 - Theories of Interpersonal Communication Cr. 3.
- COM 51600 - Analysis of Persuasive Messages Cr. 3.
- COM 51800 - Theories of Persuasion Cr. 3.
- COM 52000 - Small Group Communication Cr. 3.
- COM 52300 - Communication in Personal Relationships Cr. 3.
- COM 52500 - Advanced Interviewing Cr. 3.
- COM 57400 - Organizational Communication Cr. 3.

Minor and Elective Courses

- Credits in approved minor (with grades of C or higher) Credits: 12–21
- Sufficient additional credits to bring the total to 124.

Total Credits: 124

Labor Studies (B.S.)

Division of Labor Studies
Program Offered: B.S.L.S.

Kettler Hall G28 ~ 260-481-6831 ~ www.labor.iu.edu

 The student learning outcomes for the degree are not available for this degree, contact the program office.

To earn the Bachelor of Science in Labor Studies, you must fulfill the requirements of IPFW (see Part 8) and successfully complete the following courses.

Program Requirements

Credits from the Labor Studies Core Credits: 15

Additional Credits in Labor Studies Courses Credits: 27

Required Areas of Learning

Labor Studies is a university-wide degree program, certified through Indiana University's School of Social Work. The program follows the same curriculum requirements throughout Indiana University.

Arts and Humanities (12 Credits)

- Afro-American Studies
- Classical Studies
- Communication
- Comparative Literature
- English (except R150 and W130)
- Film
- Fine Arts
- Folklore
- Foreign Language
- History
- Journalism
- Music
- Philosophy
- Religion
- Theatre
- Visual Communication and Design

Science and Mathematics (15 Credits)

- Credits in Computer Science required Credits: 3
- Credits from at least two different subjects from the courses listed Credits: 12

- Astronomy

- Biology
- Chemistry
- Computer Science (includes BUS K211, K212, K213, K215, and K216)
- Entomology
- Forestry and Natural Resources
- Geology
- Hortidulture
- Mathematics (except 109, 111, and 113)
- Physics
- Statistics
- ANTH B200 - Bioanthropology Cr. 3.
- ANTH E445 - Medical Anthropology Cr. 3.
- GEOG G107 - Physical Systems of the Environment Cr. 3.
- GEOG G109 - Weather and Climate Cr. 3.
- GEOG G315 - Environmental Conservation Cr. 3.
- ECON E270 - Introduction to Statistical Theory in Economics and Business I Cr. 3.
- PSY 12000 - Elementary Psychology Cr. 3.
- PSY 20100 - Introduction to Statistics in Psychology Cr. 3.
- PSY 31000 - Sensory and Perceptual Processes Cr. 3.
- PSY 31400 - Introduction to Learning Cr. 3.
- PSY 32900 - Psychobiology II: Principles of Psychobiological Psychology Cr. 3.
- PSY 41600 - Cognitive Psychology Cr. 3.

Social and Behavioral Sciences Area of Learning Credits: 12

- Credits in economics is required (ECON E200 or E201 recommended), L230 meets requirement.
- Credits from at least two different subjects below Credits: 9

- Anthropology
- Economics
- Geography
- Linguistics
- Psychology
- SPEA J101 - The American Criminal Justice System Cr. 3.
- WOST W210 - Introduction to Women's Studies Cr. 3.

Additional Credits from One Area of Learning Credits: 12

Electives Credits: 27

Note

You must earn a minimum of 20 credits after admission to labor studies and may apply toward the degree no more than 21 credits in a single subject other than labor studies. At least 30 of your credits must be in 300/400-level courses, including at least 12 credits in labor studies courses. You must complete at least 24 credits while enrolled as an IU student.

Total Credits: 120

Mathematics (B.S.)

Program Offered: B.S.
Department of Mathematical Sciences
College of Arts and Sciences

Kettler Hall 200 ~ 260-481-6821 ~ www.ipfw.edu/math

The student learning outcomes for the degree are as follows:

- Students who complete the undergraduate mathematics major should be able to reason mathematically and should be good problem solvers. Students should understand the role mathematics has played in solving important problems in a variety of disciplines, e.g. physics, engineering, and business.
- In addition to 1. above, students who complete the Mathematics option should understand the fundamental concepts in algebra and analysis. They should understand the value of mathematical proofs and should be able to do simple proofs.
- In addition to 1. above, students who complete the Actuarial Science option should have had sufficient preparation in calculus, linear algebra, probability, and statistics to pass the preliminary Actuarial Science examinations.
- In addition to 1. above, students who complete the Mathematics Teaching option should have mastered the fundamental concepts necessary to obtain certification to teach mathematics in the secondary schools.

Programs leading to the Bachelor of Science help you prepare for employment in business and industry, teaching in secondary schools, or study for advanced degrees. As a mathematics major you choose one of six options: actuarial science, business, computing, mathematics, mathematics teaching, or statistics.

To earn a B.S. with a major in mathematics, you must satisfy the requirements of IPFW (see Part 8), the College of Arts and Sciences (see Part 4), and the Department of Mathematical Sciences. Required course work appears below.

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

- MA The quantitative-reasoning requirement is satisfied by mathematics courses below. Credits: 0
- COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of the following Credits: 3

- ENG W131 - Elementary Composition I Cr. 3.
- ENG W140 - Elementary Composition Honors Cr. 3.

Area II—Natural and Physical Sciences

See Part 2 General Education Requirements for approved courses

- Includes two laboratory courses *(The science courses must be selected from a list approved by the department.)* Credits: 11

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (not in MA) Credits: 3

See Part 2 General Education Requirements for approved courses

College of Arts and Sciences Requirements

English Writing

- ENG W233 - Intermediate Expository Writing Cr. 3.
  (or other approved writing course)

Foreign Language

Requirements in Arts and Sciences Part B Credits: 8

Core and Concentration (Major) Courses

Of the mathematics courses numbered below 261, only 165, 166, and 175 apply toward the degree; statistics courses must be numbered 490 or higher to be counted. You must have a grade-point average of 2.0 or better with at most one passing grade less than 1.5 in courses used to fulfill the major requirements.

- CS 16000 - Introduction to Computer Science I Cr. 4.
- MA 16500 - Analytic Geometry and Calculus I Cr. 4.
  and
- MA 16600 - Analytic Geometry and Calculus II Cr. 4.
- MA 26300 - Multivariate and Vector Calculus Cr. 4.
- MA 35100 - Elementary Linear Algebra Cr. 3.

Choose one of the following:

- MA 17500 - Introductory Discrete Mathematics Cr. 3.
- MA 27500 - Intermediate Discrete Math Cr. 3.

Option Courses (see below) Credits: 46–56

General Elective Courses

- Sufficient additional credits, if necessary, to bring the total to 124

Total Credits: 124

Actuarial Science Option

This option, designed in consultation with professionals from the insurance industry, includes courses that help you prepare for a variety of positions in that field. In particular, it helps you prepare for the first of the series of examinations by the Society of Actuaries. Additional information is available from the department.

- Credits in three electives selected from a list of courses approved by the department Credits: 9
- Credits in electives (two additional finance courses, BUS F302 and F420 highly recommended) Credits: 13-16
- BUS A201 - Principles of Financial Accounting Cr. 3.
- BUS A202 - Principles of Managerial Accounting Cr. 3.
- BUS F301 - Financial Management Cr. 3.
  (before enrolling in F301, you must complete the following with grades of C or better: BUS A201-A202, CS 160, ECON E201-E202, MA 165, and STAT 511)
- ECON E201 - Introduction to Microeconomics Cr. 3.
- ECON E202 - Introduction to Macroeconomics Cr. 3.
- STAT 51100 - Statistical Methods Cr. 3.
- STAT 51200 - Applied Regression Analysis Cr. 3.
- STAT 51600 - Basic Probability and Applications Cr. 3.
- STAT 51700 - Statistical Inference Cr. 3.

Business Option

This option is designed for students who plan to pursue a career in business or industry. In addition to obtaining useful mathematics and statistics tools, the student who completes this option will also receive a minor in business.

Option Specific Courses Credits: 21

- Credits in courses selected from a departmentally approved list (MA 363, 417/418, 441, 453, 511, 525, STAT 514, 517) Credits: 6
- MA 30500 - Foundations of Higher Mathematics Cr. 3.
- MA 31400 - Introduction to Mathematical Modeling Cr. 3.
- STAT 51100 - Statistical Methods Cr. 3.
- STAT 51200 - Applied Regression Analysis Cr. 3.
- STAT 51600 - Basic Probability and Applications Cr. 3.

Business Minor Credits: 22

- BUS A201 - Principles of Financial Accounting Cr. 3.
- BUS A202 - Principles of Managerial Accounting Cr. 3.
- BUS K211 - Spreadsheets for Business Cr. 1.
- BUS K212 - Introduction to Database Management Cr. 1.
- BUS K213 - Internet Literacy for Business Cr. 1.
- BUS L200 - Elements of Business Law Cr. 3.
- BUS W204 - Social, Legal, and Ethical Implications of Business Decisions Cr. 3.
- ECON E201 - Introduction to Microeconomics Cr. 3.
  (counted as a general education course in Area III)
- ECON E202 - Introduction to Macroeconomics Cr. 3.

Credits in two courses selected from the following list Credits: 6

- BUS D300 - International Business Administration Cr. 3.
- BUS F301 - Financial Management Cr. 3.
- BUS M301 - Marketing Management in a Competitive Environment Cr. 3.
- BUS P301 - Managing Operations in a Competitive Environment Cr. 3.
- BUS Z302 - Management of Organizations and People Cr. 3

General elective courses Credits: 10–13

Total Credits: 53-56

Computing Option

This option helps you prepare for computer-related careers for which a strong mathematical background is advantageous. The student who completes this option will also receive a minor in computer science.

Option Specific Courses Credits: 15

- MA 30500 - Foundations of Higher Mathematics Cr. 3.

One of the following Credits: 3

- STAT 51100 - Statistical Methods Cr. 3.
- STAT 51600 - Basic Probability and Applications Cr. 3.

One of the following Credits: 3

- MA 44100 - Real Analysis Cr. 3.
- MA 45300 - Elements of Algebra Cr. 3.
- MA 51100 - Linear Algebra with Applications Cr. 3.
- MA 55600 - Introduction to the Theory of Numbers Cr. 3.
- MA 57500 - Graph Theory Cr. 3.

Two of the following Credits: 6

- MA 441, 453, 511, 556, 575, STAT 511, or STAT 516 if not taken to satisfy above requirements.
- MA 31400 - Introduction to Mathematical Modeling Cr. 3.
- MA 36300 - Differential Equations Cr. 3.
- MA 41700 - Mathematical Programming Cr. 3.
- STAT 51200 - Applied Regression Analysis Cr. 3.
- STAT 51700 - Statistical Inference Cr. 3.

Computer Science Minor Credits: 22

- CS 16100 - Introduction to Computer Science II Cr. 4.
- CS 26000 - Data Structures Cr. 3.
- CS 33100 - Introduction to C++ and Object-Oriented Programming Cr. 3.

Two of the following Credits: 6

- Select two courses from a departmentally approved list Credits: 6
- Credits in electives: 16–19
- CS 38400 - Numerical Analysis Cr. 3.
- CS 48600 - Analysis of Algorithms Cr. 3.
- CS 48800 - Theory of Computation Cr. 3.
- CS 54300 - Introduction to Simulation and Modeling of Computer Systems Cr. 3.
- CS 57200 - Heuristic Problem Solving Cr. 3.

Total Credits: 53-56

Mathematics Option

This option helps you prepare for graduate study in the mathematical sciences or for work in fields where a strong mathematical background is required.

Program Requirements

- MA 30500 - Foundations of Higher Mathematics Cr. 3.
- MA 36300 - Differential Equations Cr. 3.
- MA 44100 - Real Analysis Cr. 3.
- MA 45300 - Elements of Algebra Cr. 3.

One of the following Credits: 3

- Credits in courses selected from a departmentally approved list Credits: 6
- Credits in electives: 31–34
- STAT 51100 - Statistical Methods Cr. 3.
- STAT 51600 - Basic Probability and Applications Cr. 3.

Total Credits: 52-55

Mathematics Teaching Option

This option provides the mathematical preparation necessary for teaching secondary-school mathematics in Indiana. You are encouraged to choose and complete a teaching minor.

Prior to your junior year, you must successfully complete the Pre-Professional Skills Test (PPST) before admission to the teacher education program. The Praxis II Specialty Area Exam must be completed before or during the student-teaching semester, normally in your senior year.

Information on additional requirements for teacher certification is available in the department office.

Program Requirements

- MA 30500 - Foundations of Higher Mathematics Cr. 3.
- MA 45300 - Elements of Algebra Cr. 3.
- MA 56000 - Fundamental Concepts of Geometry Cr. 3.

One of the following Credits: 3

- Credits in courses selected from a departmentally approved list Credits: 6
- Credits in electives: 34–37
- STAT 51100 - Statistical Methods Cr. 3.
- STAT 51600 - Basic Probability and Applications Cr. 3.

Total Credits: 52–55

Statistics Option

This option helps you prepare for careers in business and industry and emphasizes the statistical methods used in decision making. It also provides entry-level preparation for an actuarial career.

Program Requirements

- Credits in courses selected from a departmentally approved list Credits: 6
- Credits in electives: 31–34
- STAT 51100 - Statistical Methods Cr. 3.
- STAT 51200 - Applied Regression Analysis Cr. 3.
- STAT 51400 - Design of Experiments Cr. 3.
- STAT 51600 - Basic Probability and Applications Cr. 3.
- STAT 51700 - Statistical Inference Cr. 3.

Note

The research certificate is described under Arts and Sciences in Part 3 of this Bulletin.

Total Credits: 52-55

Mathematics Teaching (B.S.)

Program: B.S.
Department of Mathematical Sciences
College of Arts and Sciences

Kettler Hall 200 ~ 260-481-6821 ~ www.ipfw.edu/math

The student learning outcomes for the degree are as follows:

- Students who complete the undergraduate Mathematics Teaching major should be able to reason mathematically and should be good problem solvers. Students should understand the role mathematics has played in solving important problems in a variety of disciplines, e.g., physics, engineering, and business.
- Students who complete the Mathematics Teaching major should have mastered the fundamental concepts necessary to obtain certification to teach mathematics in the secondary schools.

The B.S. program provides the mathematical preparation necessary for teaching secondary-school mathematics in Indiana and is designed to meet standards for teacher certification. Information on additional requirements for teacher certification is available in the department office. You are encouraged to choose and complete a teaching minor.

To earn a B.S. with a major in mathematics teaching, you must satisfy the requirements of IPFW (see Part 8), the College of Arts and Sciences (see Part 4), and the Department of Mathematical Sciences. Required course work appears below. (Note that you are not required to include foreign-language study.)

You should work closely with your academic advisor when choosing free electives and courses to meet the IPFW general-education requirements so as to ensure completion of the certification requirements set by the Indiana Professional Standards Board for teacher certification. Full information about teacher certification is available from the School of Education. To be certified, you must have a GPA of 2.00 or higher in the College of Arts and Sciences' general-education distribution areas of humanities and social and behavioral sciences. Additionally, you must have a GPA of 2.50 or higher in your teaching major of mathematical sciences and the professional education courses listed below and an overall GPA of 2.5 or higher. Each professional education course must be completed with a grade of C or better.

Prior to your junior year, the School of Education requires that you successfully complete EDUA F300, EDUC W200/M101, and EDUC K201 and the Pre-Professional Skills Test (PPST) before admission to the teacher education program. The PRAXIS II Specialty Area Exam must be completed before or during the student-teaching semester, normally in your senior year.

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

- **MA** - The quantitative-reasoning requirement is satisfied by mathematics courses below. Credits: 0

- COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of the following Credits: 3

- ENG W131 - Elementary Composition I Cr. 3.
- ENG W140 - Elementary Composition Honors Cr. 3.

Area II—Natural and Physical Sciences Credits: 11

See Part 2 General Education Requirements for approved courses

Includes two laboratory courses. *(*Science courses must be selected from list approved by the department.*)*

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (not in MA) Credits: 3

See Part 2 General Education Requirements for approved courses

College of Arts and Sciences Requirements

English Writing

- ENG W233 - Intermediate Expository Writing Cr. 3.

Core and Concentration (Major) Courses

Of the mathematics courses numbered below 261, only 165, 166, and 175 apply toward the degree; statistics courses must be numbered 490 or higher to be counted. You must have a grade-point average of 2.0 or better with at most one passing grade less than 1.5 in courses used to fulfill the mathematics concentration.

- Credits in courses selected from a departmentally approved list Credits: 6

- CS 11400 - Introduction to Visual Basic Cr. 3.
  or
- CS 16000 - Introduction to Computer Science I Cr. 4.
- MA 16500 - Analytic Geometry and Calculus I Cr. 4.
- MA 16600 - Analytic Geometry and Calculus II Cr. 4.
- MA 17500 - Introductory Discrete Mathematics Cr. 3.
- MA 26300 - Multivariate and Vector Calculus Cr. 4.

- MA 30500 - Foundations of Higher Mathematics Cr. 3.
- MA 35100 - Elementary Linear Algebra Cr. 3.
- MA 45300 - Elements of Algebra Cr. 3.
- MA 56000 - Fundamental Concepts of Geometry Cr. 3.

One of the following: Credits: 3

- STAT 51100 - Statistical Methods Cr. 3.
- STAT 51600 - Basic Probability and Applications Cr. 3.

Professional Education

Prior to being admitted to the teacher education program, you must complete the Initial Requirement courses and pass the PPST.

Initial Requirements

- EDUA F300 - Topical Exploration in Education Cr. 1-3.
- EDUC K201 - Schools, Society, and Exceptionality Cr. 1-3.
- EDUC M101 - Laboratory/Field Experience Cr. 0-3.
- EDUC W200 - Using Computers for Education Cr. 1.

Block I

- EDUC H340 - Education and American Culture Cr. 2-3.
- EDUC K206 - Teaching Methods for Students with Special Needs Cr. 1-3.
- EDUC M201 - Laboratory/Field Experience Cr. 0-3.
- EDUC P250 - General Educational Psychology Cr. 1-4.

Block II

- EDUC M301 - Laboratory/Field Experience Cr. 0-3.
- EDUC P253 - Educational Psychology for Secondary Teachers Cr. 1-4.
- EDUC X401 - Critical Reading in the Content Area Cr. 1-3.
- EDUC M448 - Methods of Teaching High School Mathematics Cr. 2-4.

Student Teaching

- EDUC M480 - Student Teaching in the Secondary School Cr. 1-16.
  Credits: 12
- EDUC M501 - Lab/Field Experience Cr. 0-3.
  Credits: 0

Middle School Certification (Recommended)

- EDUC M470 - Practicum Cr. 3-8.
  Credits: 4

General Elective Courses

Sufficient additional credits to bring the total to 124. Some may be restricted depending on choices for general education requirements. You are encouraged to acquire a teaching minor (see School of Education for information).

Total Credits: 124

Mechanical Engineering (B.S.M.E.)

Program: B.S.M.E.
Department of Engineering
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 327 ~ 260-481-6362 ~ www.engr.ipfw.edu

The student learning outcomes for the electrical degree are as follows:

- Graduates will demonstrate basic knowledge in chemistry, mathematics, physics, and engineering
- Graduates will demonstrate the ability to identify, formulate, and solve mechanical engineering problems
- Graduates will demonstrate the ability to design and conduct experiments, interpret and analyze data, and report results
- Graduates will demonstrate the ability to design a mechanical system, component, or process that meets desired specifications and requirements
- Graduates will demonstrate the ability to function on engineering and science laboratory teams as well as on multidisciplinary design teams
- Graduates will use modern engineering software tools and equipment to analyze mechanical engineering problems
- Graduates will demonstrate an understanding of the professional and ethical responsibility
- Graduates will be able to communicate effectively in both verbal and written forms
- Graduates will have the confidence for self education and the ability for lifelong learning. They will have a broad education to understand the impact of engineering on society and demonstrate awareness of contemporary issues

Mechanical engineers deal with the design, analysis, testing, production, and utilization of all types of mechanical equipment. They are also involved in solving problems brought about by ever increasing demands from a growing world population. For example, mechanical engineers are developing technologies related to alternate energy systems, vehicles for efficient, safe, environmentally-friendly transportation, and robotic devices to perform delicate operations. They design medical implants and aids such as stents and artificial knees. IPFW offers state of-the-art education in all areas of mechanical engineering such as thermal sciences, mechanics, dynamic systems, and controls. In addition to traditional classes, our curriculum includes an innovative set of common first-year courses, integrated design experiences, hands-on laboratories, and a two-semester capstone project in which students design, build, and test a device as part of a team.

To earn the B.S.M.E. at IPFW, you must satisfy the requirements of IPFW (see Part 8) and the College of Engineering, Technology, and Computer Science (see Part 4); you must also complete the following courses:

IPFW General Education Requirements Credits: 36

Area I—Linguistic and Numerical Foundations Credits: 10

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
- MA 16500 - Analytic Geometry and Calculus I Cr. 4.

Area II—Natural and Physical Sciences Credits: 9

- CHM 11500 - General Chemistry Cr. 4.
- PHYS 15200 - Mechanics Cr. 5.

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

- with the exception of IET 105
- ECON E201 - Introduction to Microeconomics Cr. 3.

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 2

- ENGR 12000 - Graphical Communications and Spatial Analysis Cr. 2.

Area VI—Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses

- with the exception of MA 314, PHYS 325, and STAT 340.

Freshman Engineering Credits: 6

- ENGR 10100 - Introduction to Engineering Cr. 1.
- ENGR 12100 - Computer Tools for Engineers Cr. 2.
- ENGR 19900 - Introduction to Engineering Design Cr. 3.

Core and Concentration (Major) Courses Credits: 50

- ENGR 22100 - C and C++ Programming for Engineers Cr. 2.
- ME 16000 - Solid Modeling Cr. 2.
- ME 20000 - Thermodynamics I Cr. 3.
- ME 25000 - Statics Cr. 3.
- ME 25100 - Dynamics Cr. 3.

- ME 25200 - Strength of Materials Cr. 3.
- ME 29300 - Measurements and Instrumentation Cr. 2.
- ME 30100 - Thermodynamics II Cr. 3.
- ME 30300 - Material Science and Engineering Cr. 2.
- ME 30400 - Mechanics and Materials Laboratory Cr. 1.
- ME 31800 - Fluid Mechanics Cr. 3.
- ME 31900 - Fluid Mechanics Laboratory Cr. 1.
- ME 32100 - Heat Transfer Cr. 3.
- ME 33100 - System Dynamics Cr. 3.
- ME 33300 - Automatic Control Systems Cr. 3.
- ME 32200 - Heat Transfer Laboratory Cr. 1.
- ME 36100 - Kinematics and Dynamics of Machinery Cr. 3.
- ME 36900 - Design of Machine Elements Cr. 3.
- ME 48700 - Mechanical Engineering Design I Cr. 3.
- ME 48800 - Mechanical Engineering Design II Cr. 3.

Required Electrical and Computer Engineering Course Credits: 3

- ECE 20100 - Linear Circuit Analysis I Cr. 3.

Mathematics and Science Requirements Credits: 19

- MA 16600 - Analytic Geometry and Calculus II Cr. 4.
- MA 26100 - Multivariate Calculus Cr. 4.
- MA 35100 - Elementary Linear Algebra Cr. 3.
- MA 36300 - Differential Equations Cr. 3.
- PHYS 25100 - Heat, Electricity, and Optics Cr. 5.

Technical Elective Courses Credits: 12

Students must select at least three courses from Group 1.

Group 1

- ME 42100 - Heating and Air Conditioning I Cr. 3.
- ME 42400 - Design and Optimization of Thermal Systems Cr. 3.
- ME 42500 - Intermediate Heat Transfer: Theory and Applications Cr. 3.
- ME 45400 - Intermediate Dynamics with Computer Applications Cr. 3.
- ME 47100 - Vibration Analysis Cr. 3.
- ME 48000 - Finite Element Analysis Cr. 3.
- ME 50500 - Intermediate Heat Transfer Cr. 3.
- ME 50900 - Intermediate Fluid Mechanics Cr. 3.
- ME 56200 - Advanced Dynamics Cr. 3.
- ME 56300 - Mechanical Vibrations Cr. 3.
- CE 57000 - Advanced Structural Mechanics Cr. 3.
- ECE 48300 - Digital Control Systems - Analysis and Design Cr. 3.

Other 5xx-level engineering courses may be included in Group 1 with approval. A course cannot count towards both an undergraduate and graduate degree.

Group 2

- ME 37300 - Numerical Methods for Engineers Cr. 3.
- ME 49700 - Mechanical Engineering Projects Cr. 1-6.
- ME 49800 - Research in Mechanical Engineering I Cr. 3.
- ME 49900 - Research in Mechanical Engineering II Cr. 3.
- SE 51000 - Systems Engineering Cr. 3.
- SE 52000 - Engineering Economics Cr. 3.
- MA 51000 - Vector Calculus Cr. 3.
- MA 51100 - Linear Algebra with Applications Cr. 3.
- MA 52300 - Introduction to Partial Differential Equations Cr. 3.
- MA 52500 - Introduction to Complex Analysis Cr. 3.
- STAT 51100 - Statistical Methods Cr. 3.
- STAT 51200 - Applied Regression Analysis Cr. 3.
- CHM 37100 - Physical Chemistry Cr. 3.
- PHYS 32200 - Optics Cr. 3.
- PHYS 34200 - Modern Physics Cr. 3.
- ECE 38700 - Electronics and System Engineering Through Robotics Cr. 3.
- CS 32100 - Introduction to Computer Graphics Cr. 3.
- CS 38400 - Numerical Analysis Cr. 3.
  Other 5xx-level engineering, math, or physics courses may be included in Group 2 with approval. A course cannot be counted towards both an undergraduate and graduate degree.

Total Credits: 126

GPA Requirement

All engineering & technical elective courses must have a combined minimum GPA of 2.0

Mechanical Engineering Technology (B.S.)

Program: B.S.
Department of Manufacturing and Construction Engineering Technology and Interior Design
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 221 ~ 260-481-4127 ~ www.mcet.ipfw.edu

The student learning outcomes for the degree are as follows:

- An appropriate mastery of the knowledge, techniques, skills and modern tools of the appropriate ET program.
- An ability to apply current knowledge and adapt to emerging applications of mathematics, science, engineering and technology.

- An ability to conduct, analyze and interpret experiments and apply experimental results to improve processes.
- An ability to apply creativity in the design of mechanical systems, mechanical components or manufacturing processes.
- An ability to function effectively on teams.
- An ability to identify, analyze and solve technical problems in mechanical engineering and engineering technology.
- An ability to communicate effectively.
- A recognition of the need for, and an ability to engage in lifelong learning.
- An ability to understand professional, ethical and social responsibilities.
- A knowledge of and respect for diversity, contemporary societal and global issues.
- A commitment to quality, timeliness, and continuous improvement.

This program prepares graduates with knowledge, problem-solving ability, and hands-on skills to enter careers in analysis, applied design, development, implementation, manufacturing, testing, technical sales, evaluation, or oversight of mechanical systems and processes.

To earn the B.S. with a major in mechanical engineering technology, you must fulfill the requirements of IPFW (see Part 8); the College of Engineering, Technology, and Computer Science (see Part 4); and the A.S., and complete the following courses, earning a grade of C or better in those courses that serve as prerequisites:

- Technical expertise in engineering materials, statics, dynamics, strength of materials, fluid mechanics, fluid power, thermodynamics, heat transfer, and electronic control.
- Technical expertise in manufacturing processes, mechanical design, and computer-aided engineering graphics, engineering materials, automatic controls, industrial operations with added technical depth in manufacturing processes, computer-aided engineering graphics, mechanical design and engineering materials.
- Expertise in applied physics having an emphasis in applied mechanics plus fundamentals of electricity in physics and inorganic chemistry.

IPFW General Education Requirements

Area III—The Individual, Culture, and Society

- ECON E201 - Introduction to Microeconomics Cr. 3.

Area IV—Humanistic Thought Credits: 3

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis Credits: 6

See Part 2 General Education Requirements for approved courses

Required Core and Concentration (Major) Courses

- IET 35000 - Engineering Economy Cr. 3.
- MET 24700 - Computer-Aided Tool and Fixture Design Cr. 3.
- MET 30000 - Applied Thermodynamics Cr. 3.
- MET 31200 - Dynamics and Mechanisms Cr. 3.
- MET 34700 - Programming of Automation Systems Cr. 3.
- MET 35000 - Applied Fluid Mechanics Cr. 3.
- MET 37000 - Introduction to Heat Transfer Cr. 3.
- MET 38100 - Engineering Materials Cr. 3.
- MET 48700 - Instrumentation and Automatic Control Cr. 3.
- MET 49400 - Senior Design and Analysis Cr. 3.

Additional Required Technical Courses

- CHM 11100 - General Chemistry Cr. 3.
- ECET 21100 - Electrical Machines and Controls Cr. 3.
- MA 22700 - Calculus for Technology I Cr. 4.
  Grade of C or better required
- MA 22800 - Calculus for Technology II Cr. 3.

Computer Programming Elective Credits: 3

Additional Required Support Courses

- COM 32300 - Business and Professional Speaking Cr. 3.
- ENG W421 - Technical Writing Projects Cr. 1-3.

Additional Core and Concentration Electives Credits: 6

- Any two courses from IET and MET, or a course approved by an MET advisor.

Total Credits Including 65 from A.S.: 132

Media and Public Communication (B.A.)

Program: B.A.
Department of Communication
College of Arts and Sciences

Neff Hall 230 ~ 260-481-6825 ~ www.ipfw.edu/comm/

The student learning outcomes for the degree are as follows:

- Be able to articulate the historical traditions of the discipline.
- Be aware of and skillful in the use of new technologies relevant to the major.
- Be able to explain communication concepts and theories relevant to the major.

- Be able to explain, evaluate and apply the processes involved in productive conflict in the contexts (interpersonal, small group, organizational, mediated, public) relevant to the major.
- Demonstrate awareness of diverse perspectives.
- Be a competent reader, speaker, writer and listener.
- Identify and analyze the interrelation among media economics and relevant institutions and agencies.
- Critically analyze media and public communication.
- Demonstrate a basic understanding of the terminology of mediated and public communication.
- Identify and analyze the form, structure and techniques of mediated or public texts in their entirety, and consider how they function in a larger context.

The major in media and public communication offers theoretical, critical, and practical perspectives to help you navigate the changing communication environment of the 21st century. The courses in this major help you understand communication and media practices and adapt to new technologies. These courses provide concepts and skills that enable you to think and write critically about media and public communication in relation to society, culture, and everyday life. In addition, course areas are available that give you practical experience in message design, media production, and communication performance. Graduates of the program have careers in public information, media production, writing for media, management, sales, advertising, and public relations.

The Department of Communication offers a bachelor's degree in interpersonal and organizational communication and a minor in media production for those students who want more courses in practical skills. Two courses in a major offered in the Department of Communication can also be counted in the required minor. If the minor is selected from an Arts and Sciences department, the courses may be used to satisfy distribution requirements in the college.

To earn the B.A. with a major in media and public communication, you must fulfill the requirements of IPFW (see Part 8), the College of Arts and Sciences (see Part 4), and the Department of Communication as listed below. You also must earn a minor in an appropriate discipline.

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

- COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of the following: Credits: 3

- ENG W131 - Elementary Composition I Cr. 3.
- ENG W140 - Elementary Composition Honors Cr. 3.

One of the following: Credits: 3

- MA 15300 - Algebra and Trigonometry I Cr. 3.
- MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
- STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society

See Part 2 General Education Requirements for approved courses

- Additional credits (not in COM) in Area III Credits: 3
- COM 25000 - Mass Communication and Society Cr. 3.
  Credits: 0
  (credits included in Major Courses, below)

Area IV—Humanistic Thought (Not in COM) Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (not in COM) Credits: 3

See Part 2 General Education Requirements for approved courses

College of Arts and Sciences Requirements

English Writing

- ENG W233 - Intermediate Expository Writing Cr. 3.
  (or other approved writing course)

Foreign Language

- Requirements in Arts and Sciences Part B Credits: 14

Distribution (not in COM)

- Requirements in Arts and Sciences Part C Credits: 9

Cultural Studies

- Requirements in Arts and Sciences Part D Credits: 6

Core and Concentration (Major) Courses

2.0 required in all courses in the major

- COM 12000 - Introduction to Communication Technology and Communication Fields Cr. 1.

- COM 21200 - Approaches to the Study of Interpersonal Communication Cr. 3.
- COM 25000 - Mass Communication and Society Cr. 3.
- COM 30000 - Introduction to Communication Research Methods Cr. 3.
- COM 30800 - Applied Communication Cr. 1.
- COM 31800 - Principles of Persuasion Cr. 3.
- COM 33000 - Theories of Mass Communication Cr. 3.
- COM 48000 - Senior Seminar in Communication Cr. 1.

Credits from among the following: Credits: 9

- COM 30300 - Intercultural Communication Cr. 3.
- COM 31200 - Rhetoric in the Western World Cr. 3.
- COM 31400 - Advanced Presentational Speaking Cr. 3.
- COM 31600 - Controversy in American Society Cr. 3.
- COM 32500 - Interviewing: Principles and Practice Cr. 3.
- COM 33200 - Television Studio Production Cr. 3.
- COM 33800 - Documentary or Experimental Film and Video Cr. 3.
- COM 35200 - Mass Communication Law Cr. 3.
- COM 42100 - Media Genres Cr. 3.
- COM 42200 - Women, Men, and Media Cr. 3.
- COM 47100 - Communicating Peace Cr. 3.
- COM 49100 - Special Topics in Communication Cr. 1-3.

Credits from among the following Credits: 3

- COM 50700 - Introduction to Semiotics Cr. 3.
- COM 51500 - Persuasion in Social Movements Cr. 3.
- COM 51600 - Analysis of Persuasive Messages Cr. 3.
- COM 51700 - Communication in Politics Cr. 3.
- COM 51800 - Theories of Persuasion Cr. 3.
- COM 52100 - Theories of Rhetoric Cr. 3.
- COM 52200 - History and Criticism of Public Communication Cr. 3.
- COM 52700 - Introduction to Cultural Studies Cr. 3.
- COM 53100 - Special Topics in Mass Communication Cr. 3.
- COM 55700 - Legal Dimensions of Communication Cr. 3.
- COM 56300 - Public Policy in Telecommunication Cr. 3.

Minor and Elective Courses

- Credits in an approved minor (with grades of C or higher) Credits: 12–21

- Sufficient additional credits to bring the total to 124.

Total Credits: 124

Music and an Outside Field (B.S.)

Program: B.S.
Department of Music
College of Visual and Performing Arts

Rhinehart Music Center 144 ~ 260-481-6714 ~ www.ipfw.edu/vpa/music

The student learning outcomes for the degree are as follows:

Performance. Music majors will demonstrate the ability to perform competently in public on a principal instrument or voice as a soloist and as a member of a major ensemble.

Music Theory. Students will demonstrate:

- knowledge of musical form, structures, concepts, and terms
- skill and fluency in application through analysis
- ability to compose within basic musical structures
- perspective regarding historical styles and structures

Aural Perception. Students will demonstrate the ability to:

- ability to relate the cognitive to aural perception and to aesthetic responsefakeFCKRemove
- read and sing melodic lines with accurate intonation
- read and perform complex rhythms accurately
- recognize and notate melodic, rhythmic, and harmonic patterns and progressions

Music History and Literature. Students will demonstrate knowledge of:

- the principal composers,genres, styles, and performance practices of Western art music
- representative compositions of western art music, recognized aurally and from score
- non-western music and its cultural contexts and influences
- social, political and aesthetic influences and impact on music
- the influence of music on its social, political and aesthetic contexts.

Keyboard. All music majors will be able to use the keyboard as a basic tool and will demonstrate the ability to:

- perform appropriate technical skills such as scales, arpeggios, etc.
- play chord progression from Roman numerals
- improvise
- play "by ear" and from lead sheets
- harmonize melodic lines
- perform repertoire at the intermediate level
- transpose simple pieces and lead sheets
- sight read at the late elementary level
- play from 4-part open score

Technology. Students will demonstrate a basic overview of how technology serves the field of music as a whole including the following:

- knowledge of computer hardware
- ability to use notational software
- ability to use the Internet as a resource for research

Conducting. Students will demonstrate conducting knowledge and skills sufficient to run an effective rehearsal and performance, including the following:

- standard beat patterns and meters

- common articulations
- cues and cutoffs
- varying dynamics
- setting, maintaining, and altering tempi
- score preparation

Students will develop expertise in music and a complementary field by combining the music core curriculum and performance studies with 26-30 hours of another discipline, demonstrated through the following:

- ability to articulate the relationship of music to the outside field or their personal rational for combining the two areas
- expertise in the outside field through such capstone experiences as internships and senior projects for such skills-related outside field such as business or theatre
- expertise in the outside field by achieving a grade of C or higher in each course taken in the outside field

This degree combines a major in music with an opportunity to study in one of many available non-music areas, such as business, communication, electrical engineering technology, psychology, or the sciences. Some outside fields have specific course requirements. Students should consult with an advisor in the Department of Music for this information. Some outside fields require a 3-credit internship as a part of the outside field hours, and others offer the internship as an option. Consult with your advisor. Ensemble participation is not required during the semester of internship.

To earn the B.S. in Music and an Outside Field, one must satisfy the requirements of IPFW (see Part 8) and the music core, and complete the courses listed below. Credits required in the outside field must be approved in writing by an appropriate faculty member in the outside-field program of study. A record of this approval from the outside-field department will be kept as a part of your permanent file. A maximum of 6 credits in the outside field may be taken with the pass/not-pass option. An overall GPA of 2.50 or higher must be maintained in the outside field and is required for graduation. A course with a grade lower than C will not be counted toward outside-field course requirements.

IPFW General Education Requirements (33 credits)

Area I—Linguistic and Numerical Foundations Credits: 9

See Part 2 General Education Requirements for approved courses

Reading/Writing Credits: 3

- COM 11400 - Fundamentals of Speech Communication Cr. 3.

Quantitative Reasoning Credits: 3

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Music majors may not use MUS Z101 to fulfill Area IV requirements

- MUS Z105 - Traditions in World Music Cr. 3.

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Music majors may not use MUS Z140 to fulfill Area V requirements

Area VI—Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses

Music Core Credits: 33

- MUS G370 - Techniques for Conducting Cr. 2.
- MUS M201 - Music Literature I Cr. 2.
- MUS M202 - Music Literature II Cr. 2.
- MUS M403 - History of Music I Cr. 3.
- MUS M404 - History of Music II Cr. 3.
- MUS T113 - Music Theory I Cr. 3.
- MUS T114 - Music Theory II Cr. 3.
- MUS T115 - Sightsinging and Aural Perception I Cr. 1.
- MUS T116 - Sightsinging and Aural Perception II Cr. 1.
- MUS T213 - Music Theory III Cr. 3.
- MUS T214 - Music Theory IV Cr. 3.
- MUS T215 - Sightsinging and Aural Perception III Cr. 1.
- MUS T216 - Sightsinging and Aural Perception IV Cr. 1.
- MUS T315 - Analysis of Musical Form Cr. 3.
- MUS U109 - Computer Skills for Musicians Cr. 2.

Performance Studies Credits: 25-31

Applied Primary (includes recital) Credits: 14-16

- MUS X095 - Performance Class Cr. 0.
  (7-8 semesters)
- MUS X296 - Applied Music Upper Divisional Jury Examination Cr. 0.
- MUS X299 - Piano Proficiency Examination Cr. 0.
- MUS X301 - Recital: Concentration Level Cr. 0.

Applied Secondary Credits: 4-7

Non-keyboard Concentrations take:

- MUS P111 - Class Piano I Cr. 1-2.
- MUS P121 - Class Piano II Cr. 1-2.
- MUS P131 - Class Piano III Cr. 1-2.
- MUS P141 - Class Piano IV Cr. 1-2.

Keyboard Concentrations take:

- MUS P211 - Keyboard Techniques Cr. 1-2.
  and 200-level applied study (6 credits)

Ensembles Credits: 7-8

Outside Field Credits: 26-30

Some outside fields include in this credit range a 3-credit internship. These outside fields require only seven semesters of ensemble participation; consult your advisor.

Other Requirements

- Free electives Credits: 4-9

Total Credits: 130

Music Education (B.Mus.Ed)

Program: B.Mus.Ed.
Department of Music
College Visual and Performing Arts

Rhinehart Music Center 144 ~ 260-481-6714 ~ www.ipfw.edu/vpa/music

The student learning outcomes for the degree are as follows:

Performance. Music majors will demonstrate the ability to perform competently in public on a principal instrument or voice as a soloist and as a member of a major ensemble.

Music Theory. Students will demonstrate:

- knowledge of musical form, structures, concepts, and terms
- skill and fluency in application through analysis
- ability to compose within basic musical structures
- perspective regarding historical styles and structures
- ability to relate the cognitive to aural perception and to aesthetic response

Aural Perception. Students will demonstrate the ability to:

- read and sing melodic lines with accurate intonation
- read and perform complex rhythms accurately

- recognize and notate melodic, rhythmic, and harmonic patterns and progressions

Music History and Literature. Students will demonstrate knowledge of:

- the principal composers,genres, styles, and performance practices of Western art music
- representative compositions of western art music, recognized aurally and from score
- non-western music and its cultural contexts and influences
- social, political and aesthetic influences and impact on music
- the influence of music on its social, political and aesthetic contexts.

Keyboard. All music majors will be able to use the keyboard as a basic tool and will demonstrate the ability to:

- perform appropriate technical skills such as scales, arpeggios, etc.
- play chord progression from Roman numerals
- improvise
- play "by ear" and from lead sheets
- harmonize melodic lines
- perform repertoire at the intermediate level
- transpose simple pieces and lead sheets
- sight read at the late elementary level
- play from 4-part open score

Technology. Students will demonstrate a basic overview of how technology serves the field of music as a whole including the following:

- knowledge of computer hardware
- ability to use notational software
- ability to use the Internet as a resource for research

Conducting. Students will demonstrate conducting knowledge and skills sufficient to run an effective rehearsal and performance, including the following:

- standard beat patterns and meters
- common articulations
- cues and cutoffs
- varying dynamics
- setting, maintaining, and altering tempi

Music Competencies.

Students in all teaching concentrations will demonstrate:

- knowledge of content, methodologies, philosophies, materials, technologies, repertoire and curriculum development for P-12 general music
- competency sufficient to compose, arrange, and adapt music from a variety of sources to meet the needs and abilities of school performance groups and classes
- functional performance ability in keyboard and voice
- competency in transposing and improvising piano accompaniments for classroom music activities
- competency in applying analytical and historical knowledge to curriculum development, lesson planning, and classroom and performance activities

Vocal/general concentration. Students will demonstrate:

- knowledge of content, methodologies, philosophies, materials, technologies, repertoire and curriculum development for vocal music
- skill in singing and playing parts from a choral score as required in a choral rehearsal
- vocal skill and technique sufficient to teach effective use of the voice

Instrumental/general concentration. Students will demonstrate:

- knowledge of content, methodologies,philosophies, materials, technologies, repertoire and curriculum development for instrumental music
- knowledge of and performance ability on wind, string and percussion instruments sufficient to teach beginning students
- skill in transposing instrumental music

Teaching competencies. Students in all teaching concentrations will demonstrate:

- understanding of the philosophical, historical, social and psychological foundations of music education
- understanding of child growth and development and the principles of learning as they relate to music education
- ability to teach music to a variety of age groups in a variety of classroom and ensemble settings, including skill in effective management of classes and rehearsals
- ability to assess the aptitudes and experiences of individuals and groups of students, and to plan learning to meet the assessed needs.
- ability to apply appropriate rehearsal techniques and procedures to the planning, organization, and implementing of effective rehearsals
- understanding of evaluative techniques and the ability to apply appropriate measures in assessing the musical progress of students and in evaluating materials, objectives and procedures of the curriculum
- ability to work productively in the educational system, maintaining positive relationships and empathizing with students and colleagues of different backgrounds
- ability to articulate a rationale for music as a core component in a well-rounded education, and to effectively advocate for a music program to parents, professional colleagues and administrators

The music-education program provides preparation for teaching music in grades K–12. One may choose to concentrate in choral/general music education, or instrumental/general music education. Upon satisfactory completion of this program, one is eligible to apply for an Indiana teaching license in the appropriate concentration.

To earn the B.Mus.Ed., one must satisfy the requirements of IPFW (see Part 8), the music core, and the School of Education (see Part 4) and satisfactorily complete all music and professional education courses with a grade of C or better.

IPFW General Education Requirements Credits: 33

Area I—Linguistic and Numerical Foundations Credits: 9

See Part 2 General Education Requirements for approved courses

Reading/Writing Credits: 3

- COM 11400 - Fundamentals of Speech Communication Cr. 3.

Quantitative Reasoning Credits: 3

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Music majors may not use MUS Z101 to fulfill Area IV requirements

- MUS Z105 - Traditions in World Music Cr. 3.

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Music majors may not use MUS Z140 to fulfill Area V requirements

Area VI—Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses

Music Core Credits: 33

- MUS G370 - Techniques for Conducting Cr. 2.
- MUS M201 - Music Literature I Cr. 2.
- MUS M202 - Music Literature II Cr. 2.
- MUS M403 - History of Music I Cr. 3.
- MUS M404 - History of Music II Cr. 3.
- MUS T113 - Music Theory I Cr. 3.
- MUS T114 - Music Theory II Cr. 3.
- MUS T115 - Sightsinging and Aural Perception I Cr. 1.
- MUS T116 - Sightsinging and Aural Perception II Cr. 1.
- MUS T213 - Music Theory III Cr. 3.
- MUS T214 - Music Theory IV Cr. 3.
- MUS T215 - Sightsinging and Aural Perception III Cr. 1.
- MUS T216 - Sightsinging and Aural Perception IV Cr. 1.
- MUS T315 - Analysis of Musical Form Cr. 3.
- MUS U109 - Computer Skills for Musicians Cr. 2.

Performance Studies Credits: 25-28

Applied Primary (includes recital) Credits: 14

- MUS X296 - Applied Music Upper Divisional Jury Examination Cr. 0.

Applied Secondary Credits: 4-7

- MUS X095 - Performance Class Cr. 0.
  (7 semesters)
- MUS X299 - Piano Proficiency Examination Cr. 0.
- MUS X301 - Recital: Concentration Level Cr. 0.

Non-keyboard Concentrations take:

- MUS P111 - Class Piano I Cr. 1-2.
- MUS P121 - Class Piano II Cr. 1-2.
- MUS P131 - Class Piano III Cr. 1-2.
- MUS P141 - Class Piano IV Cr. 1-2.

Keyboard Concentrations take:

- MUS P211 - Keyboard Techniques Cr. 1-2.
  and 200-level applied study (6 credits)

Ensemble Credits: 7

Professional Music Courses Credits: 13

- MUS K312 - Arranging for Instrumental and Vocal Groups Cr. 2.
- MUS M216 - Music Education Lab/Field Experience Cr. 0.
- MUS M236 - Introduction to Music Education Cr. 2.
- MUS M319 - Music Education Lab/Field Experience Cr. 0.
- MUS M339 - General Music Methods K-8 Cr. 2.
- MUS U357 - Music in Special Education Cr. 3.
- MUS X297 - Music Education Upper Divisional Skills Examination Cr. 0.

Professional Music Concentration Courses Credits: 11-12

Choral and General Music

- MUS E494 - Voice Pedagogy Cr. 3.
- MUS G371 - Choral Conducting I Cr. 2.
- MUS M318 - Music Education Lab/Field Experience Cr. 0.
- MUS M338 - Methods and Materials for Teaching Choral Music Cr. 2.
- MUS V201 - Voice Class Cr. 1.
  (nonvocal concentrates only)

Music Education Electives: 2

Instrumental and General Music

- MUS G373 - Instrumental Conducting Cr. 2.
- MUS V201 - Voice Class Cr. 1.
- MUS M317 - Music Education Lab/Field Experience Cr. 0.
- MUS M337 - Methods and Materials for Teaching Instrumental Music Cr. 2.

Four of the following (excluding primary instrument) Credits: 4

- MUS G261 - String Techniques Cr. 1-2.
- MUS G272 - Clarinet and Saxophone Techniques Cr. 1-2.
- MUS G281 - Brass Instrument Techniques Cr. 1-2.
- MUS G337 - Woodwind Techniques Cr. 1-2.
- MUS G338 - Percussion Techniques Cr. 1-2.

Music Education Electives: 5

Professional Education Courses Credits: 22

A GPA of 2.5 is required.

- EDUC H340 - Education and American Culture Cr. 2-3.
- EDUC M201 - Laboratory/Field Experience Cr. 0-3.
- EDUC M482 - Student Teaching: All Grades Cr. 1-16.
- EDUC M501 - Lab/Field Experience Cr. 0-3.
  Portfolio Cr. 0
- EDUC P250 - General Educational Psychology Cr. 1-4.
- EDUC P254 - Educational Psychology for Teachers of All Grades Cr. 1-4.

Total Credits: 137–141

Music Performance (B.Mus.)

Program: B.Mus.
Department of Music
College of Visual and Performing Arts

Rhinehart Music Center 144 ~ 260-481-6714 ~ www.ipfw.edu/vpa/music

The student learning outcomes for the degree are as follows:

Performance. Music majors will demonstrate the ability to perform competently in public on a principal instrument or voice as a soloist and as a member of a major ensemble.

Music Theory. Students will demonstrate:

- knowledge of musical form, structures, concepts, and terms
- skill and fluency in application through analysis
- ability to compose within basic musical structures

- perspective regarding historical styles and structures
- ability to relate the cognitive to aural perception and to aesthetic response

Aural Perception. Students will demonstrate the ability to:

- read and sing melodic lines with accurate intonation
- read and perform complex rhythms accurately
- recognize and notate melodic, rhythmic, and harmonic patterns and progressions

Music History and Literature. Students will demonstrate knowledge of:

- the principal composers,genres, styles, and performance practices of Western art music
- representative compositions of western art music, recognized aurally and from score
- non-western music and its cultural contexts and influences
- social, political and aesthetic influences and impact on music
- the influence of music on its social, political and aesthetic contexts.

Keyboard. All music majors will be able to use the keyboard as a basic tool and will demonstrate the ability to:

- perform appropriate technical skills such as scales, arpeggios, etc.
- play chord progression from Roman numerals
- improvise
- play "by ear" and from lead sheets
- harmonize melodic lines
- perform repertoire at the intermediate level
- transpose simple pieces and lead sheets
- sight read at the late elementary level
- play from 4-part open score

Technology. Students will demonstrate a basic overview of how technology serves the field of music as a whole including the following:

- knowledge of computer hardware
- ability to use notational software
- ability to use the Internet as a resource for research

Conducting. Students will demonstrate conducting knowledge and skills sufficient to run an effective rehearsal and performance, including the following:

- standard beat patterns and meters
- common articulations
- cues and cutoffs
- varying dynamics
- setting, maintaining, and altering tempi
- score preparation

Performance majors will demonstrate:

- the ability to work independently to prepare performances at a high level of quality
- knowledge of applicable solo and ensemble literature
- orientation to and experience with the fundamentals of pedagogy

Piano performance majors will demonstrate:

- ability to perform as a soloist, an accompanist and/or chamber musician
- ability to function as an accompanist
- ability to play in chamber ensembles

Vocal performance majors will demonstrate:

- ability to perform as a soloist
- ability to perform operatic roles
- ability to perform in choral ensembles

Instrumental performance majors will demonstrate:

- ability to perform as a soloist
- ability to perform in chamber ensembles
- ability to perform in large ensembles

The Bachelor of Music program provides an opportunity to earn a performance degree in voice, winds, strings, piano, or percussion.

To earn the Bachelor of Music, one must satisfy the requirements of IPFW (see Part 8) and the music core, and satisfactorily complete the following courses, and earn a grade of C or better in each music course.

IPFW General Education Requirements (33 credits)

Area I—Linguistic and Numerical Foundations Credits: 9

See Part 2 General Education Requirements for approved courses

Reading/Writing Credits: 3

- COM 11400 - Fundamentals of Speech Communication Cr. 3.

Quantitative Reasoning Credits: 3

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Music majors may not use MUS Z101 to fulfill Area IV requirements

- MUS Z105 - Traditions in World Music Cr. 3.

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

- Music majors may not use MUS Z140 to fulfill Area V requirements

- Vocal Performance Majors must take THTR 134

Area VI—Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses

Music Core Credits: 33

- MUS G370 - Techniques for Conducting Cr. 2.
- MUS M201 - Music Literature I Cr. 2.
- MUS M202 - Music Literature II Cr. 2.
- MUS M403 - History of Music I Cr. 3.
- MUS M404 - History of Music II Cr. 3.
- MUS T113 - Music Theory I Cr. 3.
- MUS T114 - Music Theory II Cr. 3.
- MUS T115 - Sightsinging and Aural Perception I Cr. 1.
- MUS T116 - Sightsinging and Aural Perception II Cr. 1.
- MUS T213 - Music Theory III Cr. 3.
- MUS T214 - Music Theory IV Cr. 3.
- MUS T215 - Sightsinging and Aural Perception III Cr. 1.
- MUS T216 - Sightsinging and Aural Perception IV Cr. 1.
- MUS T315 - Analysis of Musical Form Cr. 3.
- MUS U109 - Computer Skills for Musicians Cr. 2.

Performance Studies Credits: 32

Applied Primary (includes recital) Credits: 16

- MUS X296 - Applied Music Upper Divisional Jury Examination Cr. 0.

Applied Secondary Credits: 4-7

- MUS X095 - Performance Class Cr. 0.
  (8 semesters)
- MUS X299 - Piano Proficiency Examination Cr. 0.
- MUS X401 - Junior Recital: Performance Major Cr. 0.
- MUS X402 - Senior Recital: Performance Major Cr. 0.

Non-keyboard Concentrations take:

- MUS P111 - Class Piano I Cr. 1-2.
- MUS P121 - Class Piano II Cr. 1-2.
- MUS P131 - Class Piano III Cr. 1-2.
- MUS P141 - Class Piano IV Cr. 1-2.

Keyboard Concentrations take:

- MUS P211 - Keyboard Techniques Cr. 1-2.
  and 200-level applied study (6 credits)

Ensembles Credits: 8

Piano Performance majors take major ensembles for 6 semesters and

- MUS X002 - Piano Accompanying Cr. 1-2.
  for 2 semesters

Professional Music Courses and Free Electives Credits: 26

*Piano Majors (**26 credits**)*

- Piano ensemble/piano chamber ensemble Credits: 2

- Keyboard literature Credits: 6

- Piano pedagogy Credits: 3

- Electives in music Credits: 6

- Free electives Credits: 9

- *Voice Majors (**26 credits**)*

- Song literature Credits: 3

- Foreign language Credits: 8

- Diction Credits: 4

- Vocal pedagogy Credits: 3

- Opera Ensemble Credits: 2

- Elective credits in music Credits: 3

- Free electives Credits: 3

*Instrumental Majors (**26 credits**)*

- Instrumental literature Credits: 3

- Instrumental pedagogy Credits: 2

- Additional ensembles Credits: 6
  Refer to *Department of Music Handbook*

- Elective credits in music Credits: 6

- Free electives Credits: 9

Total Credits: 120-123

Music Therapy (B.S.M.T.)

Program: B.S.M.T.
Department of Music
College of Visual and Performing Arts

Rhinehart Music Center 144 ~ 260-481-6714 ~ www.ipfw.edu/vpa/music

The student learning outcomes for the degree are as follows:

Performance. Music majors will demonstrate the ability to perform competently in public on a principal instrument or voice as a soloist and as a member of a major ensemble.

Music Theory. Students will demonstrate:

- knowledge of musical form, structures, concepts, and terms
- skill and fluency in application through analysis
- ability to compose within basic musical structures
- perspective regarding historical styles and structures
- ability to relate the cognitive to aural perception and to aesthetic response

Aural Perception. Students will demonstrate the ability to:

- read and sing melodic lines with accurate intonation
- read and perform complex rhythms accurately
- recognize and notate melodic, rhythmic, and harmonic patterns and progressions

Music History and Literature. Students will demonstrate knowledge of:

- the principal composers,genres, styles, and performance practices of Western art music
- representative compositions of western art music, recognized aurally and from score
- non-western music and its cultural contexts and influences
- social, political and aesthetic influences and impact on music
- the influence of music on its social, political and aesthetic contexts.

Keyboard. All music majors will be able to use the keyboard as a basic tool and will demonstrate the ability to:

- perform appropriate technical skills such as scales, arpeggios, etc.
- play chord progression from Roman numerals
- improvise
- play "by ear" and from lead sheets
- harmonize melodic lines
- perform repertoire at the intermediate level
- transpose simple pieces and lead sheets
- sight read at the late elementary level
- play from 4-part open score

Technology. Students will demonstrate a basic overview of how technology serves the field of music as a whole including the following:

- knowledge of computer hardware
- ability to use notational software
- ability to use the Internet as a resource for research

Conducting. Students will demonstrate conducting knowledge and skills sufficient to run an effective rehearsal and performance, including the following:

- standard beat patterns and meters
- common articulations
- cues and cutoffs
- varying dynamics
- setting, maintaining, and altering tempi
- score preparation

Music Foundations. Students will demonstrate general musicianship, as well as specific music knowledge and skills, sufficient to appropriately and effectively apply a wide variety of music interventions within the clinical setting including the following:

- recognition of standard works from various periods and cultures, and identification of their elemental, structural land stylistic characteristics
- sight-singing transposing and aural dictation of melodies, rhythms and chord progressions
- composing songs and simple instrumental pieces in a variety of styles with simple accompaniments
- adapting, arranging, transposing, and simplifying compositions for vocal and non-symphonic instrumental ensembles
- performing appropriate undergraduate repertoire, and demonstrating musicianship, technical proficiency, and interpretive understanding on a principle instrument/voice
- functional keyboard skills including accompanying, sight-reading and transposition skills for a basic repertoire of traditional, folk and popular songs and musical styles
- functional guitar skills including accompanying, sight-reading and transpositions skills for a basic repertoire of traditional, folk, and popular songs and musical styles
- functional vocal skills for singing a basic repertoire of traditional, folk and popular songs and musical styles and for vocally leading group singing
- utilizing a variety of non-symphonic and ethnic instruments and percussion for accompanying and leading group singing and playing
- improvise on non-symphonic and ethnic instruments and percussion in a wide variety of styles and moods for accompaniment and group playing
- conducting small and large vocal and instrumental ensembles

Clinical Foundations. Students will demonstrate an understanding of and ability to integrate philosophies, orientations, theories and techniques of traditional therapies into clinical music therapy practice, including the following:

- understanding of the general populations and specific disability and diagnostic groups to which music therapy clients typically belong, including:
    - causes and symptoms of major exceptionalities
    - basic terminology and diagnostic classifications
    - potentials, limitations and problems of exceptional individuals
- understanding of human development throughout the life span, including major theories of development
- basic knowledge of the major schools of thought and their accepted methods of therapeutic interventions
- demonstrate an understanding of basic group process within therapeutic environments
- utilize the dynamics of group process to address therapeutic goals
- develop a depth of self-awareness that allows for the establishment of ethically appropriate and effective therapeutic relationships

Music Therapy. Students will demonstrate an understanding of, and ability to integrate and practice music therapy-specific concepts and skills in preparation for effective provision of clinical music therapy services to clients in a manner which adheres to professional standards of clinical practice and to ethical code, including the following:

- basic knowledge of music therapy methods, techniques, materials and equipment and their appropriate applications, as appropriate to a variety of client populations and settings
- application of the philosophical, psychological, physiological and sociological bases for the use of music as therapy
- application of the principles and methods for evaluating the effectiveness of music therapy
- communication of a basic understanding of the concepts, processes, methods and techniques, cultural implications, and analyses and interpretations of music therapy assessment
- a basic understanding of the process of formulating and focusing music therapy treatment plans in response to the strengths, weakness, needs, and socio-cultural contexts of individuals and groups
- ability to apply music therapy treatment in response to the strengths, weakness, needs, and socio-cultural contexts of individuals and groups
- ability to creatively utilize a wide variety of musical intervention, including use of voice, solo, and accompaniment instruments, pitched and non-pitched percussive instruments, pre-composed music, and recorded music, in order to effectively address clients' treatment objectives
- creativity and flexibility in responding to client needs as they are presented within the music therapy session
- effective use of therapeutic self within the music therapy session in order to shape client behavior and increase client communication
- effectively communicate, verbally and in writing, all aspects of the clinical process, including, assessment, planning, implementation, outcomes, and evaluation
- attitudes and behaviors that reflect the standards and ethical codes required of the music therapy professional basic knowledge of quantitative, qualitative and historical research in music therapy,l and its implications for and applications to music therapy clinical practice.

Music therapists use music and music activities to promote health and rehabilitation for individuals of all ages with disabilities in a variety of agencies such as hospitals, schools, rehabilitation centers, and private practice settings. Students must satisfactorily complete a six-month internship at the conclusion of the required course work. Graduates of the B.S.M.T. program are eligible to sit for the national certification exam sponsored by the Certification Board for Music Therapists. Music therapy majors must work closely with an advisor to select general education courses that meet national certification requirements. Bachelor of Science in Music Therapy (B.S.M.T.) candidates have some specific general education courses in some categories.

Gerontology

For information about earning an undergraduate certificate in gerontology concurrently with the B.S.M.T., consult the gerontology program entry in this section of this Bulletin. Additional information is published in the *Department of Music Student Handbook*.

IPFW General Education Requirements (33 credits)

Area I—Linguistic and Numerical Foundations Credits: 9

See Part 2 General Education Requirements for approved courses

Reading/Writing Credits: 3

- COM 11400 - Fundamentals of Speech Communication Cr. 3.

Quantitative Reasoning Credits: 3

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

- BIOL 20300 - Human Anatomy and Physiology Cr. 4.

Area III—The Individual, Culture, and Society Credits: 6

- PSY 12000 - Elementary Psychology Cr. 3.
- SOC S161 - Principles of Sociology Cr. 3.
- SOC S163 - Social Problems Cr. 3.

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Music majors may not use MUS Z101 to fulfill Area IV requirements

- MUS Z105 - Traditions in World Music Cr. 3.

Area V—Creative and Artistic Expression Credits: 3

Music majors may not use MUS Z140 to fulfill Area V requirements

- MUS L153 - Introduction to Music Therapy Cr. 3.

Area VI—Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses

Music Core Credits: 33

- MUS G370 - Techniques for Conducting Cr. 2.
- MUS M201 - Music Literature I Cr. 2.
- MUS M202 - Music Literature II Cr. 2.
- MUS M403 - History of Music I Cr. 3.
- MUS M404 - History of Music II Cr. 3.
- MUS T113 - Music Theory I Cr. 3.
- MUS T114 - Music Theory II Cr. 3.
- MUS T115 - Sightsinging and Aural Perception I Cr. 1.
- MUS T116 - Sightsinging and Aural Perception II Cr. 1.
- MUS T213 - Music Theory III Cr. 3.
- MUS T214 - Music Theory IV Cr. 3.

- MUS T215 - Sightsinging and Aural Perception III Cr. 1.
- MUS T216 - Sightsinging and Aural Perception IV Cr. 1.
- MUS T315 - Analysis of Musical Form Cr. 3.
- MUS U109 - Computer Skills for Musicians Cr. 2.

Performance Studies Credits: 25-28

- MUS X095 - Performance Class Cr. 0.
  (7 semesters)
- MUS X299 - Piano Proficiency Examination Cr. 0.

Applied Primary (includes recital) Credits: 14

- MUS X269 - Upper Divisional Exam Credits: 0

Applied Secondary Credits: 4-7

Non-keyboard Concentrations take:

- MUS P111 - Class Piano I Cr. 1-2.
- MUS P121 - Class Piano II Cr. 1-2.
- MUS P131 - Class Piano III Cr. 1-2.
- MUS P141 - Class Piano IV Cr. 1-2.

Keyboard Concentrations take:

- MUS P211 - Keyboard Techniques Cr. 1-2.
  and 200-level applied study (6 credits)

Ensembles Credits: 7

Professional Music Therapy Courses Credits: 28

- MUS E253 - Functional Music Skills Cr. 2.
- MUS L253 - Music Therapy Observation Practicum Cr. 1.
- MUS L254 - Music Therapy Practicum I Cr. 1.
- MUS L340 - Music Therapy in Healthcare Settings Cr. 3.
- MUS L353 - Music Therapy Practicum II Cr. 1.
- MUS L354 - Music Therapy Practicum III Cr. 1.
- MUS L410 - Administrative and Professional Issues in Music Therapy Cr. 3.
- MUS L418 - Psychology of Music Cr. 3.
- MUS L419 - Introduction to Music Therapy Research Methods Cr. 3.
- MUS L420 - Clinical Processes in Music Therapy Cr. 3.
- MUS L421 - Music Therapy Practicum IV Cr. 1.
- MUS L422 - Theoretical Foundations in Music Therapy Cr. 3.

- MUS L424 - Music Therapy Internship Cr. 1-2.
- MUS U355 - Music and Exceptionality Cr. 4.
- MUS X298 - Music Therapy Upper Divisional Skills Examination Cr. 0.

Additional Requirements Credits: 7

- MUS K312 - Arranging for Instrumental and Vocal Groups Cr. 2.
- MUS L100 - Guitar Cr. 1.
- MUS V201 - Voice Class Cr. 1.
- PSY 35000 - Abnormal Psychology Cr. 3.

General Electives Credits: 6

The following courses are recommended as general electives:

- CSD 11500 - Introduction to Communicative Disorders Cr. 3.
- FOLK F101 - Introduction to Folklore Cr. 3.
  or
- FOLK F111 - Introduction to World Folk Music Cr. 3.
- GERN G231 - Introduction to Gerontology Cr. 3.
- HSRV 210
  or
- HSRV 21100 - The Dynamics of Group Behavior Cr. 3.
- MUS E353 - Improvisation Techniques for Music Therapy Cr. 3.
- MUS U410 - Creative Arts, Health, and Wellness Cr. 3.
- PHIL 31200 - Medical Ethics Cr. 3.
- PSY 23500 - Child Psychology Cr. 3.
  or
- PSY 36700 - Adult Development and Aging Cr. 3.
  or

Total Credits: 132–135

Note

Music therapy majors must have at least seven courses in the behavioral/health/natural sciences. General electives may include courses required for the gerontology certificate program, a minor in psychology, or other program minor. See *Department of Music Handbook* for more options and further information.

Nursing (B.S.)

Program: B.S.
Department of Nursing
College of Health and Human Services

Neff Hall B50 ~ 260-481-6816 ~ www.ipfw.edu/nursing

The student learning outcomes for the degree are as follows:

- Validate professionalism through awareness, assertiveness, accountability, and advocacy.
- Critique leadership skills in directing healthcare activities: influencing and adapting to change.
- Evaluate complex issues/problems in the healthcare arena using critical thinking skills.
- Integrate the delivery of culturally competent nursing care in a variety of settings through the utilization of the Neuman Systems Model, other theories, and research.
- Justify effective, therapeutic, culturally sensitive communication techniques that are appropriate for the situation and audience.
- Evaluate the impact of generated information on healthcare outcomes.

Career Steps

As a graduate of an IPFW pre-licensure nursing program, students will have attained the knowledge and skills needed to provide quality healthcare and the academic credentials required to take the National Council Licensure Examination (NCLEX-RN). Upon successful completion of this examination, the student will be eligible to practice as a registered nurse. The baccalaureate degree (B.S.) graduate is prepared at the professional level to function in a leadership role with other team members in varied and complex healthcare settings.

IPFW General Education Requirements

Area I-Linguistic and Numerical Foundations

- Statistic - *See Part 2 General Education Requirements for approved courses*
- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.

Area II-Natural and Physical Sciences

- BIOL 20300 - Human Anatomy and Physiology Cr. 4.
- CHM 10400 - Living Chemistry Cr. 3.

Area III-The Individual, Culture, and Society (Credits: 6)

- NUR 30900 - Transcultural Healthcare Cr. 3.
- PSY 12000 - Elementary Psychology Cr. 3.

One of the following Credits: 3

- ANTH E105 - Culture and Society Cr. 3.
  or
- SOC S161 - Principles of Sociology Cr. 3.

Area IV-Humanistic Thought (Credits: 6)

See Part 2 General Education Requirements for approved courses

Area V-Creative and Artistic Expression (Credits: 3)

See Part 2 General Education Requirements for approved courses

Area VI-Inquiry and Analysis (Credits: 3)

- NUR 33900 - Research in Healthcare Cr. 3.

Program Requirements

B.S. Core Credits: 73

- NUR (elective) Credits: 3
- NUR 10300 - Professional Seminar I: Communications, Ethics and Diversity Cr. 2.
- NUR 11500 - Nursing I: Introduction to Nursing Cr. 5.
- NUR 13000 - Essential Clinical Skills Cr. 2.
- NUR 20200 - Nursing II: Medical-Surgical Nursing of Adults Cr. 6.
- NUR 24100 - Psychiatric Mental Health Nursing B Cr. 4.
- NUR 30900 - Transcultural Healthcare Cr. 3.
- NUR 33400 - Clinical Pathophysiology Cr. 4.
- NUR 33600 - Nursing IIIB: Medical-Surgical Nursing of Adults Cr. 7.
- NUR 33700 - Statistics and Data Management in Health Sciences Cr. 3.
- NUR 33900 - Research in Healthcare Cr. 3.
- NUR 34400 - Introduction to Healthcare Informatics Cr. 2.
- NUR 34600 - Advanced Health Assessment Cr. 2.
- NUR 36800 - Maternity Nursing B Cr. 3.
- NUR 37700 - Professional Seminar II: Concepts and Trends in Healthcare Delivery Cr. 3.
- NUR 37900 - Caring for Children and Families B Cr. 3.
- NUR 41800 - Community/Public Health Nursing CR. 3-5.
- NUR 41900 - Advanced Acute Care Nursing Cr. 5.
- NUR 42300 - Professional Seminar III: Healthcare Policies and Ethical Issues Cr. 2.
- NUR 43300 - Advanced Concepts in Critical Thinking Cr. 1.
- NUR 44200 - Leadership in Nursing Cr. 5.

Supporting Course Credits: 49

- Credits in communication at the 300-400 level Credits: 3

- Credits in humanities (General Education IV) Credits: 6

- Credits in elective (General Education V) Credits: 3

- BIOL 20300 - Human Anatomy and Physiology Cr. 4.
- BIOL 20400 - Human Anatomy and Physiology Cr. 4.
- BIOL 22000 - Microbiology for Allied Health Professionals Cr. 4.
- CHM 10400 - Living Chemistry Cr. 3.
- COM 11400 - Fundamentals of Speech Communication Cr. 3.

- ENG W131 - Elementary Composition I Cr. 3.
- ENG W233 - Intermediate Expository Writing Cr. 3.
- FNN 30300 - Essentials of Nutrition Cr. 3.
- PCTX 20100 - Introductory Pharmacology Cr. 3-4.
- PSY 12000 - Elementary Psychology Cr. 3.

Choose from the following Credits: 3

- SOC S161 - Principles of Sociology Cr. 3.
- ANTH E105 - Culture and Society Cr. 3.

Total Credits: 122

Nursing (LPN - B.S.)

Program: LPN - B.S.
Department of Nursing
College of Health and Human Services
Neff Hall B50 ~ 260-481-6816 ~ www.ipfw.edu/nursing

The student learning outcomes for the degree are as follows:

- Validate professionalism through awareness, assertiveness, accountability, and advocacy.
- Critique leadership skills in directing healthcare activities: influencing and adapting to change.
- Evaluate complex issues/problems in the healthcare arena using critical thinking skills
- Integrate the delivery of culturally competent nursing care in a variety of settings through the utilization of the NSM, other theories, and research.
- Justify effective, therapeutic, culturally sensitive communication techniques that are appropriate for the situation and audience.
- Evaluate the impact of generated information on healthcare outcomes.

LPN Mobility

Criteria for LPN Applicants

LPN to RN Mobility Track Seminar will be offered spring semester only. LPN applicants must meet the following requirements:

- Hold a current LPN license prior to beginning NUR 336 Nursing IIIB: Med-Surg Nursing of Adults.
- Be admitted to IPFW as a degree seeking student.
- Be a graduate of an NLNAC or equivalent accredited practical nursing program.
- Have a minimum GPA of 3.0 or higher upon graduation from the LPN program.
- A minimum GPA does not guarantee admission. The actual GPA necessary for admission varies with the GPA distribution of the applicant pool and the number of available slots for admission.
- Have completed at least 8 credit hours of anatomy and physiology within five years of application.
- Have completed CHM 10400 or equivalent chemistry within 10 years of application.

- Have completed BIOL 22000 or equivalent biology within 5 years of application.
- Have credit or accepted transfer credit in the 24 credit hours of identified pre-nursing curriculum with a grade of C or better in each course. Courses may be repeated only one time. Pre-nursing curriculum:
  - PSY 12000
  - BIOL 22000
  - ENG W131
  - CHM 10400 (equivalent CHM 11100 and 11200)
  - BIOL 20300 and BIOL 20400
  - COM 11400
- Applicants are required to take an Pre-Admission Examination. The examination is administered on specific dates and at specific times. Applicants pay a testing fee.
- Students who earn a grade of "C" or better in NUR 11700 and NUR 33600 will be awarded an additional 13 credit hours for the first year nursing courses. Student may take NUR 24100 prior to NUR 33600, but the awarding of the 13 credit hours does not occur until successful completion of NUR 11700 and NUR 33600.
- Students not successful in NUR 11700 and NUR 33600, will not be granted the 13 credit hours for the first year nursing courses and will need to successfully complete NUR 20200 to continue in the nursing program.

Criteria for Dismissal from Pre-Nursing / Ineligibility for Admission to Nursing

- A student who earns two grades below C in the same or any combination of 2 courses required in the pre-nursing curriculum will be ineligible for program admission for a period of five years after earning the last grade below C.

NOTE: Students who have previously been dismissed from the IPFW Nursing program, or any nursing degree program, and return under the above LPN admission will be dismissed from the program with a failure of any course required in the nursing curriculum.

LPN - B.S. Credit Awarded

A student who earns a grade of C or better in NUR 117 and NUR 336 will be awarded an additional 13 credit hours for the following first-year nursing courses:

- NUR 11500 - Nursing I: Introduction to Nursing Cr. 5.
- NUR 13000 - Essential Clinical Skills Cr. 2.
- NUR 20200 - Nursing II: Medical-Surgical Nursing of Adults Cr. 6.

Program Requirements

LPN - B.S. Core Credits: 61

- NUR (elective) Credits: 3
- NUR 10300 - Professional Seminar I: Communications, Ethics and Diversity Cr. 2.
- NUR 11700 - LPN Nursing Mobility Seminar Cr. 1.
- NUR 24100 - Psychiatric Mental Health Nursing B Cr. 4.
- NUR 30900 - Transcultural Healthcare Cr. 3.
- NUR 33400 - Clinical Pathophysiology Cr. 4.
- NUR 33600 - Nursing IIIB: Medical-Surgical Nursing of Adults Cr. 7.
- NUR 33700 - Statistics and Data Management in Health Sciences Cr. 3.
- NUR 33900 - Research in Healthcare Cr. 3.
- NUR 34400 - Introduction to Healthcare Informatics Cr. 2.
- NUR 34600 - Advanced Health Assessment Cr. 2.

- NUR 36800 - Maternity Nursing B Cr. 3.
- NUR 37700 - Professional Seminar II: Concepts and Trends in Healthcare Delivery Cr. 3.
- NUR 37900 - Caring for Children and Families B Cr. 3.
- NUR 41800 - Community/Public Health Nursing CR. 3-5.
- NUR 41900 - Advanced Acute Care Nursing Cr. 5.
- NUR 42300 - Professional Seminar III: Healthcare Policies and Ethical Issues Cr. 2.
- NUR 43300 - Advanced Concepts in Critical Thinking Cr. 1.
- NUR 44200 - Leadership in Nursing Cr. 5.

NUR Elective

- NUR (elective) Credits: 3

Supporting Course Credits: 49

- Credits in COM - 300-400 level Cr. 3.
- BIOL 20300 - Human Anatomy and Physiology Cr. 4.
- BIOL 20400 - Human Anatomy and Physiology Cr. 4.
- BIOL 22000 - Microbiology for Allied Health Professionals Cr. 4.
- CHM 10400 - Living Chemistry Cr. 3.
- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
- ENG W233 - Intermediate Expository Writing Cr. 3.
- FNN 30300 - Essentials of Nutrition Cr. 3.
- PCTX 20100 - Introductory Pharmacology Cr. 3-4.
- PSY 12000 - Elementary Psychology Cr. 3.

Choose from the following Credits: 3

- ANTH E105 - Culture and Society Cr. 3.
- SOC S161 - Principles of Sociology Cr. 3.

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Total Credits: 110 + 13 earned additional awarded credits = 123

Nursing (RN - B.S.)

Program: RN B.S.
Department of Nursing
College of Health and Human Services

Neff Hall B50 ~ 260-481-6816 ~ www.ipfw.edu/nursing

The student learning outcomes for the degree are as follows:

- Validate professionalism through awareness, assertiveness, accountability, and advocacy.
- Critique leadership skills in directing healthcare activities: influencing and adapting to change.
- Evaluate complex issues/problems in the healthcare arena using critical thinking skills.
- Integrate the delivery of culturally competent nursing care in a variety of settings through the utilization of the Neuman Systems Model, other theories, and research.
- Justify effective, therapeutic, culturally sensitive communication techniques that are appropriate for the situation and audience.
- Evaluate the impact of generated information on healthcare outcomes.

Career Steps

The Bachelor or Science completion (RN-BS) curriculum is uniquely designed for associate degree or diploma registered nurses, working full or part-time, who wish to step up to baccalaureate degree. It is designed to meet the student's professional goals in a flexible environment. Included in the program are two clinical practicums in a variety of acute, long-term, and community settings. Advising is personalized.

Nursing Program Admission Criteria

Admission into the RN–B.S. nursing program requires that the applicant be a graduate of a state-accredited associate degree or diploma program in nursing and have a minimum cumulative GPA of 2.3 on a 4.0 scale. A current Indiana nursing license is required prior to taking the first clinical nursing course.

Credit required from the lower division includes:

- 34 credits nursing
- 15 credits in biological and physical sciences - must include 3 credits of chemistry
- 3 credits humanities (English)
- 6 credits behavioral sciences (psychology & sociology or anthropology).

Program Requirements

Credits from the A.S. in nursing: 58

Nursing Core Credits: 38

- NUR Elective 3 credits

NUR 442, NUR 418, and NUR 419: student may pick 2 of the 3 clinicals

- NUR 30900 - Transcultural Healthcare Cr. 3.
- NUR 33400 - Clinical Pathophysiology Cr. 4.
- NUR 33700 - Statistics and Data Management in Health Sciences Cr. 3.
- NUR 33900 - Research in Healthcare Cr. 3.
- NUR 34400 - Introduction to Healthcare Informatics Cr. 2.
- NUR 34600 - Advanced Health Assessment Cr. 2.
- NUR 37700 - Professional Seminar II: Concepts and Trends in Healthcare Delivery Cr. 3.
- NUR 41800 - Community/Public Health Nursing CR. 3-5.
- NUR 41900 - Advanced Acute Care Nursing Cr. 5.
- NUR 42300 - Professional Seminar III: Healthcare Policies and Ethical Issues Cr. 2.
- NUR 44200 - Leadership in Nursing Cr. 5.

Supporting Courses Credits: 18

- Credits in communication at the 300-400 level Credits: 3

- Credits in humanities (General Education IV) Credits: 6

- Credits in elective (General Education V) Credits: 3
- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W233 - Intermediate Expository Writing Cr. 3.

Total Credits: 56

Organizational Leadership and Supervision (B.S.)

Program: B.S.
Division of Organizational Leadership and Supervision
College of Engineering, Technology, and Computer Science

Neff Hall 288 ~ 260-481-6420 ~ www.ipfw.edu/ols

The student learning outcomes for the degree are as follows:

- Students will demonstrate an understanding of contemporary issues and theories in the areas of leadership, human resources systems and team design and facilitation.
- Students will demonstrate an understanding of organizational behavior at the individual, group and organizational levels of analysis using theories derived from several behavioral sciences.
- Students will show an awareness of the cultural context of organizations and demonstrate their ability to work with diverse others.
- Students will be able to design, lead and participate in a multi-disciplinary team environment.
- Students will be able to apply theories to real organizational and leadership problems.
- Students will be able to adapt to and to manage organizational transformations and to be informed and engaged participants in such processes.
- Students will demonstrate an understanding of the professional and ethical implications and responsibilities of leadership.
- Students will demonstrate effective oral and written communication skills.

- Students will be able to analyze and solve problems occurring within organizations.
- Students will be critical readers and better consumers of behavioral science research.
- Students will be able to examine their own behaviors and beliefs about organizations and contrast them with the theories and observations of others.
- Students will be able to manage their environment by planning for and using current technology, tools, and processes.

The bachelor's program focuses on leadership roles, the human relations concerns of supervisors and human resource issues. Courses emphasize current and future workplace topics, such as teamwork and work groups, facilitation skills, employee training and development, individual creativity and innovation, workforce diversity, employee health and safety, and overseeing change.

To earn the B.S. with a major in organizational leadership and supervision, you must satisfy the requirements of IPFW (see Part 8) and the College of Engineering, Technology, and Computer Science, Division of Organizational Leadership and Supervision (see Part 4); earn a grade of C or better in ENG W131, ENG W233 (or approved substitute), and each OLS course; and complete the following requirements:

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
- MA 15300 - Algebra and Trigonometry I Cr. 3.
  or
- MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society

- PSY 12000 - Elementary Psychology Cr. 3.
- SOC S161 - Principles of Sociology Cr. 3.

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses

OLS Core and Major Courses

- OLS 25200 - Human Relations in Organizations Cr. 3.
- OLS 26800 - Elements of Law Cr. 3.
- OLS 27400 - Applied Leadership Cr. 3.
- OLS 37500 - Training Methods Cr. 3.
- OLS 37600 - Human Resources Issues Cr. 3.
- OLS 45400 - Gender and Diversity in Management Cr. 3.
- OLS 47400 - Conference Leadership Cr. 3.
- OLS 47500 - Topics: Contemporary Supervisory Training Issues Cr. 3.
- OLS 48500 - Leadership for Team Development Cr. 3.
- OLS 49600 - Leading Change: Theory and Practice Cr. 3.

OLS Electives Credits: 9

See the OLS advisor for a list of approved OLS electives.

Technical Support Requirements

- BUS A201 - Principles of Financial Accounting Cr. 3.
- ECON E200 - Fundamentals of Economics Cr. 3.
- ENG W233 - Intermediate Expository Writing Cr. 3.
- OLS 28000 - Computer Applications for Supervisors Cr. 3.

Choose from the following: Credits: 3

- COM 30300 - Intercultural Communication Cr. 3.
- COM 32300 - Business and Professional Speaking Cr. 3.
- COM 32400 - Introduction to Organizational Communication Cr. 3.

Choose from the following: Credits: 3

- BUS A202 - Principles of Managerial Accounting Cr. 3.
- PSY 20100 - Introduction to Statistics in Psychology Cr. 3.
- SPEA K300 - Statistical Techniques Cr. 3.
- STAT 30100 - Elementary Statistical Methods I Cr. 3.

Concentration Credits: 21

In consultation with IPFW academic departments, OLS has compiled interdisciplinary career concentrations such as:

Human Resource Development
Human Resource Management
Environmental Health and Safety
Electrical Engineering Technology
Government

Health Services
Hotel, Restaurant, Tourism Management
Industrial Engineering Technology
Interior Design
Information Systems
Journalism
Public Relations
Quality Control
Service Industry

A minor may be substituted for the concentration. See the OLS academic advisor for additional information.

Unrestricted Electives Credits: 9

Total Credits: 123

Note

Lists of specific courses required for each career concentration are available at the OLS office (Neff 288). Other options for filling this requirement include using an IPFW-recognized minor as a basis for your concentration area or designing a concentration that reflects your own career goals. Your proposal for an alternative concentration and a formal plan of study must be accepted by an OLS faculty advisor and approved by the OLS chair. If your plan is approved, it will become a formal part of your degree requirements.

Special Academic Regulations for Organizational Leadership and Supervision Degree Programs

Transfer students and students planning to change their major to organizational leadership and supervision must have a GPA of 2.00 or higher to be admitted into the program. A cumulative GPA of 2.0 or above is also required to remain in the division. To graduate with an OLS B.S. degree students must have a cumulative GPA of 2.0 or above and a major GPA of 2.5 or above. The major GPA consists of all required and elective courses prefixed with OLS.

OLS, business, and technical courses taken more than 10 years ago will not count towards your degree requirements.

Students receiving credit for cooperative education experience can use these credits as unrestricted electives only.

If you have not registered for degree-applicable courses as an IPFW OLS major for four consecutive semesters (excluding summer), you must satisfy the degree requirements specified in the IPFW Bulletin that includes your year of re-entry.

Philosophy (B.A.)

Program: B.A.
Department of Philosophy
College of Arts and Sciences

Liberal Arts Building 23~ 260-481-6366 ~ www.ipfw.edu/phil

The student learning outcomes for the degree are as follows:

- Possess general knowledge and critical appreciations of western and non-western philosophical thought, its principles branches and their history.
- Acquisition and honing of close reading, creative writing, and critical thinking skills.

The major in philosophy is a traditional humanities and liberal-arts program covering the principal branches and divisions of philosophy including their history. The philosophy major is good preparation for graduate study in philosophy. The philosophy major also serves as a preprofessional program for the ministry, law, or health sciences. It is often encouraged for a student to be a double major in philosophy and something else.

To earn the Bachelor of Arts with a major in philosophy, you must fulfill the requirements of IPFW (see Part 8) and the College of Arts and Sciences (see Part 4), and complete the following courses:

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

- COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of the following: Credits: 3

- ENG W131 - Elementary Composition I Cr. 3.
- ENG W140 - Elementary Composition Honors Cr. 3.

One of the following: Credits: 3

- MA 15300 - Algebra and Trigonometry I Cr. 3.
- MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
- STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III–The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought

See Part 2 General Education Requirements for approved courses

- Additional credits in Area IV Credits: 3
- PHIL 11000 - Introduction to Philosophy Cr. 3.
  (credits included in Major Courses, below)

Area V—Creative and Artistic Expression Credits: 3

Area VI—Inquiry and Analysis (not in PHIL) Credits: 3

College of Arts and Sciences Requirements

English Writing

- ENG W233 - Intermediate Expository Writing Cr. 3.

Foreign Language

- Requirements in Arts and Sciences Part B Credits: 14

Distribution (not in PHIL)

- Requirements in Arts and Sciences Part C Credits: 9

Cultural Studies

- Requirements in Arts and Sciences Part D
- PHIL 11000 - Introduction to Philosophy Cr. 3.
  (credits included in Major Courses, below)

Core and Concentration (Major) Courses

- PHIL 11000 - Introduction to Philosophy Cr. 3.
- PHIL 11100 - Ethics Cr. 3.
- PHIL 15000 - Principles of Logic Cr. 3.
- PHIL 30300 - History of Modern Philosophy Cr. 3.
- PHIL 45000 - Symbolic Logic Cr. 3.

Credits in two of the following: Credits: 6

- PHIL 30100 - History of Ancient Philosophy Cr. 3.
- PHIL 30200 - History of Medieval Philosophy Cr. 3.
- PHIL 30400 - 19th Century Philosophy Cr. 3.

Additional credits in PHIL courses, including one at the 500 level Credits: 9

General Elective Courses

Sufficient additional credits to bring the total to 124.

Total Credits: 124

Honors in Philosophy

A student may earn an honors B.A. degree in philosophy by achieving an overall GPA of 3.5 and a philosophy GPA of 3.5 or higher; conducting a two-semester (6 credit) research project; preparing a senior thesis based on the research project; and giving an oral presentation of the thesis research. The senior thesis committee must be established one semester before graduation.

Physics (B.S.)

Program: B.S.
Department of Physics
College of Arts and Sciences

Kettler Hall 126B ~ 260-481-6306 ~ www.ipfw.edu/physics/

The student learning outcomes for the degree are as follows:

- Will reason about physically significant problems conceptually and mathematically
- Will solve complex physical problems using sophisticated mathematical techniques
- Will interpret mathematical solutions conceptually and physically
- Will investigate physical phenomena using multiple approaches
- Will use computation and computer modeling to investigate physical phenomena and solve physical problems
- Will communicate in appropriate scientific media and forms

This program helps you prepare for graduate study in physics or for careers in industry. You may also be interested in physical science teaching certification (listed separately in this Bulletin).

If you wish to transfer to physics from another degree program, you must have an average of C or better in all physics and mathematics courses you have completed and not more than one grade below C in those courses.

To remain in the degree program, you must maintain a GPA of 2.0 or higher in physics courses. You may take a minor of 24–30 credits in a second science or in engineering. For this minor, a plan of study is developed with your advisor. You may substitute courses in the minor for PHYS 361. Typical minor programs chosen by physics majors are mathematics and electrical engineering.

To earn the B.S. with a major in physics, you must fulfill the requirements of IPFW (see Part 8) and the College of Arts and Sciences (see Part 4), in addition to the following requirements:

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- MA 16500 - Analytic Geometry and Calculus I Cr. 4.

(credits included in Supporting Courses, below)

One of the following: Credits: 3

- ENG W131 - Elementary Composition I Cr. 3.
- ENG W140 - Elementary Composition Honors Cr. 3.

Area II—Natural and Physical Sciences

- CHM 11500 - General Chemistry Cr. 4.
  (credits included in Supporting Courses, below)
- PHYS 15200 - Mechanics Cr. 5.
  (credits included in Major Courses, below)

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (not in PHYS) Credits: 3

See Part 2 General Education Requirements for approved courses

College of Arts and Sciences Requirements

English Writing

- ENG W233 - Intermediate Expository Writing Cr. 3.

Foreign Language

- Requirements in Arts and Sciences Part B Credits: 8

Core and Concentration (Major) Courses

- PHYS 15200 - Mechanics Cr. 5.
- PHYS 25100 - Heat, Electricity, and Optics Cr. 5.
- PHYS 31000 - Intermediate Mechanics Cr. 4.

- PHYS 32200 - Optics Cr. 3.
- PHYS 33000 - Intermediate Electricity and Magnetism Cr. 3.
- PHYS 33100 - Electricity and Magnetism II Cr. 3.
- PHYS 34200 - Modern Physics Cr. 3.
- PHYS 34300 - Modern Physics Laboratory Cr. 1.
- PHYS 34500 - Optics Laboratory I Cr. 1.
- PHYS 34600 - Advanced Laboratory I Cr. 1.
- PHYS 36100 - Electronics for Scientists Cr. 4.
- PHYS 51500 - Thermal and Statistical Physics Cr. 3.
- PHYS 52000 - Mathematical Physics Cr. 3.
- PHYS 55000 - Introduction to Quantum Mechanics Cr. 3.

One of the following: Credits: 3

- Additional credits in mathematics
- PHYS 32500 - Scientific Computing Cr. 3.

Supporting Courses

- CHM 11500 - General Chemistry Cr. 4.
- CHM 11600 - General Chemistry Cr. 4.
- MA 16500 - Analytic Geometry and Calculus I Cr. 4.
- MA 16600 - Analytic Geometry and Calculus II Cr. 4.
- MA 26100 - Multivariate Calculus Cr. 4.
- MA 35100 - Elementary Linear Algebra Cr. 3.
- MA 36300 - Differential Equations Cr. 3.

General Elective Courses

- Sufficient additional credits to bring the total to 124.

Total Credits: 124

Physics Teaching (B.S.)

Program: Physics Teaching B.S.
Department of Physics
College of Arts and Sciences

Kettler Hall 126B ~ 260-481-6306 ~ www.ipfw.edu/physics/

The student learning outcomes for the degree are as follows:

- Will reason about physically significant problems conceptually and mathematically
- Will solve complex physical problems using sophisticated mathematical techniques

- Will interpret mathematical solutions conceptually and physically
- Will use computation and computer modeling to investigate physical phenomena and solve physical problems
- Will communicate in appropriate scientific media and forms
- Will be aware of effective teaching techniques for physics
- Will be aware of appropriate physics laboratory methods

This program helps you prepare for teaching physical science in the high schools. You may also be interested in physical science teaching certification (listed separately in this Bulletin).

You should work closely with your academic advisor to ensure completion of general-education requirements for teacher certification. To be certified to teach, you must have a GPA of 2.0 or higher in the general-education areas of humanities and social and behavioral sciences. Additionally, you must have a GPA of 2.5 or higher in your major and the professional-education course area with an overall GPA of 2.5 or higher. Each professional-education course must be completed with a grade of C or better.

The School of Education requires that you first complete EDUA F300, EDUC W200/M101, and EDUC K201 before you are permitted to take professional education courses. Prior to your junior year, you must successfully complete the Pre-Professional Skills Test (PPST) before admission to the teacher education program. The PRAXIS II Specialty Area Exam in physics must be completed before or during the student-teaching semester, normally in your senior year.

If you wish to transfer to physics teaching from another degree program, you must have an average of C or better in all physics and mathematics courses you have completed, and not more than one grade below C in those courses.

To earn the B.S. with a major in physics teaching, you must fulfill the requirements of IPFW (see Part 8) and the College of Arts and Sciences (see Part 4) in addition to the following requirements:

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- MA 16500 - Analytic Geometry and Calculus I Cr. 4.
  Credits: 0
  (credits included in Supporting Courses, below)

One of the following: Credits: 3

- ENG W131 - Elementary Composition I Cr. 3.
- ENG W140 - Elementary Composition Honors Cr. 3.

Area II—Natural and Physical Sciences

- CHM 11500 - General Chemistry Cr. 4.
  Credits: 0
  (credits included in Supporting Courses, below)
- PHYS 15200 - Mechanics Cr. 5.
  Credits: 0
  (credits included in Major Courses, below)

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (not in PHYS) Credits: 3

See Part 2 General Education Requirements for approved courses

College of Arts and Sciences Requirements

English Writing

- ENG W233 - Intermediate Expository Writing Cr. 3.

Core and Concentration (Major) Courses

- PHYS 15200 - Mechanics Cr. 5.
- PHYS 25100 - Heat, Electricity, and Optics Cr. 5.
- PHYS 31000 - Intermediate Mechanics Cr. 4.
- PHYS 32200 - Optics Cr. 3.
- PHYS 33000 - Intermediate Electricity and Magnetism Cr. 3.
- PHYS 33100 - Electricity and Magnetism II Cr. 3.
- PHYS 34200 - Modern Physics Cr. 3.
- PHYS 34300 - Modern Physics Laboratory Cr. 1.
- PHYS 34500 - Optics Laboratory I Cr. 1.
- PHYS 34600 - Advanced Laboratory I Cr. 1.
- PHYS 51500 - Thermal and Statistical Physics Cr. 3.
- PHYS 52000 - Mathematical Physics Cr. 3.
- PHYS 55000 - Introduction to Quantum Mechanics Cr. 3.

Supporting Courses

- CHM 11500 - General Chemistry Cr. 4.
- CHM 11600 - General Chemistry Cr. 4.
- MA 16500 - Analytic Geometry and Calculus I Cr. 4.
- MA 16600 - Analytic Geometry and Calculus II Cr. 4.
- MA 26100 - Multivariate Calculus Cr. 4.
- MA 35100 - Elementary Linear Algebra Cr. 3.
- MA 36300 - Differential Equations Cr. 3.

Teacher Education Program Requirements

Prior to being admitted to the teacher education program, you must complete the Initial Requirement courses and pass the PPST.

Initial Requirements

- EDUA F300 - Topical Exploration in Education Cr. 1-3.
  Credits: 2
- EDUC K201 - Schools, Society, and Exceptionality Cr. 1-3.
  Credits: 1
- EDUC M101 - Laboratory/Field Experience Cr. 0-3.
  Credits: 0
- EDUC W200 - Using Computers for Education Cr. 1.
  Credits: 1

Block I

- EDUC H340 - Education and American Culture Cr. 2-3.
  Credits: 3
- EDUC K206 - Teaching Methods for Students with Special Needs Cr. 1-3.
  Credits: 3
- EDUC M201 - Laboratory/Field Experience Cr. 0-3.
  Credits: 0
- EDUC P250 - General Educational Psychology Cr. 1-4.
  Credits: 3

Block II

- EDUC M301 - Laboratory/Field Experience Cr. 0-3.
- EDUC M449 - Methods of Teaching Science in the Secondary Schools Cr. 3.
- EDUC P253 - Educational Psychology for Secondary Teachers Cr. 1-4.
- EDUC Q400 - Man and Environment: Instructional Methods Cr. 3.
- EDUC X401 - Critical Reading in the Content Area Cr. 1-3.

Student Teaching

- EDUC M480 - Student Teaching in the Secondary School Cr. 1-16.
  Credits: 12
- EDUC M501 - Lab/Field Experience Cr. 0-3.
  Credits: 0
- EDUC M470 - Practicum Cr. 3-8.
  (recommended for Middle School Endorsement area) Credits: 4

Total Credits: 125

Political Science (B.A.)

Program: B.A.
Department of Political Science
College of Arts and Sciences

Liberal Arts Building 209 ~ 260-481-6686 ~ www.ipfw.edu/pols

The student learning outcomes for the degree are as follows:

Identify basic and explain advanced key terms and concepts in the major fields of the discipline

- Political Thought and Philosophy
- American Government and Politics
- Comparative Government
- International Relations
- Quantitative and Qualitative Methods

Demonstrate the ability to:

- Write/communicate clearly and effectively.
- Use quantitative and qualitative research tools appropriately.
- Research and analyze political issues and engage in problem solving
- Behave ethically and professionally in keeping with disciplinary standards for personal integrity, academic honesty, respect for diversity, and civil dissent and discourse

To be prepared for:

- Those careers outlined in the latest edition of the APSA *Careers and the Study of Political Science*, and especially careers in government/public service/political system or related areas.
- Graduate study/law school.
- Becoming active and involved citizens and leaders in the local community, the nation, and beyond.

To earn the B.A. with a major in political science, you must fulfill the requirements of IPFW (see Part 8) and the College of Arts and Sciences (see Part 4), and complete the following courses:

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

- COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of the following: Credits: 3

- ENG W131 - Elementary Composition I Cr. 3.
- ENG W140 - Elementary Composition Honors Cr. 3.

One of the following: Credits: 3

- MA 15300 - Algebra and Trigonometry I Cr. 3.

- MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society

See Part 2 General Education Requirements for approved courses

- Additional credits in Area III Credits: 3

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved coursesp

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (not in POLS) Credits: 3

See Part 2 General Education Requirements for approved courses

College of Arts and Sciences Requirements

English Writing

- POLS Y205 - Elements of Political Analysis Cr. 3.

Foreign Language

- Requirements in Arts and Sciences Part B Credits: 14

Distribution (not in POLS)

- Requirements in Arts and Sciences Part C Credits: 9

Cultural Studies

- Requirements in Arts and Sciences Part D Credits: 6

Core and Concentration (Major) Courses

- POLS Yxxx - additional POLS credits, 100 level or above Cr: 6.
- POLS Yxxx - additional POLS credits, 200 level or above Cr: 6.
- POLS Yxxx - additional POLS credits, 300 level or above Cr: 9.
- POLS Y205 - Elements of Political Analysis Cr. 3.
- POLS Y395 - Quantitative Political Analysis Cr. 3.
- POLS Y490 - Senior Seminar in Political Science Cr. 3.

General Elective Courses

- Sufficient additional credits to bring the total to 124.

Total Credits: 124

Teacher Certification

You may be certified as a teacher of social studies after fulfilling all requirements for the B.A. with a major in political science and all requirements for teacher certification. Full information on teacher-certification requirements is available from the School of Education.

Prior to your junior year, the School of Education requires that you successfully complete EDUA F300, EDUC W200/M101, and EDUC K201 and the Pre-Professional Skills Test (PPST) before admission to the teacher education program. The PRAXIS II Specialty Area Exam must be completed before or during the student-teaching semester, normally in your senior year.

Notes

Neither Y398 (Internship in Urban Institutions) nor Y482 (Practicum) may count for more than 6 credits for the major; these two courses together may not count for more than 9 credits for the major.

Psychology (B.A.)

Program: B.A.
Department of Psychology
College of Arts and Sciences

Neff Hall 388 ~ 260-481-6403 ~ www.ipfw.edu/psyc

The student learning outcomes for the degree are as follows:

- Students will demonstrate knowledge of the major theoretical approaches, findings, and historical trends in psychology.
- Students will demonstrate the ability to understand the major research methods in psychology, including ethical standards, design, data analysis, and interpretation.
- Students will demonstrate the ability to think critically and to use the scientific approach to understand behavior.
- Students will demonstrate the ability to apply concepts, information, and skills learned in psychology courses to their lives and work.

- Students will demonstrate the ability to effectively locate and evaluate sources of information.
- Students will demonstrate the ability to express themselves effectively in the discourse of the discipline.
- Students will demonstrate the ability to understand people from a diverse range of backgrounds and varying demographic characteristics such as age, race, disability, sexual orientation, class, ethnicity, religion, and cognitive abilities.
- Students will demonstrate the ability to make decisions about future employment or graduate education.

The Bachelor of Arts with a major in psychology is for the person seeking a career in psychology or a closely related field. The degree program provides a liberal-arts education in psychology as well as preparation for graduate school. A current IPFW student must have a cumulative GPA of 2.0 to declare psychology as a major. After two consecutively-enrolled semesters in which a psychology major's cumulative GPA falls below 2.0, the student will no longer be eligible to be a psychology major. Two subsequent consecutive semesters with the cumulative GPA at or above 2.0 will permit a student to petition for reinstatement as a psychology major.

To earn the B.A. with a major in psychology, you must fulfill the requirements of IPFW (see Part 8) and the College of Arts and Sciences (see Part 4), in addition to fulfilling the following requirements:

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

- COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of the following: Credits: 3

- ENG W131 - Elementary Composition I Cr. 3.
- ENG W140 - Elementary Composition Honors Cr. 3.

One of the following: Credits: 3

- MA 15300 - Algebra and Trigonometry I Cr. 3.
- MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
- STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society

See Part 2 General Education Requirements for approved courses

- Additional credits in Area III Credits: 3
- PSY 12000 - Elementary Psychology Cr. 3.
  Credit: 0
  (credits included in Major Courses, below)

Area IV—Humanistic Thought Credits: 6

Area V—Creative and Artistic Expression Credits: 3

Area VI—Inquiry and Analysis (not in PSY) Credits: 3

College of Arts and Sciences Requirements

English Writing

- ENG W233 - Intermediate Expository Writing Cr. 3.
  (or other approved writing courses)

Foreign Language

- Requirements in Arts and Sciences Part B Credits: 14

Distribution (not in PSY)

- Requirements in Arts and Sciences Part C   Credits: 9

Cultural Studies

- Requirements in Arts and Sciences Part D Credits: 6

Core and Concentration (Major) Courses

- PSY 10000 - Introduction to the Science and Fields of Psychology Cr. 1.
- PSY 12000 - Elementary Psychology Cr. 3.
- PSY 20100 - Introduction to Statistics in Psychology Cr. 3.
- PSY 20300 - Introduction to Research Methods in Psychology Cr. 3.
- PSY 31400 - Introduction to Learning Cr. 3.
- PSY 32900 - Psychobiology II: Principles of Psychobiological Psychology Cr. 3.
- PSY 41600 - Cognitive Psychology Cr. 3.

Three of the following: Credits: 9

- PSY 23500 - Child Psychology Cr. 3.
  Credit not given for both PSY 23500 and PSY 36900
- PSY 24000 - Introduction to Social Psychology Cr. 3.
- PSY 35000 - Abnormal Psychology Cr. 3.

- PSY 36900 - Development Across the Lifespan Cr. 3.
  Credit not given for both PSY 23500 and PSY 36900
- PSY 42000 - Introduction to Personality Theory Cr. 3.

One of the following: Credits: 3

- PSY 44100 - Advanced Research in Personality and Social Psychology Cr. 3.
- PSY 48000 - Field Experience in Psychology Cr. 3.
- PSY 49000 - Practicum in Psychotherapy Cr. 3.
- PSY 49900 - Honors Thesis in Psychology Cr. 3.
- PSY 54000 - History of Psychology Cr. 3.
- PSY 55000 - Introduction to Clinical Psychology Cr. 3.

Additional credits in psychology at the 200 level or above Credits: 9

3 credits must be taken at IPFW

Successful completion of the Major Field Test in Psychology

General Elective Courses

Sufficient additional credits to bring the total to 124.

Total Credits: 124

Honors in Psychology

A student may earn an honors degree in psychology by completing all of the requirements toward the B.A., achieving an overall GPA of 3.5 or higher, and conducting a two-semester independent research project. In the first semester of independent research the student is to complete three credits of PSY 49800 or PSY 59000. In the second semester, the student is to complete an honors thesis, PSY 49900. As part of the honors thesis, an oral presentation to the department is required.

Public Affairs (B.S.P.A.)

Program: Bachelor of Science in Public Affairs

Neff Hall 260 ~ 260-481-6351 ~ www.ipfw.edu/SPEA/

The student learning outcomes for the degree are as follows:

Students should be able to:

- Understand fiscal management of public agencies.
- Apply techniques of revenue administration, debt management, and public budgeting.
- Understand origins, processes, and impact of law in the creation and implementation of public policy.
- Understand the capabilities of management science.

- Appropriately use quantitative approaches for dealing with management and policy problems.

The B.S.P.A. degree program provides a background in the liberal arts and a focus on public affairs. This degree offers majors in criminal justice, environmental policy, health services administration, legal studies, and public management. In addition, a specialized study major may be developed with the approval of a faculty advisor and the program director to meet special career needs. Internships are available and strongly encouraged to provide qualified students with the opportunity to apply classroom theory and techniques to real-life experiences. The internship program is designed for maximum flexibility; internships can be full or part time, paid or unpaid, credit or noncredit.

The DPEA curriculum is divided into four categories — general education, public affairs core, a major area, and general electives. The B.S.P.A. requires a minimum of 120 credit hours with a 2.0 or higher cumulative grade-point average and a 2.3 or higher grade-point average in core and major courses. No more than 90 credits may be transferred from other accredited institutions (60 credits from a junior college). No more than 10 credits can be taken by correspondence through the IU School of Continuing Studies. A maximum of 10 credits may be applied from military experience, and a maximum of 12 credits may be awarded for police academy training completed within the past year. Courses taken to meet specific DPEA degree requirements cannot be used to satisfy any other DPEA degree requirement, but may be double-counted to satisfy the IPFW general-education distribution requirements.

To earn the Bachelor of Science in Public Affairs at IPFW, you must fulfill the requirements of IPFW (see Part 8) and the Division of Public and Environmental Affairs, and complete the following requirements:

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations Credits: 9

Area I - Reading/Writing Credits: 3

One of the following:

- ENG W131 - Elementary Composition I Cr. 3.
- ENG W140 - Elementary Composition Honors Cr. 3.

Area I - Listening/Speaking Credits: 3

- COM 11400 - Fundamentals of Speech Communication Cr. 3.

Area I - Quantitative Reasoning Credits: 3

See Part 2 General Education Requirements for approved courses

Note on double counting:
Some courses may be used to fulfill both Quantitative Reasoning and the DPEA Quantitative Methods requirements.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Note on double counting:
Some courses may be used to fulfill both Natural and Physical Sciences Requirements and the DPEA Natural Sciences Requirements.

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Note on double counting
Some courses may be used to fulfill both The Individual, Culture, and Society requirements and DPEA Arts and Humanities requirements or DPEA Social and Behavioral Sciences requirements.

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Note on double counting
Some courses may be used to fulfill both Humanistic Thought and the DPEA Arts and Humanities requirements.

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Note on double counting
Some courses may be used to fulfill both the Creative and Artistic Expression requirement and a DPEA Arts and Humanities requirement or a Social and Behavioral Science requirement.

Area VI—Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses

Note on double counting
Some courses may be used to fulfill both the Inquiry and Analysis requirement and a DPEA Arts and Humanities requirement or a Social and Behavioral Sciences requirement.

Division of Public and Environmental Affairs

I. General Education Courses Credits: 53

A. Communication Credits: 3

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.

One of the following courses:

- ENG W232 - Introduction to Business Writing Cr. 3.
- ENG W233 - Intermediate Expository Writing Cr. 3.

B. Quantitative Methods Credits: 9

Three credits in computer literacy skills from the following:

- ETCS 10600 - Introduction to Computers Cr. 3.
  Or
- BUS K200 - Computer Literacy Concepts for Business Cr. 0.
- BUS K211 - Spreadsheets for Business Cr. 1.
- BUS K212 - Introduction to Database Management Cr. 1.
- BUS K213 - Internet Literacy for Business Cr. 1.

One of the following mathematics courses:

- MA 15300 - Algebra and Trigonometry I Cr. 3.
- MA 21300 - Finite Mathematics I Cr. 3.
- MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.

One of the following statistics courses:

- ECON E270 - Introduction to Statistical Theory in Economics and Business I Cr. 3.
- SOC S351 - Social Statistics Cr. 3.
- SPEA K300 - Statistical Techniques Cr. 3.
- STAT 30100 - Elementary Statistical Methods I Cr. 3.

C. Arts and Humanities Credits: 12

- HIST H105 - American History I Cr. 3.
- HIST H106 - American History II Cr. 3.

Arts & Humanities Electives

Choose two courses (six credits) from at least two of the following subject areas:

Classical Studies, Communication, English, Film, Fine Arts, Folklore, Foreign Language, History, Honors (Humanities only), Music, Philosophy, Theatre

D. Natural Sciences Credits: 8

Select Natural Science credits totaling 8:

A mininum of 6 credits must be from the following University approved General Education Area II courses.

- ANTH B200 - Bioanthropology Cr. 3.
- AST A100 - The Solar System Cr. 3.
- BIOL 10000 - Introduction to the Biological World Cr. 3.
- BIOL 10001 - Introduction to the Biological World Laboratory Cr. 1.
- BIOL 25000 - Women and Biology Cr. 3.
- BIOL 32700 - Biology of Aging Cr. 3.

- CHM 10400 - Living Chemistry Cr. 3.
- CHM 11100 - General Chemistry Cr. 3.
- CHM 12000 - Chemistry and Art Cr. 3.
- GEOG G107 - Physical Systems of the Environment Cr. 3.
- GEOG G109 - Weather and Climate Cr. 3.
- GEOL G100 - General Geology Cr. 3-5.
- GEOL G103 - Earth Science: Materials and Processes Cr. 3.
- GEOL G104 - Earth Science: Evolution of the Earth Cr. 3.
- GEOL G210 - Oceanography Cr. 3.
- GEOL L100 - General Geology Laboratory Cr. 1-2.
- IDIS G102 - Freshman Seminar/Physical and Natural World Cr. 3.
- PHYS 10500 - Sound and Music Cr. 3.
- PHYS 11500 - Introduction to Lasers Cr. 3.
- PHYS 12000 - Physics of Sports Cr. 3.
- PHYS 12500 - Light and Color Cr. 3.
- PHYS 12700 - Physics for Computer Graphics and Animation Cr. 3.
- PHYS 13100 - Concepts in Physics I Cr. 3.
- PHYS 13200 - Concepts in Physics II Cr. 3.
- PHYS 13500 - The First Three Minutes Cr. 3.
- PHYS 13600 - Chaos and Fractals Cr. 3.

E. Social and Behavioral Sciences Credits: 15

- ECON E201 - Introduction to Microeconomics Cr. 3.
- ECON E202 - Introduction to Macroeconomics Cr. 3.
- SPEA V371 - Financing Public Affairs Cr. 3.

Social & Behavioral Science Electives

Choose two courses (six credits) from the following subject areas:

Anthropology, Criminal Justice (for non-Criminal Justice majors), Economics, Geography (selected), Journalism, Linguistics, Political Science, Psychology, Sociology, Women's Studies

II. Public Affairs Core Credits: 12

A grade of C or better is required in each of these courses.

- SPEA E162 - Environment and People Cr. 3.
- SPEA H120 - Contemporary Health Issues Cr. 1-3.
- SPEA J101 - The American Criminal Justice System Cr. 3.
- SPEA V170 - Introduction to Public Affairs Cr. 3.

III. Major Credits: 27 to 30

A. Criminal Justice Credits: 30 - Charles "Bud" Meeks Criminal Justice Program

- SPEA J201 - Theoretical Foundations of Criminal Justice Policies Cr. 3.
- SPEA J202 - Criminal Justice Data, Methods, and Resources Cr. 3.
- SPEA J301 - Substantive Criminal Law Cr. 3.
- SPEA J306 - The Criminal Courts Cr. 3.
- SPEA J321 - American Policing Cr. 3.
- SPEA J331 - Corrections Cr. 3.
- SPEA J439 - Crime and Public Policy Cr. 3.

Additional SPEA Electives Approved By Advisor Credits: 9

A maximum of 6 credits may be earned in SPEA V380, Internship in Public Affairs.

- SPEA V380 - Internship in Public Affairs Cr. 1-6.

B. Environmental Policy Credits: 27

- SPEA E400 - Topics in Environmental Studies Cr. 3.
- SPEA H316 - Environmental Health Science Cr. 3.
- SPEA H416 - Environmental Health Policy Cr. 3.
- SPEA V376 - Law and Public Policy Cr. 3.

Either of the following environmental science courses:

- BIOL 34900 - Environmental Science Cr. 3.
- SPEA E272 - Introduction to Environmental Sciences Cr. 3.

12 credits chosen from the following:

A maximum of 6 credits may be earned in SPEA V380, Internship in Public Affairs.

- ANTH E320 - Indians of North America Cr. 3.
- ANTH E401 - Ecology and Culture Cr. 3.
- BIOL 21700 - Intermediate Ecology Cr. 3.
- COM 31600 - Controversy in American Society Cr. 3.
- ENTM 20600 - General Applied Entomology Cr. 2.
- ENTM 20700 - General Applied Entomology Laboratory Cr. 1.
- GEOL G300 - Environmental and Urban Geology Cr. 3.
- LSTU L240 - Occupational Health and Safety Cr. 3.
- PHIL 32800 - Ethics and Animals Cr. 3.
- POLS Y367 - International Law Cr. 3.
- SOC S309 - The Community Cr. 3.
- SOC S360 - Topics in Social Policy Cr. 3.
- SOC S333 - Collective Behavior and Social Movements Cr. 3.
- SPEA V365 - Urban Development and Planning Cr. 3.
- SPEA V372 - Government Finance and Budgets Cr. 3.
- SPEA V380 - Internship in Public Affairs Cr. 1-6.
- SPEA V390 - Readings in Public Affairs Cr. 1-3.

- SPEA V450 - Contemporary Issues in Public Affairs Cr. 1-3.

- SPEA V465 - Geographic Information Systems for Public and Environmental Affairs Cr. 3.
- SPEA V490 - Directed Research in Public and Environmental Affairs Cr. 1-3.

C. Health Services Administration Credits: 27

- SPEA H320 - Health Systems Administration Cr. 3.
- SPEA H322 - Principles of Epidemiology Cr. 3.
- SPEA H352 - Health Finance and Budgeting Cr. 3.
- SPEA H402 - Hospital Administration Cr. 3.
- SPEA H411 - Chronic and Long-Term Care Administration Cr. 3.

One of the following:

- SPEA H371 - Human Resource Management in Healthcare Facilities Cr. 3.
- SPEA V366 - Managing Behavior in Public Organizations Cr. 3.
- SPEA V373 - Human Resources Management in the Public Sector Cr. 3.

Additional 9 credits of DPEA electives approved by advisor

A maximum of 6 credits may be earned in SPEA V380, Internship in Public Affairs.

D. Legal Studies Credits: 30

- POLS Y211 - Introduction to Law Cr. 3.
- POLS Y304 - Constitutional Law Cr. 3.
- POLS Y305 - Constitutional Rights and Liberties Cr. 3.
- SPEA V376 - Law and Public Policy Cr. 3.
- SPEA V377 - Legal Process and Contemporary Issues in America Cr. 3.
- SPEA V405 - Public Law and the Legislative Process Cr. 3.

Elective Courses Credits: 12

Choose 4 courses from the following. A minimum of 6 credits must be SPEA courses.

- BUS L303 - Commercial Law II Cr. 3.
- HIST A310 - Survey of American Indians I Cr. 3.
- HIST A311 - Survey of American Indians II Cr. 3.
- HIST A349 - Afro-American History Cr. 3.
- HIST H260 - History of Women in the United States Cr. 3.
- JOUR J300 - Communications Law Cr. 3.
- PHIL 26000 - Philosophy and Law Cr. 3.
- POLS Y328 - Women and the Law Cr. 3.
- SPEA H441 - Legal Aspects of Healthcare Administration Cr. 3.
- SPEA J301 - Substantive Criminal Law Cr. 3.
- SPEA J302 - Procedural Criminal Law Cr. 3.

- SPEA V406 - Public Law and the Electoral Process Cr. 3.
- SPEA V456 - Topics in Public Law Cr. 3.

E. Public Management Credits: 27

- SPEA V263 - Public Management Cr. 3.
- SPEA V264 - Urban Structure and Policy Cr. 3.
- SPEA V348 - Management Science Cr. 3.
- SPEA V366 - Managing Behavior in Public Organizations Cr. 3.
- SPEA V372 - Government Finance and Budgets Cr. 3.
- SPEA V376 - Law and Public Policy Cr. 3.

Three Additional SPEA Electives Approved By Advisor Credits: 9

A maximum of 6 credits may be earned in SPEA V380, Internship in Public Affairs.

- SPEA V380 - Internship in Public Affairs Cr. 1-6.

F. Specialized Study Major Credits: 27

This major is intended for students, often working professionals, with special needs regarding a course of study in Public Affairs. The courses for the major must be approved by a faculty advisor in the Division of Public and Environmental Affairs. The minimum guidelines are nine courses at the 300-400 level, four of which must be SPEA courses.

IV. General Electives Credits: 25–28

Additional courses of interest should be selected to raise the total credits to the required 120 for the BSPA degree. Students majoring in Criminal Justice or Legal Studies need an additional 25 credits minimum. Students majoring in Environmental Policy, Health Services Administration, Public Management, or Specialized Study need an additional 28 credits minimum.

Total Credits: 120

Secondary Education-Adolescence/Young Adulthood Concentration (B.S.Ed.)

Program: B.S.Ed.
Department of Educational Studies
School of Education

Neff Hall 250 ~ 260-481-6441~ www.ipfw.edu/educ

The student learning outcomes for the degree are as follows:

- Becoming more caring, humane and functional citizens in a global, multicultural, democratic society
- Improving the human condition by creating positive learning environments
- Becoming change agents by demonstrating reflective professional practice
- Solving client problems through clear, creative analyses
- Assessing client performance, creating and executing effective teaching, counseling, and educational leadership by utilizing a variety of methodologies reflecting current related research
- Utilizing interdisciplinary scholarship, demonstrating technology and critical literacies, and effectively communicating with all stakeholders.

The B.S.Ed. in secondary education is intended to prepare students for successful careers as teachers of children in middle school/junior high and high school settings. The secondary education degree is divided into two concentrations: early adolescence, for middle school/junior high settings, and adolescence/young adulthood, for high school settings. Pre-service teachers must choose one or both concentrations to complete the degree. Upon satisfactory completion of the program, and the other requirements listed under Teacher Licensure in the Special Academic Regulations, you are eligible to apply for an Indiana teaching license.

To earn the B.S.Ed. in secondary education with a concentration in adolescence/young adulthood, you must satisfy the requirements of IPFW (see Part 8) and the School of Education.

School Setting: High School (grades 9-12)

General Education Credits: 45

School of Education Credits: 34

Content Area Majors, variable credits depending on the program

Elective credits variable, but must be at least 124.

IPFW General Education Requirements Credits: 45

Area I—Linguistic and Numerical Foundations Credits: 12

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
  (grade of B or better required)
- ENG W131 - Elementary Composition I Cr. 3.
  (grade of B or better required)
- ENG W233 - Intermediate Expository Writing Cr. 3.

Any college-level math including: Credits: 3

- MA 15300 - Algebra and Trigonometry I Cr. 3.
- MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
- STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 9

- Biology Credits: 3

Two of the following: Credits: 6

- ANTH B200 - Bioanthropology Cr. 3.
  astronomy, chemistry, geology, or physics

Area III—The Individual, Culture, and Society Credits: 9

One of the following: Credits: 3

- American history or world history or humanities (FWAS H201 or H202)

One of the following: Credits: 3

- political science or sociology

One of the following: Credits: 3

- anthropology, business, economics, folklore, journalism, linguistics, psychology, or public and environmental affairs

Area IV—Humanistic Thought Credits: 9

- English Literature Credits: 3

One of the following: Credits: 3

- INTR 22000 - Architecture and Urban Form Cr. 3.
  or fine arts or music

One of the following: Credits: 3

- film or philosophy or theatre

Area V—Creative and Artistic Expression Credits: 3

Area VI- Inquiry and Analysis Credits: 3

School of Education Requirements

Initial Requirements:

Prior to being admitted to the Block 1: Teacher Education program you must complete the following initial requirements:

- PPST (Pre-Professional Skills Test)
- EDUA F300 - Topical Exploration in Education Cr. 1-3.
  Course Title: Invitation to Teaching - Credits: 2
- EDUC K201 - Schools, Society, and Exceptionality Cr. 1-3.
  Credits: 1
- EDUC M101 - Laboratory/Field Experience Cr. 0-3.
  Credits: 0
- EDUC W200 - Using Computers for Education Cr. 1.
  (a grade of B or better is required)

Block 1: Teacher Education

- EDUC H340 - Education and American Culture Cr. 2-3.
  Credits: 3
- EDUC K206 - Teaching Methods for Students with Special Needs Cr. 1-3.
  Credits: 3
- EDUC M201 - Laboratory/Field Experience Cr. 0-3.
  Credits: 0
- EDUC P250 - General Educational Psychology Cr. 1-4.
  Credits: 3

Block 2: Professional Education (P: Block 1)

- EDUC M201 - Laboratory/Field Experience Cr. 0-3.
  Credits: 0
- EDUC P253 - Educational Psychology for Secondary Teachers Cr. 1-4.
  Credits: 3
- EDUC X401 - Critical Reading in the Content Area Cr. 1-3.
  Credits: 3

One methods course from your content major: Credits: 3

- EDUC M443 - Methods of Teaching High School Social Studies Cr. 3.
- EDUC M445 - Methods of Teaching Foreign Languages Cr. 3.
- EDUC M447 - Methods of Teaching High School English Cr. 3.
- EDUC M448 - Methods of Teaching High School Mathematics Cr. 2-4.
  Credits: 3
- EDUC M449 - Methods of Teaching Science in the Secondary Schools Cr. 3.

and

- EDUC M401 - Laboratory/Field Experience Cr.0-3.
  Credits: 0

Block 3: Teaching Major

In addition to the above courses, you must complete one content area major. See list of majors and courses below.

Student Teaching

- EDUC M501 *Portfolio* Cr. 0
- EDUC M480 - Student Teaching in the Secondary School Cr. 1-16.
  Credits: 12

Optional:

- EDUC M470 - Practicum Cr. 3-8.
  (for Middle School Endorsement area)
  Credits: 4

Electives (Variable)

Total Credits: 124

Core Content Area Majors

Below is a list of teaching content area majors.

Earth and Space Science Teaching Major (39–40 credits)

- AST A100 - The Solar System Cr. 3.
- CHM 11500 - General Chemistry Cr. 4.
- EDUC Q400 - Man and Environment: Instructional Methods Cr. 3.
- GEOL G104 - Earth Science: Evolution of the Earth Cr. 3.
- GEOL G210 - Oceanography Cr. 3.
- GEOL G211 - Introduction to Paleobiology Cr. 3.
- GEOL G221 - Introductory Mineralogy Cr. 3-4.
  Credits: 3
- GEOL G222 - Introduction to Petrology Cr. 3-4.
- GEOL G334 - Principles of Sedimentology and Stratigraphy Cr. 3-4.
- GEOL G420 - Regional Geology Field Trip Cr. 1-2.
  Credits: 2

One of the following: Credits 3-4

- GEOG G107 - Physical Systems of the Environment Cr. 3.
  w/GEOL L100
- GEOL G100 - General Geology Cr. 3-5.
  w/GEOL L100
- GEOL G103 - Earth Science: Materials and Processes Cr. 3.
- GEOL L100 - General Geology Laboratory Cr. 1-2.

Two of the following: Credits: 6

- GEOG G315 - Environmental Conservation Cr. 3.
- GEOL G300 - Environmental and Urban Geology Cr. 3.
- GEOL G415 - Geomorphology Cr. 3-4.

French Teaching Major (46 credits)

- FREN F3xx-4xx - Literature Electives (300–400 level) Credits: 6
- FREN F3xx-4xx - Electives (300–400 level) Credits: 9
- FREN F111 - Elementary French I Cr. 4.
- FREN F112 - Elementary French II Cr. 4.
- FREN F203 - Second-Year French I Cr. 3.
- FREN F204 - Second-Year French II Cr. 3.
- FREN F213 - Second-Year French Composition Cr. 3.
- ILCS I300 - Methods of Research and Criticism Cr. 3.
- FREN F317 - French Language Skills I Cr. 3.
- FREN F318 - French Language Skills II Cr. 3.
- FREN F325 - Oral French for Teachers Cr. 3-8.
  Credits: 3

One of the following: Credits: 3

- FREN F463 - Civilisation Francaise I Cr. 3.
- FREN F464 - Civilisation Francaise II Cr. 3.

German Teaching Major (44 credits)

- GER 3XX - Literature Elective (300 level) Credits: 3
- GER G3xx - Elective (300 level) Credits: 3
- GER G4xx - Electives (400 level) Credits: 12
- GER G111 - Elementary German I Cr. 4.
- GER G112 - Elementary German II Cr. 4.
- GER G203 - Second-Year German I Cr. 3.
- GER G204 - Second-Year German II Cr. 3.
- ILCS I300 - Methods of Research and Criticism Cr. 3.
- GER G318 - German Language Skills I Cr. 3-5.
  Credits: 3
- GER G325 - German for Teachers Cr. 3.

One of the following: Credits: 3

- GER G362 - Introduction to Contemporary Germany Cr. 3.
- GER G363 - Deutsche Kulturgeschichte Cr. 3.
- GER G463 - German Culture Cr. 3.
- GER G464 - Kultur Und Gesellschaft Cr. 3.

Language Arts (English) Teaching Major (39 credits)

- ENG L391 - Literature for Young Adults Cr. 3.
- ENG W103 - Introductory Creative Writing Cr. 3.
- ENG W400 - Issues in Teaching Writing Cr. 3.

One of the following in writing: Credits: 3

- ENG L202 - Literary Interpretation Cr. 3.
- ENG W233 - Intermediate Expository Writing Cr. 3.

Two of the following in language study Credits: 6

- ANTH L200 - Language and Culture Cr. 3.
- ENG G205 - Introduction to the English Language Cr. 3.
- ENG G206 - Introduction to the Study of Grammar Cr. 3.
- ENG G301 - History of the English Language Cr. 3.
- LING L103 - Introduction to the Study of Language Cr. 3.
- LING L360 - Language in Society Cr. 3.

One of the following in pre-1700 British literature: Credits: 3

- ENG L220 - Introduction to Shakespeare Cr. 3.
- ENG L301 - Critical and Historical Survey of English Literature I Cr. 3.
- ENG L304 - Old English Language and Literature Cr. 3.
- ENG L305 - Chaucer Cr. 3.
- ENG L306 - Middle English Literature Cr. 3.
- ENG L308 - Elizabethan Drama and Its Background Cr. 3.
- ENG L309 - Elizabethan Poetry Cr. 3.
- ENG L315 - Major Plays of Shakespeare Cr. 3.
- ENG L317 - English Poetry of the Early 17th Century Cr. 3.
- ENG L318 - Milton Cr. 3.

One of the following in post-1700 British literature: Credits: 3

- ENG L302 - Critical and Historical Survey of English Literature II Cr. 3.
- ENG L322 - English Literature, 1660-1789 Cr. 3.
- ENG L332 - Romantic Literature Cr. 3.

- ENG L335 - Victorian Literature Cr. 3.
- ENG L345 - 20th Century British Poetry Cr. 3.
- ENG L346 - 20th Century British Fiction Cr. 3.
- ENG L347 - British Fiction to 1800 Cr. 3.
- ENG L348 - 19th Century British Fiction Cr. 3.
- ENG L369 - Studies in British and American Authors Cr. 3.

One of the following in American literature: Credits: 3

- ENG L250 - American Literature Before 1865 Cr. 3.
- ENG L251 - American Literature Since 1865 Cr. 3.
- ENG L354 - American Literature Since 1914 Cr. 3.
- ENG L357 - 20th Century American Poetry Cr. 3.
- ENG L358 - 20th Century American Fiction Cr. 3.
- ENG L369 - Studies in British and American Authors Cr. 3.
- ENG L372 - Contemporary American Fiction Cr. 3.
- ENG L381 - Recent Writing Cr. 3.

One of the following in ethnic, minority, or non-Western: Credits: 3

- ENG L107 - Masterpieces of Asia Cr. 3.
- ENG L108 - Introduction to Contemporary Literature Cr. 3.
- ENG L364 - Native American Literature Cr. 3.
- ENG L369 - Studies in British and American Authors Cr. 3.
- ENG L379 - American Ethnic and Minority Literature Cr. 3.
- ENG L381 - Recent Writing Cr. 3.

One of the following in Western literature, other than British or American: Credits: 3

- CLAS C205 - Classical Mythology Cr. 3.
- CLAS C405 - Comparative Mythology Cr. 3-4.
  Credits: 3
- ENG L101 - Western World Masterpieces I: Ancient to Renaissance Cr. 3.
- ENG L362 - Modern Drama Cr. 3.

One of the following in mass communications, film, or journalism: Credits: 3

- COM 21000 - Debating Public Issues Cr. 3.
- COM 25000 - Mass Communication and Society Cr. 3.
- FILM K101 - Introduction to Film Cr. 3.
- JOUR C200 - Mass Communications Cr. 3.
- JOUR J110 - Foundations of Journalism and Mass Communication Cr. 3.

One elective in English, linguistics, or mass communications (other than COM 114) Credits: 3

Social Studies Teaching Major (51–60 credits)

Must complete all course work in 3 content areas plus one course from each of the other two content areas (diversified credit) to complete the major.

Economics (15 credits)

- Economics elective Credits: 3

- Economics elective (300–400 level) Credits: 3
- ECON E201 - Introduction to Microeconomics Cr. 3.
- ECON E202 - Introduction to Macroeconomics Cr. 3.

One of the following: Credits: 3

- ECON E321 - Intermediate Microeconomic Theory Cr. 3.
- ECON E322 - Intermediate Macroeconomic Theory Cr. 3.

Government and Citizenship (15 credits)

- Political science electives (300–400 level) Credits: 6
- POLS Y103 - Introduction to American Politics Cr. 3.

Two of the following: Credits: 6

- POLS Y105 - Introduction to Political Theory Cr. 3.
- POLS Y107 - Introduction to Comparative Politics Cr. 3.
- POLS Y109 - Introduction to International Relations Cr. 3.

Historical Perspectives (24 credits)

American Civilization

- HIST elective (American) Credits: 3

- HIST elective (American) (300–400 level) Credits: 3
- HIST H105 - American History I Cr. 3.
- HIST H106 - American History II Cr. 3.

World Civilization

- HIST elective (non-American) Credits: 3

- HIST elective (non-American) (300-400 level) Credits: 3
- HIST H113 - History of Western Civilization I Cr. 3.
- HIST H114 - History of Western Civilization II Cr. 3.

Psychology (15 credits)

- PSY 12000 - Elementary Psychology Cr. 3.

One of the following: Credits 3

- PSY 23500 - Child Psychology Cr. 3.
- PSY 24000 - Introduction to Social Psychology Cr. 3.
- PSY 36900 - Development Across the Lifespan Cr. 3.

One of the following: Credits 3

- PSY 31400 - Introduction to Learning Cr. 3.
- PSY 32900 - Psychobiology II: Principles of Psychobiological Psychology Cr. 3.
- PSY 41600 - Cognitive Psychology Cr. 3.

One PSY Elective Credits: 3

- PSY 35000 - Abnormal Psychology Cr. 3.
- PSY 42000 - Introduction to Personality Theory Cr. 3.

Sociology (15 credits)

- SOC S161 - Principles of Sociology Cr. 3.
- SOC electives (any level) Credits: 6
- SOC electives (300–400 level) Credits: 6

Diversified Credits: 6

Spanish Teaching Major (53 credits)

- SPAN S4XX Elective (400 level) Credits: 3
- SPAN S111 - Elementary Spanish I Cr. 4.
- SPAN S112 - Elementary Spanish II Cr. 4.
- SPAN S203 - Second-Year Spanish I Cr. 3.
- SPAN S204 - Second-Year Spanish II Cr. 3.
- SPAN S275 - Hispanic Culture and Conversation Cr. 3.
- ILCS I300 - Methods of Research and Criticism Cr. 3.
- SPAN S301 - The Hispanic World I Cr. 3.
- SPAN S302 - The Hispanic World II Cr. 3.
- SPAN S311 - Spanish Grammar Cr. 3.

- SPAN S312 - Written Composition in Spanish Cr. 3.
- SPAN S317 - Spanish Conversation and Diction Cr. 3.
- SPAN S488 - Spanish for Teachers Cr. 3.

One of the following: Credits: 3

- SPAN S407 - Survey of Spanish Literature I Cr. 3.
- SPAN S408 - Survey of Spanish Literature II Cr. 3.

One of the following: Credits: 3

- SPAN S425 - Spanish Phonetics Cr. 3.
- SPAN S426 - Introduction to Spanish Linguistics Cr. 3.
- SPAN S428 - Applied Spanish Linguistics Cr. 3.

One of the following: Credits: 3

- SPAN S471 - Spanish-American Literature I Cr. 3.
- SPAN S472 - Spanish-American Literature II Cr. 3.

One of the following: Credits: 3

- SPAN S411 - Spain: The Cultural Context Cr. 3.
- SPAN S412 - Spanish America: The Cultural Context Cr. 3.
- SPAN S413 - Hispanic Culture in the U.S. Cr. 3.

Notes

Students completing the adolescence/young adulthood concentration may also add additional middle school/junior high teaching areas by completing any of the middle school/junior high endorsements and completing a middle school practicum.

Other IPFW departments offer degrees that lead to teacher certification. They include art education, biology, chemistry, mathematics, music education, and physics. Please refer to these departments in their appropriate Part 4 sections of this Bulletin for more information and course requirements.

Secondary Education-Early Adolescence Concentration (B.S.Ed.)

Program: B.S.Ed.
Department of Educational Studies
School of Education

Neff Hall 250 ~ 260-481-6441~ www.ipfw.edu/educ

The student learning outcomes for the degree are as follows:

- Becoming more caring, humane and functional citizens in a global, multicultural, democratic society
- Improving the human condition by creating positive learning environments
- Becoming change agents by demonstrating reflective professional practice
- Solving client problems through clear, creative analyses
- Assessing client performance, creating and executing effective teaching, counseling, and educational leadership by utilizing a variety of methodologies reflecting current related research
- Utilizing interdisciplinary scholarship, demonstrating technology and critical literacies, and effectively communicating with all stakeholders.

The B.S.Ed. in secondary education is intended to prepare students for successful careers as teachers of children in middle school/junior high and high school settings. The secondary education degree is divided into two concentrations: early adolescence, for middle school/junior high settings, and adolescence/young adulthood, for high school settings. Pre-service teachers must choose one or both concentrations to complete the degree. Upon satisfactory completion of the program, and the other requirements listed under Teacher Licensure in the Special Academic Regulations, you are eligible to apply for an Indiana teaching license.

To earn the B.S.Ed. in secondary education with an early adolescence concentration, you must satisfy the requirements of IPFW (see Part 8) and the School of Education.

School Setting: Middle School/Junior High (grades 6-8)

General Education Credits: 45

School of Education Credits: 34

Content Area Minors (must select 2) Credits: 48

Some content area minor credits will overlap with general education credits.

- Language Arts Credits: 24

- Mathematics Credits: 24

- Science Credits: 24

- Social Studies Credits: 24

Elective credits variable, but must be at least 124.

IPFW General Education Requirements Credits: 45

Area I—Linguistic and Numerical Foundations Credits: 12

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
  (a grade of B or better is required)
- ENG W131 - Elementary Composition I Cr. 3.
  (a grade of B or better is required)

- ENG W233 - Intermediate Expository Writing Cr. 3.

Any college-level math including: Credits: 3

- MA 15300 - Algebra and Trigonometry I Cr. 3.
- MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
- STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 9

See Part 2 General Education Requirements for approved courses

- Biology Credits: 3

- Two of the following: Credits: 6
- ANTH B200 - Bioanthropology Cr. 3.
  astronomy, chemistry, geology, or physics

Area III—The Individual, Culture, and Society Credits: 9

See Part 2 General Education Requirements for approved courses

One of the following: Credits: 3

- American history or world history or humanities (FWAS H201 or H202)

One of the following: Credits: 3

- political science or sociology

One of the following: Credits: 3

- anthropology, business, economics, folklore, journalism, linguistics, psychology, or public and environmental affairs

Area IV—Humanistic Thought Credits: 9

See Part 2 General Education Requirements for approved courses

- English literature Credits: 3

One of the following: Credits: 3

- INTR 22000 - Architecture and Urban Form Cr. 3.
  or fine arts or music

One of the following: Credits: 3

- film or philosophy or theatre

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses

School of Education Requirements

Initial Requirements:

- PPST (Pre-Professional Skills Test)
- EDUA F300 - Topical Exploration in Education Cr. 1-3.
  Course Title: Invitation to Teaching - Credits: 2
- EDUC K201 - Schools, Society, and Exceptionality Cr. 1-3.
  Credits: 1
- EDUC M101 - Laboratory/Field Experience Cr. 0-3.
  Credits: 0
- EDUC W200 - Using Computers for Education Cr. 1.
  (a grade of B or better is required)

Block 1: Teacher Education

- EDUC H340 - Education and American Culture Cr. 2-3.
  Credits: 3
- EDUC K206 - Teaching Methods for Students with Special Needs Cr. 1-3.
  Credits: 3
- EDUC M201 - Laboratory/Field Experience Cr. 0-3.
  Credits: 0
- EDUC P250 - General Educational Psychology Cr. 1-4.
  Credits: 3

Block 2: Professional Education

- EDUC M201 - Laboratory/Field Experience Cr. 0-3.
  Credits: 0
- EDUC M401 - Laboratory/Field Experience Cr.0-3.
  Credits: 0
- EDUC P253 - Educational Psychology for Secondary Teachers Cr. 1-4.
  Credits: 3
- EDUC S405 - The Middle and Junior High School Cr. 3.
- EDUC X401 - Critical Reading in the Content Area Cr. 1-3.
  Credits: 3

Block 3: Core Content Area Minors

In addition to the above courses, you must complete 24 credit hours in two of four core content area minors (See course requirements for core content area minors listed below)

Student Teaching

- EDUC M501 - Portfolio Credits: 0
- EDUC M480 - Student Teaching in the Secondary School Cr. 1-16.
  Credits: 12

Optional:

- EDUC M470 - Practicum Cr. 3-8.
  (for an additional concentration area)
  Credits: 4

Electives (Variable)

Total Credits: 124

Core Content Area Minors (24 credits)

In addition to the above courses, you must complete 24 credit hours in two of four core content area minors.

Language Arts (24 credits)

- British literature elective (300 level or higher) Credits: 3

- American literature elective (300 level or higher) Credits: 3

One of the following: Credits: 3

- ENG L101 - Western World Masterpieces I: Ancient to Renaissance Cr. 3.
- ENG L102 - Western World Masterpieces II: Renaissance to Modern Cr. 3.

One of the following: Credits: 3

- ENG L202 - Literary Interpretation Cr. 3.
- ENG W233 - Intermediate Expository Writing Cr. 3.

One of the following: Credits: 3

- ENG G205 - Introduction to the English Language Cr. 3.
- ENG G206 - Introduction to the Study of Grammar Cr. 3.

- LING L103 - Introduction to the Study of Language Cr. 3.

One of the following: Credits: 3

- COM 25000 - Mass Communication and Society Cr. 3.
- JOUR C200 - Mass Communications Cr. 3.

One of the following: Credits: 3

- ENG L390 - Children's Literature Cr. 3.
- ENG L391 - Literature for Young Adults Cr. 3.

One of the following: Credits: 3

- EDUC E340 - Methods of Teaching Reading I Cr. 2-3.
  Credits: 3
- EDUC X401 - Critical Reading in the Content Area Cr. 1-3.
  Credits: 3

Mathematics (24 credits)

- Computer science elective Credits: 3

- Mathematics, computer science, or statistics electives Credits: 2–3
- MA 10100 - Mathematics for Elementary Teachers I Cr. 3.
- MA 10200 - Mathematics for Elementary Teachers II Cr. 3.
- MA 10300 - Mathematics for Elementary Teachers III Cr. 3.
- MA 15300 - Algebra and Trigonometry I Cr. 3.
  (or waiver)
- STAT 12500 - Communicating with Statistics Cr. 3.
  (or higher)

One of the following: Credits: 3-4

- MA 16500 - Analytic Geometry and Calculus I Cr. 4.
- MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.

Science (24 credits)

- Science electives Credits: 0-2
- AST A100 - The Solar System Cr. 3.
- BIOL 10000 - Introduction to the Biological World Cr. 3.
  and
- BIOL 10001 - Introduction to the Biological World Laboratory Cr. 1.
- CHM 11100 - General Chemistry Cr. 3.
- GEOL G100 - General Geology Cr. 3-5.

One of the following: Credits: 3

- BIOL 34900 - Environmental Science Cr. 3.
- GEOG G315 - Environmental Conservation Cr. 3.
- GEOL G300 - Environmental and Urban Geology Cr. 3.

One of the following: Credits: 3-5

- PHYS 13100 - Concepts in Physics I Cr. 3.
- PHYS 15200 - Mechanics Cr. 5.

One of the following: Credits: 3

- EDUC Q200 - Introduction to Scientific Inquiry Cr. 1-3.
  Credits: 3
- EDUC Q400 - Man and Environment: Instructional Methods Cr. 3.

Social Studies (24 credits)

- American History Credits: 3

- Sociology Credits: 3

- Political Science Credits: 3

- Social Studies electives Credits: 6
- PSY 12000 - Elementary Psychology Cr. 3.

One of the following: Credits: 3

- ECON E200 - Fundamentals of Economics Cr. 3.
- ECON E201 - Introduction to Microeconomics Cr. 3.

One of the following: Credits: 3

- FWAS H201 - Humanities I: The Ancient World Cr. 3.
- FWAS H202 - Humanities II: Foundations of the Modern Western World Cr. 3.
- HIST H232 - The World in the 20th Century Cr. 3.

Sociology (B.A.)

Program: B.A.
Department of Sociology
College of Arts and Sciences

Liberal Arts Building 241 ~ 260-481-6842 ~ www.ipfw.edu/sociology

The student learning outcomes for the degree are as follows:

- **Theoretical:** Graduates will be able to analyze and evaluate major theoretical perspectives in sociology.

  - Graduates should be able to identify the general theoretical orientation.
  - Graduates should be able to apply theoretical analyses of social structure and social processes.
  - Graduates should be able to interpret social issues in terms of the major theoretical perspectives.

- **Methodological:** Graduates will be able to utilize and evaluate research methods and data analysis used in sociology.

  - Graduates should be able to demonstrate appropriate use of both quantitative and qualitative methodologies.

  - Graduates should be able to evaluate different research methods.

- Graduates should be able to interpret the results of data gathering.
- Graduates should be able to demonstrate appropriate use of statistical techniques.
- Graduates should be able to demonstrate competent use of statistical software.
- **Critical Thinking:** Graduates will be able to evaluate critically arguments and situations.

  - Graduates should be able to critically evaluate theoretical arguments.
  - Graduates should be able to develop evidence-based arguments.
  - Graduates should be able to critically evaluate published research.

- **Communication Skills:** Graduates will be able to communicate effectively in both written and oral form.

  - Graduates should be able to write a research report.
  - Graduates should be able to develop an oral research report.

- **Professional Ethics:** Graduates will be knowledgeable of appropriate ethics concerning both professional conduct and the use of human subjects.

  - Graduates should demonstrate a mastery of the ethical standards for conducting research with human subjects.
  - Graduates should demonstrate an understanding of the ethical standards of the American Sociological Association.

Courses in sociology provide an understanding of society and of the relationship between the individual and society. Studies in sociology help to prepare you for graduate school and careers in the social services, law, human relations, criminal justice, government, education, and mass media.

Although a minor is not required, study in an outside area is recommended. Anthropology, computer science, economics, history, labor studies, political science, psychology, organizational leadership and supervision, and women's studies support the major well.

To earn a B.A. with a major in sociology, you must fulfill the requirements of IPFW (see Part 8) and the College of Arts and Sciences (see Part 4), and satisfactorily complete the following courses.

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

- COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of the following: Credits: 3

- ENG W131 - Elementary Composition I Cr. 3.
- ENG W140 - Elementary Composition Honors Cr. 3.

One of the following: Credits: 3

- MA 15300 - Algebra and Trigonometry I Cr. 3.
- MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society

See Part 2 General Education Requirements for approved courses

- Additional credits in Area III Credits: 3
- SOC S161 - Principles of Sociology Cr. 3.

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (not in SOC) Credits: 3

See Part 2 General Education Requirements for approved courses

College of Arts and Sciences Requirements

English Writing

- SOC S260 - Intermediate Sociological Writing Cr. 3.
  (credits included in Major Courses, below)

Foreign Language

- Requirements in Arts and Sciences Part B Credits: 14

Distribution (not in SOC)

- Requirements in Arts and Sciences Part C Credits: 9

Cultural Studies

- Requirements in Arts and Sciences Part D Credits: 6

Core and Concentration (Major) Courses

- SOC S161 - Principles of Sociology Cr. 3.
- SOC S260 - Intermediate Sociological Writing Cr. 3.
- SOC S340 - Social Theory Cr. 3.
- SOC S351 - Social Statistics Cr. 3.
- SOC S352 - Methods of Social Research Cr. 3.
- SOC S494 - Field Experience in Sociology Cr. 3.
  or
- SOC S470 - Senior Seminar Cr. 3.

Sociology Elective Courses Credits: 15

All additional sociology elective courses must be at the 200 level or above; 9 of the 15 credit hours must be at the 300 level or above.

General Elective Courses

- Sufficient additional credits to bring the total to 124.

Total Credits: 124

Spanish (B.A.)

Program: B.A.
Department of International Language and Culture Studies
College of Arts and Sciences

Liberal Arts Building 267 ~ 260-481-6836 ~ www.ipfw.edu/ilcs/

The student learning outcomes for the degree are as follows:

- Acquire a broad foundation in language, literature, and culture in preparation for graduate studies or for a career where proficiency in a foreign language and international perspectives are important assets;
- Achieve the ACTFL intermediate-high level in speaking, demonstrate the ability to recognize and analyze grammatical and usage errors in own and others' writing;
- Develop an increased understanding of what it means to belong to a culture and awareness of how culture affects other interconnected issues of identity;
- Demonstrate the ability to think critically about these issues and how they shape intercultural communication.

To earn the B.A. with a major in Spanish, you must fulfill the requirements of IPFW (see Part 8) and the College of Arts and Sciences (see Part 4) and satisfactorily complete the following requirements:

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

- COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of the following: Credits: 3

- ENG W131 - Elementary Composition I Cr. 3.
- ENG W140 - Elementary Composition Honors Cr. 3.

One of the following: Credits: 3

- MA 15300 - Algebra and Trigonometry I Cr. 3.
- MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
- STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society

- LING L103 - Introduction to the Study of Language Cr. 3.

One of the following: Credits: 3

- HIST H232 - The World in the 20th Century Cr. 3.
- INTL I200 - Introduction to International Studies: Emerging Global Visions Cr. 3.

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (not in SPAN) Credits: 3

Recommended:

- ANTH E335 - Ancient Civilizations of Mesoamerica Cr. 3.
- ANTH P370 - Ancient Cultures of South America Cr. 3.
- LING L360 - Language in Society Cr. 3.

- WOST W301 - International Perspectives on Women Cr. 3.

College of Arts and Sciences Requirements

English Writing Credits: 0

- (requirement is satisfied by ILCS I300, listed below)

Foreign Language (10–14 credits)

- SPAN S111 - Elementary Spanish I Cr. 4.
- SPAN S112 - Elementary Spanish II Cr. 4.
  or
- SPAN S113 - Accelerated First Year Spanish Cr. 4.

Additional Foreign Language Requirements

- SPAN S203 - Second-Year Spanish I Cr. 3.
- SPAN S204 - Second-Year Spanish II Cr. 3.

Distribution (not in SPAN)

- Requirements in Arts and Sciences Part C Credits: 9

Cultural Studies

- Credits in Western tradition Credits: 3

- Non-Western culture requirement may be satisfied with one of the following courses Credits: 0

- SPAN S412 - Spanish America: The Cultural Context Cr. 3.
- SPAN S471 - Spanish-American Literature I Cr. 3.
- SPAN S472 - Spanish-American Literature II Cr. 3.
- SPAN S479 - Mexican Literature Cr. 3.
- SPAN S480 - Argentine Literature Cr. 3.

Core and Concentration (Major) Courses

- ILCS I300 - Methods of Research and Criticism Cr. 3.
- SPAN S275 - Hispanic Culture and Conversation Cr. 3.
- SPAN S301 - The Hispanic World I Cr. 3.
- SPAN S302 - The Hispanic World II Cr. 3.
- SPAN S311 - Spanish Grammar Cr. 3.
- SPAN S312 - Written Composition in Spanish Cr. 3.
- SPAN S317 - Spanish Conversation and Diction Cr. 3.

One of the following courses in Spanish linguistics: Credits: 3

- SPAN S425 - Spanish Phonetics Cr. 3.
- SPAN S426 - Introduction to Spanish Linguistics Cr. 3.
- SPAN S428 - Applied Spanish Linguistics Cr. 3.
- SPAN S495 - Hispanic Colloquium Cr. 1-3.
  The S495 course is a rotating topics course and may only count in the area of the specific topic.

One of the following courses in Spanish literature: Credits: 3

- SPAN S407 - Survey of Spanish Literature I Cr. 3.
- SPAN S408 - Survey of Spanish Literature II Cr. 3.
- SPAN S495 - Hispanic Colloquium Cr. 1-3.
  The S495 course is a rotating coursen and may only count in the area of the specific topic.

One of the following courses in Spanish-American literature: Credits: 3

- SPAN S471 - Spanish-American Literature I Cr. 3.
- SPAN S472 - Spanish-American Literature II Cr. 3.
- SPAN S495 - Hispanic Colloquium Cr. 1-3.
  The S495 course is a rotating coursen and may only count in the area of the specific topic.

Additional credits in 400-level Spanish civilization, language, or literature courses Credits: 6

General Elective Courses

- Sufficient additional credits to bring the total to 124.

Total Credits: 124

Spanish with Teacher Certification (B.A.)

Program: B.A. with Teacher Certification
Department of International Language and Culture Studies
College of Arts and Sciences

Liberal Arts Building 267 ~ 260-481-6836 ~ www.ipfw.edu/ilcs/

The student learning outcomes for the degree are as follows:

- Acquire a broad foundation in language, literature, culture and a knowledge of current methodologies in foreign language pedagogy;
- Achieve the ACTFL intermediate-high level in speaking, demonstrate the ability to recognize and analyze grammatical and usage errors in own and others' writing;

- Develop an increased understanding of what it means to belong to a culture and awareness of how culture affects other interconnected issues of identity;
- Demonstrate the ability to think critically about these issues and how they shape intercultural communication.

Students pursuing a B.A. with a major in Spanish with teacher certification must fulfill the requirements of IPFW (see Part 8), the College of Arts and Sciences (see Part 4), and the School of Education (see Part 4) and satisfactorily complete the following requirements.

Prior to your junior year, you must successfully complete the Pre-Professional Skills Test (PPST) before admission to the teacher education program. The Praxis II, Spanish: Content Knowledge test must be completed before or during the student-teaching semester, normally in your senior year.

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

- COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of the following: Credits: 3

- ENG W131 - Elementary Composition I Cr. 3.
- ENG W140 - Elementary Composition Honors Cr. 3.

One of the following: Credits: 3

- MA 15300 - Algebra and Trigonometry I Cr. 3.
- MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
- STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society Credits: 6

- LING L103 - Introduction to the Study of Language Cr. 3.

One of the following: Credits: 3

- HIST H232 - The World in the 20th Century Cr. 3.
- INTL I200 - Introduction to International Studies: Emerging Global Visions Cr. 3.

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (not in SPAN) Credits: 3

Recommended:

- ANTH E335 - Ancient Civilizations of Mesoamerica Cr. 3.
- ANTH P370 - Ancient Cultures of South America Cr. 3.
- LING L360 - Language in Society Cr. 3.
- WOST W301 - International Perspectives on Women Cr. 3.

College of Arts and Sciences Requirements

English Writing Credits: 0

 (requirement is satisfied by ILCS I300, listed below)

Foreign Language (10–14 credits)

- SPAN S111 - Elementary Spanish I Cr. 4.
- SPAN S112 - Elementary Spanish II Cr. 4.
  or
- SPAN S113 - Accelerated First Year Spanish Cr. 4.

Additional Foreign Language Requirements

- SPAN S203 - Second-Year Spanish I Cr. 3.
- SPAN S204 - Second-Year Spanish II Cr. 3.

Distribution (not in SPAN)

- Requirements in Arts and Sciences Part C Credits: 9

Cultural Studies

- Credits in Western tradition Credits: 3

- Non-Western culture requirement may be satisfied with the following courses Credits: 0

- SPAN S412 - Spanish America: The Cultural Context Cr. 3.
- SPAN S471 - Spanish-American Literature I Cr. 3.
- SPAN S472 - Spanish-American Literature II Cr. 3.
- SPAN S479 - Mexican Literature Cr. 3.
- SPAN S480 - Argentine Literature Cr. 3.

Core and Concentration (Major) Courses

- ILCS I300 - Methods of Research and Criticism Cr. 3.
- SPAN S275 - Hispanic Culture and Conversation Cr. 3.
- SPAN S301 - The Hispanic World I Cr. 3.
- SPAN S302 - The Hispanic World II Cr. 3.
- SPAN S311 - Spanish Grammar Cr. 3.
- SPAN S312 - Written Composition in Spanish Cr. 3.
- SPAN S317 - Spanish Conversation and Diction Cr. 3.
- SPAN S488 - Spanish for Teachers Cr. 3.

One of the following courses in Spanish linguistics: Credits: 3

- SPAN S425 - Spanish Phonetics Cr. 3.
- SPAN S426 - Introduction to Spanish Linguistics Cr. 3.
- SPAN S428 - Applied Spanish Linguistics Cr. 3.

One of the following courses in Spanish literature: Credits: 3

- SPAN S407 - Survey of Spanish Literature I Cr. 3.
- SPAN S408 - Survey of Spanish Literature II Cr. 3.

One of the following courses in Spanish-American literature: Credits: 3

- SPAN S471 - Spanish-American Literature I Cr. 3.
- SPAN S472 - Spanish-American Literature II Cr. 3.

One of the following culture/civilization courses: Credits: 3

- SPAN S411 - Spain: The Cultural Context Cr. 3.
- SPAN S412 - Spanish America: The Cultural Context Cr. 3.
- SPAN S413 - Hispanic Culture in the U.S. Cr. 3.

Additional credits in 400-level Spanish civilization, language, or literature courses Credits: 3

Professional Education

Prior to being admitted to the teacher education program, you must complete the Inital Requirement courses and pass the PPST.

Initial Requirements

- EDUC K201 - Schools, Society, and Exceptionality Cr. 1-3.
  Credits: 1
- EDUC M101 - Laboratory/Field Experience Cr. 0-3.
  Credits: 0

- EDUC W200 - Using Computers for Education Cr. 1.
  Credits: 1
- EDUA F300 - Topical Exploration in Education Cr. 1-3.

Block I

- EDUC H340 - Education and American Culture Cr. 2-3.
  Credits: 3
- EDUC K206 - Teaching Methods for Students with Special Needs Cr. 1-3.
  Credits: 3
- EDUC M201 - Laboratory/Field Experience Cr. 0-3.
  Credits: 0
- EDUC P250 - General Educational Psychology Cr. 1-4.
  Credits: 3

Block II

- EDUC M301 - Laboratory/Field Experience Cr. 0-3.
- EDUC M445 - Methods of Teaching Foreign Languages Cr. 3.
- EDUC P253 - Educational Psychology for Secondary Teachers Cr. 1-4.
- EDUC X401 - Critical Reading in the Content Area Cr. 1-3.

Student Teaching

- EDUC M480 - Student Teaching in the Secondary School Cr. 1-16.
  Credits: 12
- EDUC M501 - Lab/Field Experience Cr. 0-3.
  Credits: 0

Middle School Certification (Recommended)

- EDUC M470 - Practicum Cr. 3-8.
  Credits: 4

General Elective Courses

- Sufficient additional credits to bring the total to 124.

Total Credits: 124

Theatre (B.A.)

Program: B.A.
Department of Theatre
College of Visual and Performing Arts

The student learning outcomes for the degree are as follows:

- Demonstrate an understanding of the creative process using the vocabulary of the appropriate discipline.
- Perform or create a work of personal expression and bring the work to fruition using applicable skills.
- Articulate a reflective and critical evaluation of their own and other's efforts using written and/or oral communication.

To earn the B.A. with a major in theatre, you must satisfy the requirements of IPFW (see Part 8) and the College of Visual and Performing Arts (see Part 4), complete the following courses, earn a grade of C or better in each theatre course, and fulfill additional requirements specified in the theatre student handbook:

IPFW General Education Requirements (36 credits)

Area I—Linguistic and Numerical Foundations Credits: 9

- Reading/Writing Credits: 3

- Quantitative Reasoning Credits: 3
- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
- MA 15300 - Algebra and Trigonometry I Cr. 3.
  Or
- MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
  Or
- STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

- May not use THTR-prefixed course to fulfill requirement

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

- May not use THTR-prefixed course to fulfill requirement.

Area VI—Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses

Writing Requirements

- ENG W233 - Intermediate Expository Writing Cr. 3.

Theatre Core Courses (42 credits)

- THTR 13800 - Acting I Cr. 3.
- THTR 15800 - Stagecraft Cr. 3.
- THTR 16800 - Theatre Production I Cr. 1.
  Must take 4 semesters of this course, 4 credits total.
- THTR 20100 - Theatre Appreciation Cr. 3.
- THTR 21300 - Voice for the Actor Cr. 2.
- THTR 26100 - Introduction to Theatrical Design Cr. 3.
- THTR 28400 - Textual Analysis Cr. 3.
- THTR 35100 - Costume Techniques I Cr. 3.
- THTR 44000 - Directing: Page to Stage Cr. 3.
- THTR 47000 - Theatre and Society I Cr. 3.
- THTR 47100 - Theatre and Society II Cr. 3.
- THTR 50100 - Stage Management Cr. 3.

One of the following Design Courses: Credits: 3

- THTR 36000 - Scenic Design Cr. 3.
- THTR 36100 - Costume Design Cr. 3.
- THTR 36200 - Light Design Cr. 3.

Emphasis Area Credits: 18

Credits from emphasis area below

Elective Courses Credits: 31-49

- Sufficient elective credits to bring total to 124.

Total Credits: 124

Emphasis Areas

Acting (18 credits)

- THTR 23800 - Acting II Cr. 3.
- THTR 32300 - Acting: Movement for the Actor Cr. 2.
- THTR 33600 - Rehearsal and Performance II Cr. 1-2.

- THTR 33800 - Acting III Cr. 3.
- THTR 41300 - Advanced Voice for the Stage Cr. 3.
- THTR 43800 - Acting IV Cr. 3.

Choose one of the following dance courses

- DANC 10200 - Ballet I Cr. 2.
- DANC 10300 - Jazz Dance I Cr. 2.
- DANC 12100 - Tap Dance I Cr. 2.

Design and Technology (18 credits)

- THTR 26400 - Rendering Techniques Cr. 3.
- THTR 36500 - Period Style for the Theatre I Cr. 3.
- THTR 36600 - Period Style for the Theatre II Cr. 3.

Two of the following: Credits: 6

- THTR 36000 - Scenic Design Cr. 3.
- THTR 36100 - Costume Design Cr. 3.
- THTR 36200 - Light Design Cr. 3.

One of the following: Credits: 3

- THTR 56000 - Advanced Scenic Design Cr. 3.
- THTR 56100 - Advanced Costume Design Cr. 3.
- THTR 56200 - Advanced Light Design Cr. 3.

Directing (18 credits)

- THTR 13600 - Rehearsal and Performance I Cr. 1-2.
- THTR 23800 - Acting II Cr. 3.
- THTR 32300 - Acting: Movement for the Actor Cr. 2.
- THTR 36500 - Period Style for the Theatre I Cr. 3.
- THTR 36600 - Period Style for the Theatre II Cr. 3.
- THTR 54000 - Advanced Directing Cr. 3.

Choose one of the following design courses:

THTR 360 must be taken here if not taken in the Theatre B.A. Core

- THTR 36000 - Scenic Design Cr. 3.
- THTR 36100 - Costume Design Cr. 3.
- THTR 36200 - Light Design Cr. 3.

Visual Communication and Design

Program: B.F.A.
Department of Visual Communication and Design
College of Visual and Performing Arts

Visual Arts Building 213 ~ 260-481-6709 ~ *www.ipfw.edu/vpa/vcd*

The student learning outcomes for the degree are as follows:

- Visual Communication and Design provides an exceptional professional degree program which combines creative development in an artistic discipline with career preparation.
- Visual Communication and Design students demonstrate:
    - effective skills in written, oral, and multimedia communication while articulating their ideas in an appropriate media.
    - visual information literacy skills and quantitative reasoning as a means of gaining written and visual knowledge while drawing reliable conclusions in their chosen discipline.
- Visual Communication and Design students demonstrate:
    - effective skills in written, oral, and multimedia communication while articulating their ideas in an appropriate media.
    - visual information literacy skills and quantitative reasoning as a means of gaining written and visual knowledge while drawing reliable conclusions in their chosen discipline.
    - critical thinking and problem solving while also evaluating their ideas and technological competencies.
    - artistic and scholarly collaboration with continuous personal growth to the highest levels of personal integrity and professional ethics.
    - knowledge and skills based upon an understanding of historical traditions that formed one's own and other cultures
    - a commitment to mutual respect through free and open visual inquiry and communications.

The Bachelor of Fine Arts program includes general education, art/design history, visual art, and design studio courses and offers concentrations in computer art and design, graphic design, and photography.

Students are eligible for admission to the B.F.A. major after (1) completing 45 credits of study with a garde of C or better and a cumulative G.P.A. of 2.5 overall or higher and 3.0 in all required VCD and FINA courses and (2) receiving approval for admission by the faculty after a portfolio review. A student may not enroll in any course numbered 300 or above until these criteria are met.

Admission

The student must meet the requirements of IPFW. Admission to the Department of Visual Communication and Design does not confer acceptance to the B.F.A. major. Newly admitted students are assigned to either a pre-B.F.A. or A.S. program. Later acceptance to the B.F.A. area of concentration is dependent upon satisfying the requirements of a portfolio review.

IPFW General Education Requirements Credits: 33

Area I—Linguistic and Numerical Foundations Credits: 9

See Part 2 General Education Requirements for approved courses

- Quantitative reasoning course Credits: 3
- COM 11400 - Fundamentals of Speech Communication Cr. 3.

- ENG W131 - Elementary Composition I Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses

Art/Design History Credits: 12

- Credits in art/design history courses numbered 300 or above: 6
- FINA H111 - Ancient and Medieval Art Cr. 3.
- FINA H112 - Renaissance Through Modern Art Cr. 3.

Area of Concentration: Studio and Electives Credits: 75

Computer Art and Design

- Studio Electives in VCD or FINA Credits: 24
- FINA P151 - Design Fundamentals I-II Cr. 3.
- FINA P152 - Design Fundamentals I-II Cr. 3.
- PHIL 27500 - The Philosophy of Art Cr. 3.
- PHYS 12500 - Light and Color Cr. 3.
- VCD P243 - Photography Fundamentals Cr. 3.
- VCD P273 - Computer Art and Design I Cr. 3.
- VCD P356 - Package Design Cr. 3.
- VCD P357 - Display and Design Cr. 3.
- VCD P374 - Computer Art and Design II Cr. 3.
- VCD P475 - Computer Art and Design III Cr. 3.
- VCD P476 - Three-Dimensional Computer Modeling Cr. 3
- VCD P478 - Computer Animation Cr. 3.

- VCD P495 - Independent Study in Fine Arts Cr. 3.

Graphic Design

- Studio Electives in VCD or FINA Credits: 15
- FINA P121 - Drawing Fundamentals I-II Cr. 3.
- FINA P122 - Drawing Fundamentals I-II Cr. 3.
- FINA P151 - Design Fundamentals I-II Cr. 3.
- FINA P152 - Design Fundamentals I-II Cr. 3.
- FINA P226 - Painting Fundamentals II Cr. 3.
- VCD P253 - Principles of Graphic Design I Cr. 3.
- VCD P254 - Principles of Graphic Design II Cr. 3.
- VCD P261 - Layout and Finished Art Cr. 3.
- VCD P271 - Illustration I Cr. 3.
- VCD P272 - Illustration II Cr. 3.
- VCD P273 - Computer Art and Design I Cr. 3.
- VCD P356 - Package Design Cr. 3.
- VCD P357 - Display and Design Cr. 3.
- VCD P371 - Illustration III Cr. 3.
- VCD P372 - Illustration IV Cr. 3.
- VCD P374 - Computer Art and Design II Cr. 3.
- VCD P453 - Graphic Design III Cr. 3.
- VCD P454 - Graphic Design IV Cr. 3.
- VCD P475 - Computer Art and Design III Cr. 3.
- VCD P495 - Independent Study in Fine Arts Cr. 3.
  (or additional studio)

Photography

- Studio Electives in VCD or FINA Credits: 30
- FINA P151 - Design Fundamentals I-II Cr. 3.
- FINA P152 - Design Fundamentals I-II Cr. 3.
- PHIL 27500 - The Philosophy of Art Cr. 3.
- PHYS 12500 - Light and Color Cr. 3.
- VCD P273 - Computer Art and Design I Cr. 3.
- VCD P343 - Advanced Photography I Cr. 3.
- VCD P344 - Advanced Photography II Cr. 3.
- VCD P374 - Computer Art and Design II Cr. 3.
- VCD P443 - Advanced Photography III Cr. 3.
- VCD P444 - Advanced Photography IV Cr. 3.
- VCD P475 - Computer Art and Design III Cr. 3.
- VCD P495 - Independent Study in Fine Arts Cr. 3.
  (or additional studio)

Senior Project Credits: 6

Majors must complete a senior project in the elected area of concentration. This two-semester course requires of the student a project incorporating an in-depth study and exploration of an artistic endeavor. The senior project culminates in a B.F.A. thesis exhibition that is judged by the faculty and reviewed by the public. An artist's statement and project description is a requirement of the exhibition installation.

- VCD P450 - Senior Project Cr. 3.

Women's Studies (B.A.)

Program: B.A.
College of Arts and Sciences

Liberal Arts Building 35F ~ 260-481-6711 - www.ipfw.edu/wost

The student learning outcomes for the degree are as follows:

- demonstrate understanding of feminist approaches to research and learning in at least two disciplines
- demonstrate understanding of major categories of feminist critical analysis, such as gender, race, and class
- demonstrate understanding of how traditional fields of study or artistic canons are expanded and reshaped when the contributions of women are taken into consideration
- demonstrate the ability to think critically about issues in feminism past and present

Women's Studies is based on the premise that the study of women's experiences, concerns, social roles, and creativity is essential to our knowledge of humankind and society. Feminist scholarship and theory provide the knowledge and analytical tools necessary for a gender-balanced perspective on our world, both past and present. The Women's Studies Program affords you the opportunity to pursue feminist scholarship on women and gender through a variety of interdisciplinary courses.

In addition to the B.A. program, an Associate of Arts with a concentration in Women's Studies is available at IPFW. See College of Arts and Sciences in Part 4 for further information.

To earn the Bachelor of Arts with a major in Women's Studies, you must satisfy the requirements of IPFW (see Part 8) and the College of Arts and Sciences (see Part 4), and complete the following courses. Only women's studies courses in which you have earned a grade of C or better can be applied to the degree or used to satisfy prerequisites.

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

- COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of the following: Credits: 3

- ENG W131 - Elementary Composition I Cr. 3.
- ENG W140 - Elementary Composition Honors Cr. 3.

One of the following: Credits: 3

- MA 15300 - Algebra and Trigonometry I Cr. 3.
- MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.

- STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (not in WOST) Credits: 3

See Part 2 General Education Requirements for approved courses

College of Arts and Sciences Requirements

English Writing

- ENG W233 - Intermediate Expository Writing Cr. 3.
  (or other approved writing course)

Foreign Language

- Requirements in Arts and Sciences Part B Credits: 14

Distribution (not in WOST or cross-listed courses)

- Requirements in Arts and Sciences Part C Credits: 9

Cultural Studies

- Additional credits in Western tradition Credits: 3
- WOST W301 - International Perspectives on Women Cr. 3.
  (credits included in Major Requirements, below)

Core and Concentration (Major) Courses

- Credits in WOST or cross-listed humanities/visual arts Credits: 6

- Credits in WOST or cross-listed social science/science Credits: 6

- Additional credits in WOST or cross-listed courses Credits: 9
- WOST W210 - Introduction to Women's Studies Cr. 3.
- WOST W301 - International Perspectives on Women Cr. 3.
- WOST W400 - Topics in Women's Studies Cr. 3.

General Elective Courses

- Sufficient additional credits to bring the total to 124.

Total Credits: 124

Notes

A thematic focus of at least three courses (9 of the 30 credits in Major Requirements) must be selected in consultation with your women's studies advisor. The thematic focus provides coherence within this interdisciplinary major and can be defined in several ways: geographically (e.g., women in America, women in Western Europe); chronologically (e.g., women in antiquity, women of the Renaissance); by a category or issue (e.g., women and peace, women of color), and so on.

If you major in women's studies, you are also required to have a second major or one or more minors in other arts and sciences disciplines. If you elect to double-major in women's studies and another arts and sciences discipline, women's studies may be either your first or second major.

You may count the courses taken to fulfill this major toward arts and sciences distribution requirements wherever possible. However, no more than two courses may be applied to both majors.

If you elect to combine a women's studies major with one or more minors in other arts and sciences disciplines, you may count only two courses toward both the women's studies major and School of Arts and Sciences distribution requirements. Only one course may be counted toward both the women's studies major and any other minor.

Certificate

Accounting Post-Baccalaureate Certificate

Program: Certificate
Department of Accounting and Finance
Richard T. Doermer School of Business and Management Sciences

Neff Hall Room 350 ~ 260-481-6471 ~ www.ipfw.edu/bms

The Post-Baccalaureate Certificate in Accounting (P.B.A.) is offered by the Department of Accounting and Finance. Typically, students who pursue the P.B.A. are seeking an academic program of recognized quality that will help them prepare for careers in accounting. In combination with a bachelor's degree earned at an appropriately accredited institution, the P.B.A. meets the current minimum accounting educational requirements to sit for the Uniform Certified

Public Accounting Examination in Indiana if students select the correct electives. Additional nonaccounting business credits may be required.

Admission Admission to the P.B.A. program is limited to holders of bachelor's degrees awarded by institutions that were accredited at the baccalaureate level by the North Central Association of Colleges and Schools (or comparable regional association) at the time the degree was granted.

To enroll in the program, you must first be formally admitted to IPFW. You must provide the IPFW admissions office with official transcripts documenting completion of your bachelor's degree.

Certificate Requirements Individuals interested in the P.B.A. program should check with either the department (Neff 350) or the school's Student Success Center (Neff 366) for specific program requirements and further information.

Special Academic Regulations for P.B.A. Students

Performance Standards With the exception of the minimum GPA for retention, P.B.A. students are held to the performance standards specified for students in undergraduate business programs. See Business later in this part of the Bulletin.

Course Waivers You may be eligible for waivers of course requirements based upon academic courses taken as part of your bachelor's program if those courses were completed within the past five calendar years.

Advanced Manufacturing Management Certificate

Program: Certificate
Department of Manufacturing & Construction Engineering Technology and Interior Design
College of Engineering Technology, and Computer Science

Engineering, Technology, and Computer Science Building 221 ~ 260-481-4127 ~ www.mcet.ipfw.edu

This 18-hour credit certificate provides state-of-the-art training for working professionals who seek knowledge for career advancement in management and ownership roles in various manufacturing sectors - biomedical, military, automotive, electronics, construction, sports, and more.

To earn the certificate in advanced manufacturing management, you must satisfy the requirements of IPFW (), fulfill all course prerequisites, and satisfactorily complete the following courses with a grade of C or better, see Part 8

Program Requirements

- IET 10500 - Industrial Management Cr. 3.
- IET 20004 - Techniques of Maintaining Quality Cr. 3.
- IET 22400 - Production Planning and Control Cr. 3.
- IET 26700 - Work Methods Design Cr. 3.
- IET 35000 - Engineering Economy Cr. 3.
- IET 47800 - Lean Manufacturing and Design Cr. 3.

Students must be admitted to IPFW to register for thses courses.

Advanced Microprocessors Certificate

Program: Certificate
Department of Computer and Electrical Engineering Technology & Information Systems and Technology
College of Engineering Technology, and Computer Science

Engineering, Technology, and Computer Science Building 205 ~ 260-481-6338 ~ www.ceit.ipfw.edu

The *student learning outcomes for the certificate are as follows:*

Students earning the certificate will have

- The fundamental knowledge, skills, and techniques necessary to program and interface microcontrollers and microprocessors.
- The knowledge and ability to learn and interface other languages or microprocessor-based devices.

The certificate program in advanced microprocessors provides the theoretical and practical knowledge necessary to enable you to use microprocessors in industrial applications. Some highlights of the course sequence include electronic simulations and calculations; theoretical and laboratory applications of digital logic circuits, operational amplifiers, D/A and A/D converters, computer memory circuits; microprocessor assembly language, Visual Basic, and "C" programming; EEPROM and EPROM programming; microprocessors and microcontrollers; experimental applications; and applied, practical projects. Special emphasis is placed on embedded systems using microcontrollers.

The CEIT department also offers the Bachelor and Associate of Science with a major in electrical engineering technology, a Bachelor of Science with a major in computer engineering technology (CPET) and an Associate and Bachelor of Science with a major in information systems. In addition to the degrees, the department offers a minor in electronics, and minor in information systems and certificate programs in computer-controlled systems, electronic communications, and computer networking.

To earn the certificate in advanced microprocessors, you must satisfy the requirements of IPFW (see Part 8), fulfill all course prerequisites, and satisfactorily complete the following courses. This certificate is not available to any student with a major in EET (A.S. and/or B.S.) or CPET (B.S.).

Program Requirements

- ECET 11100 - Digital Circuits Cr. 4.
- ECET 20500 - Introduction to Microprocessors Cr. 4.
- ECET 26400 - C Programming Language Applications Cr. 3.
- ECET 30500 - Advanced Microprocessors Cr. 4.

One of the following:

- CS 11400 - Introduction to Visual Basic Cr. 3.
- ECET 11400 - Introduction to Visual Basic Cr. 3.

Advanced Microprocessors Project

- CPET 49900 - Computer Engineering Technology Cr. 1-4.

Total Credits: 19

American Studies Certificate

Program: Certificate in American Studies
College of Arts and Sciences

Liberal Arts Building 153 ~ 260-481-6160

The student learning outcomes for the degree are as follows:

- Students will examine American culture from a range of local, regional, and global perspectives.

- Students will develop skills in interdisciplinary, holistic, connected critical thinking, making connections between different fields of academic inquiry, and producing sustained, reasoned, critical analysis of American culture, society, and history.
- Students will develop critical self-awareness of how they as individuals have been shaped by their particular American experience as well as a broader understanding of the diverse cultures of the United States and the influential factors of gender, race, ethnicity, and religious background.
- Students will be able to put theory into practice through service-learning initiatives at local, arts, government, charitable and other appropriate organizations.

- American Studies is also committed to enriching the life of the campus and community through sponsoring speakers, films, visiting artist, and so on, fostering connections between the campus and community organizations, and facilitating research collaborations between Americanist faculty from different disciplines at IPFW.

The mission of the American Studies program is to produce engaged and thoughtful citizens who are aware of how they have been shaped by the American experience and how they can be responsible citizens both in a multicultural United States and in a global environment. Students in American Studies will analyze the place of America within the larger scope within its borders by the contributions of a variety of national and ethnic group, and by analysis of how America relates to and is perceived by countries outside its own borders.

Program Requirements

Required introductory course

- AMST A200 - Comparative American Identities Cr. 3.

Structure of other credits

- At least 6 credits must be at least at 300 level
- At least 6 credits must be taken in two additional areas of study outside of major field
- See History Department for list of pre-approved classes

Capstone

Choose one of the following courses

- AMST A440 - Senior Seminar in American Studies Cr. 3.
- AMST A441 - America in Global Perspective Cr. 3.

Total Credits: 18

Civic Education and Public Advocacy

Program: Certificate
Department of Political Science
College of Arts and Sciences

Liberal Arts Building 209 ~ 260-481-6686 ~ www.ipfw.edu/pols

The student learning outcomes for the degree are as follows:

- The certificate links methods, theory, and skills-based training with active student learning and community-based projects.

To earn the Certificate in Civic Education and Public Advocacy you will be required to complete 19 credit hours with a grade of C- or better in each course and with an overall GPA of 2.00 or higher.

Program Requirements

- POLS Y150 - Foundations of Community Advocacy Cr. 1-3.
  Credits: 1

Introduction To Government and Politics Credits: 3

- POLS Y103 - Introduction to American Politics Cr. 3.
- POLS Y306 - State Politics in the United States Cr. 3.
- POLS Y307 - Indiana State Government and Politics Cr. 3.
- POLS Y308 - Urban Politics Cr. 3.
- SPEA V170 - Introduction to Public Affairs Cr. 3.
- SPEA V264 - Urban Structure and Policy Cr. 3.

Essential Communication Skills Credits: 3

- COM 21000 - Debating Public Issues Cr. 3.
- ENG W233 - Intermediate Expository Writing Cr. 3.
- POLS Y205 - Elements of Political Analysis Cr. 3.

Promise and Problems of Democracy Credits: 6

(at least one political science course)

- AFRO A210 - The Black Woman in America Cr. 3.
- COM 31600 - Controversy in American Society Cr. 3.

- ENG L232 - Topics in Literature and Culture Cr. 3.
- ENG L250 - American Literature Before 1865 Cr. 3.
- ENG L251 - American Literature Since 1865 Cr. 3.
- ENG L379 - American Ethnic and Minority Literature Cr. 3.
- HIST A306 - Sex Roles and Society in American History Cr. 3.
- HIST A313 - Origins of Modern America Cr. 3.
- HIST A321 - History of American Thought I Cr. 3.
- HIST A322 - History of American Thought II Cr. 3.
- HIST A345 - American Diplomatic History I Cr. 3.
- HIST A349 - Afro-American History Cr. 3.
- PHIL 24000 - Social and Political Philosophy Cr. 3.
- POLS Y105 - Introduction to Political Theory Cr. 3.
- POLS Y381 - Classical Political Thought Cr. 3.
- POLS Y382 - History of Political Theory II Cr. 3.
- POLS Y383 - American Political Ideas I Cr. 3.
- POLS Y384 - American Political Ideas II Cr. 3.
- SOC S300 - Race and Ethnic Relations Cr. 3.
- SOC S309 - The Community Cr. 3.

Policy Formation and Analysis and Government Operations Credits: 3

- POLS Y200 - Contemporary Political Topics Cr. 1-6,
  (topic must be approved)
- POLS Y301 - Political Parties and Interest Groups Cr. 3.
- POLS Y303 - Formation of Public Policy in the United States Cr. 3.
- POLS Y312 - Workshop in State and Local Government Cr. 3.
- POLS Y317 - Voting, Elections, and Public Opinion Cr. 3.
- POLS Y378 - Problems in Public Policy Cr. 3.
- POLS Y394 - Public Policy Analysis Cr. 3.
- POLS Y401 - Studies in Political Science Cr. 3.
  (topic must be approved)
- SPEA V365 - Urban Development and Planning Cr. 3.
- SPEA V372 - Government Finance and Budgets Cr. 3.

Capstone Course Credits: 3

- POLS Y398 - Internship in Urban Institutions Cr. 1-6.
- POLS Y482 - Practicum Cr. 1-6.

Computer Networking Certificate

Program: Certificate
Department of Computer and Electrical Engineering Technology & Information
Systems and Technology
College of Engineering, Technology, and Computer Science

The student learning outcomes for the certificate are as follows:

Students earning the certificate will have

- The fundamental knowledge, skills, and techniques necessary to understand and relate scientific principles to applications using current computer networking software and equipment.
- The knowledge and ability to continue learning the principles and applications of future network operating systems and devices.

This certificate program in computer networking provides the theoretical and practical knowledge necessary to enable you to work with computer operating systems, data communication and network equipment, networking protocols, network system administration, local area networks, wide area networks, and network security.

The CEIT department also offers the Bachelor and Associate of Science with a major in electrical engineering technology, a Bachelor of Science with a major in computer engineering technology (CPET) and an Associate and Bachelor of Science with a major in information systems. In addition to the degrees, the department offers a minor in electronics, and minor in information systems and certificate programs in advanced microprocessors, computer-controlled systems, and electronic communications.

To earn the certificate in computer networking, you must fulfill all course prerequisites, and successfully complete the following courses with a grade of C or better in each course. This certificate is not available to any student with a major in CPET (B.S.).

Program Requirements

- CPET 18100 - Computer Operating Systems Basics Cr. 3.
- CPET 28100 - Local Area Networks and Management Cr. 3.
- CPET 36400 - Networking Security Cr. 3.

One of the following Credits: 3

- CS 17000 - C and Data Structures Cr. 3.
- ECET 26400 - C Programming Language Applications Cr. 3.

One of the following Credits: 4

- CPET 35500 - Data Communications and Networking Cr. 4.
- CS 27400 - Data Communications Cr. 3.
  (plus one-hour lab)
- ECET 35500 - Data Communications and Networking Cr. 4.

One of the following Credits: 3

- CPET 38400 - Wide Area Network Design Cr. 3.
- CPET 49300 - Wireless Networking Cr. 3.
- CPET 49500 - Web Engineering and Design Cr. 4.
- CPET 49900 - Computer Engineering Technology Cr. 1-4.
- CS 37400 - Computer Networks Cr. 3.

Computer Networking Project

- CPET 49900 - Computer Engineering Technology Cr. 1-4.

Total Credits: 20

Computer-Controlled Systems Certificate

Program: Certificate
Department of Computer and Electrical Engineering Technology & Information Systems and Technology
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 205 ~ 260-481-6338 ~ www.ceit.ipfw.edu

The student learning outcomes for the certificate are as follows:

- The fundamental knowledge, skills, and techniques necessary to understand and relate scientific principles to applications using current computer controlled devices.
- The knowledge and ability to continue learning the principles and applications of future computer controlled devices.

This certificate program provides theory and experiments on computer-controlled system design and implementation. Several methods of computer control including — programmable logic controllers (PLC) or Labview graphical programming, General Purpose Interface Bus control (GPIB, HPIB, or IEEE 488), and microcontroller-based systems — are studied. Highlights of the course sequence include data acquisition using low- and high-level languages, control-variable measurement using sensors, D/A and A/D conversions, ladder diagrams, design of pneumatic and hydraulic-controlled systems, sampling and reconstruction, and comparison of continuous and discrete time-controlled systems, and open- and closed-loop controlled systems.

The CEIT department also offers the Bachelor and Associate of Science with a major in electrical engineering technology, a Bachelor of Science with a major in computer engineering technology (CPET) and an Associate and Bachelor of Science with a major in information systems. In addition to the degrees, the department offers a minor in electronics, and minor in information systems and certificate programs in advanced microprocessors, electronic communications, and computer networking.

To earn the certificate in computer-controlled systems, you must satisfy the requirements of IPFW (see Part 8), fulfill all course prerequisites, and satisfactorily complete the following courses with a grade of C or better. This certificate is not available to any student with a major in EET (A.S. and/or B.S.).

Program Requirements

- ECET 20500 - Introduction to Microprocessors Cr. 4.
- ECET 30200 - Introduction to Control Systems Cr. 4.

One of the following Credits: 4

- CPET 35500 - Data Communications and Networking Cr. 4.
- ECET 35500 - Data Communications and Networking Cr. 4.
- ECET 37500 - Computer Controlled System Designs Cr. 3-4.

One of the following Credits: 4

- ECET 36100 - Introduction to PLC and Pneumatic Systems Cr. 4.
- ECET 36500 - Electrical Measurements Cr. 4.

Computer-Controlled Systems Project

- CPET 49900 - Computer Engineering Technology Cr. 1-4.

Total Credits: 17

Dental Assisting Certificate

Program: Certificate in Dental Assisting
Department of Dental Education
College of Health and Human Services

Neff Hall Room 150 ~ 260-481-6837 ~ www.ipfw.edu/dental

The Certificate in Dental Assisting Program is accredited by the American Dental Association Commission on Dental Accreditation, 211 E Chicago Ave # 780, Chicago, IL 60611-6983, telephone (312) 440-2500, http://www.ada.org.

The student learning outcomes for the Dental Assisting Certificate are as follows:

- Demonstrate the breadth and depth of knowledge in basic sciences, social sciences, and clinical practice to deliver comprehensive care to patients in the practice of dentistry.

- Demonstrate and incorporate problem-solving skills in critical thinking, interpretation, reasoning, questioning, and decision-making.

- Demonstrate competence in assessing, evaluating, planning, and treating oral conditions and diseases.

- Demonstrate effective written, oral, and multimedia skills to communicate effectively in diverse settings.

- Interpret, evaluate, and synthesize current scientific dental research and apply evidence-based reasoning skills.

- Comprehend and demonstrate current technology in the practice of dentistry, as it is constantly changing.

- Demonstrate the highest levels of ethical behavior, personal integrity, and professional ethics in the practice of dentistry and the patients that are under their care.

- Assume a leadership and collaborative role in the advancement of the dental profession through local, regional, national, and international communities and professional organizations.

- Demonstrate and apply the skills for life-long learning and professional development.

The Dental Assisting Program curriculum includes didactic, laboratory, and clinical courses with at least one semester of prerequisite courses and one year of professional dental assisting courses. Students are designated as pre-dental assisting students prior to admission to the program. The professional curriculum is a structured, full-time program beginning each fall semester. The curriculum prepares students for a career as a dental health professional. A student may choose to specialize in any of the following areas of dentistry: chairside general dentistry, expanded functions dental assisting (restorative) in general or pediatric dentistry, orthodontics, oral surgery, periodontics, assist in dental surgery at area hospitals, endodontics, public health dentistry, dental sales, dental insurance, dental research, business assisting or office management, or clinical supervision. Graduates are eligible to take the national boards to become a Certified Dental Assistant (CDA) and take the state boards to obtain a dental radiology license in the State of Indiana.

Application to the Program

Applicants must make an appointment with a dental assisting advisor to discuss the program and receive current information regarding admission, prerequisite requirements, and possible degree completion options. To make an appointment with your advisor, log onto the dental education website http://www.ipfw.edu/dental click on advisors and follow the instructions to find your academic advisor.

In order to apply to the Dental Assisting Program a student must:

- Complete prerequisite courses or equivalent courses at another accredited college or university by May 18 for entry the fall semester of that year. Prerequisite courses may not be graded on a pass/not-pass option.

- Submit a dental assisting application with two separate dental office observation forms no later than March 1 for entry to the fall semester of that year. Admission to IPFW does not confer admission to this program. To be admitted to the certificate program students must apply separately to IPFW and the dental assisting program. See the Department of Dental Education for the dental assisting application and dental office observation forms.

Because space in the dental assisting program is limited to 24 students per year, admission is competitive.

The number of eligible applicants each year exceeds the number of spaces available.

Class Selection Process

Acceptance into the Dental Assisting Program is based on the following:

- Applicants must have a minimum prerequisite grade-point average (GPA) of 2.5 on a 4.0 scale in the 12 hours of pre-dental assisting curriculum. The GPA is calculated on only the 12 hours of prerequisite courses. Applicants are ranked based on this GPA. A minimum GPA does not guarantee admission. The actual GPA necessary for admission varies with the GPA distribution of the applicant pool.

- All transfer grades will be reviewed and evaluated in the admission process. Remedial or developmental courses (ENG R150, R151, R152, P131, W130, or MA 109) cannot be used to fulfill these prerequisite requirements

- First-priority consideration for program admission will be given to students who have completed all 12 hours of pre-dental assisting curriculum at IPFW or at other Purdue University or Indiana University campuses.

Students who complete some of their prerequisite courses at IPFW, Indiana University, or Purdue University and other colleges/universities will be considered second for entrance into the program. Students who complete all their prerequisite courses at other colleges/universities that are not IPFW, Indiana University, or Purdue University courses will be considered third for entrance into the program.

- Should a tie in applicants' GPAs occur, rank ordering will be based upon the applicants' cumulative GPA.

- Applicants must meet the application and observation forms deadline of March 1.

- Applicants must return the acceptance form by the deadline stated in the acceptance letter.

- Applicants who have not been accepted, but who are qualified, may reapply for admission.

- Applicants must demonstrate meeting the College of Health and Human Services Technical Standards.

- Students must submit evidence that they have completed the following before classes begin fall semester:

  o a recent physical examination (the summer before the program begins)

  o a recent TB testing (the summer before the program begins)

  o received the three Hepatitis B immunizations (before the program begins) and a Hepatitis B titer (blood test)

  o has a current CPR certification at the healthcare-provider level with the American Heart Association or professional level with the American Red Cross.

  o submitted proof of payment for their Purdue Professional Liability Insurance coverage. Purdue professional liability insurance is not valid unless it has been paid.

  o apply to the Indiana State Department of Health for a Radiology Permit. Students will be given the permit application at July orientation.

  o complete a criminal background check. Students will receive online instructions at July orientation.

- Applicants who have served in the military must submit military discharge papers

- Students in the professional dental programs must pass a drug screening test, if requested.

Admission Policies

Reapplying. Students who have not been accepted, but who are qualified, may reapply for admission. Students who decline admission two times will no longer be considered.

Academic Renewal. Students who are returning to IPFW after five years or more are eligible for the Academic Renewal Option. The Academic Renewal Option must be exercised during a student's first semester back at IPFW, regardless of when the student applies for admission to the Dental Assisting Program. The Program's admission committee will recognize IPFW's Academic Renewal Option when reviewing an applicant for admission.

Criteria for Dismissal from the Dental Assisting Program

- A student who is dismissed from the program may appeal the decision to the Department of Dental Education. If the student is dismissed for failure to meet the university's minimum academic standards, application for readmission must follow the procedures established by the university.

- Dismissal from the Dental Assisting Program may result from professional misconduct. Students who have been accepted to the program will receive a program manual at summer orientation that must be read before they start the program.

- The College of Health and Human Services Student Appeals Policy and forms can be found at http://www.ipfw.edu/hhs/resources/appeals.shtml

Special Academic Regulations for Students in the Department of Dental Education

Tattoos and Head and Neck Piercings

The dental profession is extremely conservative. Tattoos and head and neck piercings are not considered acceptable in the health science professions. If students have tattoos, they must be covered by clothing. If they cannot be covered by clothing, students are required to cover tattoos with bandages. All head and neck piercings must be removed, including plugs.

Attendance

Because of the experiential learning process used in all dental assisting courses, attendance is essential and mandatory. Some evening hours are required for additional clinical experiences and professional association meetings.

Prerequisite Courses

- Prerequisite and preferred admission courses must be completed by May 18 for admission into the class that begins each fall.

- A minimum prerequisite GPA of 2.5 and a minimum cumulative GPA of 2.0 is required for all applicants.

- A student may make two graded attempts at a prerequisite course, with the most recent grade calculated in the pre-dental assisting prerequisite GPA. The student's two attempts will include any graded attempt, whether or not eliminated from the student's grade point average by grade replacement. Repeated courses will not be averaged.

- To apply for the Dental Assisting Certificate program, you must complete the following prerequisite courses by May 18 and receive a grade of C- or better.

You must complete the following prerequisite courses: (12 credits)

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
- NUR 10600 - Medical Terminology Cr. 3.
- PSY 12000 - Elementary Psychology Cr. 3.

Preferred Admission Courses

(with a grade of C- or better)

- BIOL 20300 - Human Anatomy and Physiology Cr. 4.

- BIOL 20400 - Human Anatomy and Physiology Cr. 4.
- DAST A122 - Introduction to Dentistry Cr. 1.

Total Credits: 12-21

Professional Program Requirements (34 credits)

After acceptance into the program, you must fulfill the requirements of IPFW (see Part 8) and Dental Education, and satisfactory complete the following courses with a grade of C or better:

- DAST A111 - Oral Pathology, Physiology, and Anatomy Cr. 1-2.
- DAST A112 - Dental and Medical Emergencies and Therapeutics Cr. 2.
- DAST A121 - Microbiology and Asepsis Technique Cr. 1-2.
- DAST A131 - Dental Materials I Cr. 3.
- DAST A132 - Dental Materials II Cr. 3.
- DAST A141 - Preventive Dentistry and Nutrition Cr. 2.
- DAST A171 - Clinical Science I Cr. 4.
- DAST A172 - Clinical Science II Cr. 3-6.
- DAST A182 - Practice Management, Ethics, and Jurisprudence Cr. 2.
- DHYG H214 - Oral Anatomy Cr. 3.
- DHYG H242 - Introduction to Dentistry - Specialties Cr. 1.
- DHYG H303 - Radiology (lecture and lab) Cr. 1-2.
- DHYG H305 - Radiology Clinic I Cr. 1-2.

Total Credits: 46-53

Electronic Communications Certificate

Program: Certificate
Department of Computer and Electrical Engineering Technology & Information Systems and Technology
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 205~ 260-481-6338 ~ www.ceit.ipfw.edu

The student learning outcomes for the certificate are as follows:

- The fundamental knowledge, skills, and techniques necessary to understand and relate scientific principles to applications using current electronic communications devices.
- The knowledge and ability to continue learning the principles and applications of future communications devices .

This certificate program provides theory and experiments for electronic communications topics ranging from low-frequency applications to fiber optics. It includes courses in analog communications (AM and FM), digital communications (satellite communications and digital TV), microwaves (high-frequency communications), and fiber

optics. Computer programs such as SPICE, ACOLADE (digital communications), SYSCAD (analog communications), TOUCHSTONE (RF and microwave systems), and Microwave Office are incorporated into the curriculum.

The CEIT department also offers the Bachelor and Associate of Science with a major in electrical engineering technology, a Bachelor of Science with a major in computer engineering technology (CPET) and an Associate and Bachelor of Science with a major in information systems. In addition to the degrees, the department offers a minor in electronics, and minor in information systems and certificate programs in advanced microprocessors, computer-controlled systems, and computer networking.

To earn the certificate in electronic communications, you must satisfy the requirements of IPFW (see Part 8), fulfill all course prerequisites, and satisfactorily complete the following courses. This certificate is not available to any student with a major in EET (A.S. and/or B.S.).

Program Requirements

- ECET 30300 - Communications I Cr. 4.
- ECET 37700 - Introduction to Fiber Optics Cr. 4.
- ECET 40300 - Communications II Cr. 4.

And one of the following (4 Credit Hours)

- ECET 41400 - Wireless Communications Cr. 4.
- ECET 47300 - Microwaves Cr. 4.

Electronic Communications Project

- ECET 49900 - Electrical Engineering Technology Cr. 1-9.

Total Credits: 17

Ethnic and Cultural Studies Certificate

Program: Certificate in Ethnic and Cultural Studies
College of Arts and Sciences

Liberal Arts Building 154 ~ 260-481-6746 ~ www.ipfw.edu/engl

The student learning outcomes for the degree are as follows:

- The holder of this certificate will be able to demonstrate understanding of the religious and cultural institutions specific to Native American and/or African American society.

This certificate is available to all IPFW students interested in understanding the institutions, histories, and cultures of American ethnic groups.

To earn the certificate, you must (1) complete all requirements for a bachelor's degree, and (2) complete, with the approval of the program's advisory committee, 18 additional credits from the following list with a grade of C or higher in each course. No more than one independent-reading or internship course may be taken from the same department.

Credits in six of the following courses: 18

- EDUC E400 - Education in the Inner City

- EDUC E403 - Education in the Inner City Practicum
- MUS M395 - Contemporary Jazz and Soul Music

- ANTH E320 - Indians of North America Cr. 3.
- ECON E360 - Public Finance: Survey Cr. 3.
- FINA H415 - Art of Pre-Columbian America Cr. 3.
- FOLK F220 - Introduction to American Folklore Cr. 3.
- HIST A349 - Afro-American History Cr. 3.
- HIST T425 - Topics in History Cr. 1-3.
- PHIL 49300 - Interdisciplinary Undergraduate Seminar Cr. 1-3.
- POLS Y398 - Internship in Urban Institutions Cr. 1-6.
- SOC S300 - Race and Ethnic Relations Cr. 3.
- SOC S494 - Field Experience in Sociology Cr. 3.

Total Credits: 18

Gerontology Certificate

Program: Certificate in Gerontology
College of Arts and Sciences

Liberal Arts Building 135 ~ 260-481-5451 ~ www.ipfw.edu/gerontology/

The student learning outcomes for the degree are as follows:

- Students will demonstrate knowledge of gerontology including but not limited to biological, social, and psychological issues that impact on older adults and those who work with and care for them.
- Students will demonstrate knowledge of the basic study of aging in several disciplines, complementary areas such as nutrition and medical ethics, and applications dealing with health and social issues involving older adults.
- Students will demonstrate the ability to apply gerontological knowledge, through a practicum experience in which the student works with, or on behalf of, older adults in a campus, community, or agency setting that serves this population.

A certificate in gerontology is available to all IPFW students earning undergraduate degrees. It is also available as a stand-alone program. The multidisciplinary program provides basic academic courses on aging, as well as applied courses on health and social issues involving older adults. A practicum component involves applied work in a setting serving older individuals.

The Gerontology Certificate is comprised of 18 credits. The required introductory course (3 credits) provides a foundation in biological, psychological, social, and applied aspects of aging. An additional 12 credits are chosen by the student from a variety of disciplinary courses relevant to gerontology. The final 3-credit requirement is a practicum that involves applied work in a setting serving older individuals.

To earn the certificate, you must:

- meet all regular IPFW admission requirements (refer to Part 8 of the undergraduate Bulletin); and
- complete the following 18 credits with a grade of C or better in each course.

To be entered into the program, you must meet with the gerontology program director. The program of study must be approved by the gerontology program director. All prerequisites must be satisfied before enrolling in any of the courses listed below.

Program Requirements

- GERN G231 - Introduction to Gerontology Cr. 3.

Credits from the following Credits: 12

(you may substitute independent or directed study in gerontology or aging in a suitable department as approved by the gerontology program director):

- ANTH E421 - The Anthropology of Aging Cr. 3.
- BIOL 32700 - Biology of Aging Cr. 3.
- CSD 43000 - Speech-Language Disorders in Healthcare Settings Cr. 3.
- FNN 30200 - Nutrition Education Cr. 3.
  Or
- FNN 30300 - Essentials of Nutrition Cr. 3.
- GERN G399 - Independent Study in Gerontology Cr. 3.
- GERN G499 - Topics in Gerontology Cr. 1-6.
- MUS L340 - Music Therapy in Healthcare Settings Cr. 3.
- MUS U410 - Creative Arts, Health, and Wellness Cr. 3.
- NUR 39900 - Special Topics Cr. 1-6.
  Gerontological Nursing
- PHIL 31200 - Medical Ethics Cr. 3.
- PSY 36700 - Adult Development and Aging Cr. 3.
- PSY 37100 - Death and Dying Cr. 3.
- SOC S314 - Social Aspects of Health and Medicine Cr. 3.
- SPEA H411 - Chronic and Long-Term Care Administration Cr. 3.

Practicum in a gerontological setting Credits: 3

Approved by the gerontology program director. The setting must involve, or relate to, individuals 60 years of age or older. You may choose either a practicum or internship course offered by a department, or the gerontology program practicum course, GERN G494, if you are an interdisciplinary student or are pursuing only the Gerontology Certificate. Approved courses are indicated below. Note that some of these courses may be taken only by those majoring in the sponsoring discipline.

- COM 49000 - Internship in Communication Cr. 1-3.
- CSD 54900 - Clinical Practice in Speech/Language Pathology I Cr. 1-8.
- GERN G494 - Gerontology Practicum Cr. 3.
- HSRV 40000 - Internship I Cr. 1-4.
- HSRV 40100 - Internship Seminar I Cr. 1.
- HSRV 45000 - Internship II Cr. 2-4.
- HSRV 45100 - Internship Seminar II Cr. 1.

- HTM 30100 - Hospitality and Tourism Industry Practicum Cr. 1.
- HTM 30200 - Hospitality and Tourism Industry Internship Cr. 1-2.
- MUS L353 - Music Therapy Practicum II Cr. 1.
- MUS L423 - Advanced Music Therapy Practicum Cr. 1-3.
- MUS L424 - Music Therapy Internship Cr. 1-2.
- NUR 49000 - Nursing Practicum Cr. 1-3.
- PHIL 48000 - Practicum in Applied Ethics Cr. 3.
- POLS Y398 - Internship in Urban Institutions Cr. 1-6.
- POLS Y482 - Practicum Cr. 1-6.
- PSY 48000 - Field Experience in Psychology Cr. 3.
- SOC S494 - Field Experience in Sociology Cr. 3.
- SPEA V380 - Internship in Public Affairs Cr. 1-6.

Total Credits: 18

International Studies Certificate

Program: Certificate in International Studies
College of Arts and Sciences

Liberal Arts Building 267 ~ 260-481-6860 or 260-481-6836 ~ www.ipfw.edu/ilcs

The student learning outcomes for the degree are as follows:

- Demonstrate an appreciation of the histories and cultures of other nations and the various means used to promote and maintain normal relations among them.
- Understand the impact of individual decisions on the world and world events on the individual.
- Demonstrate the ability to think critically about major international issues.

A certificate in international studies is available to all IPFW students who are interested in developing greater understanding of the histories and cultures of other nations and in studying the various means used to promote and maintain normal relations among them. You must be at least a sophomore in good standing to apply to this program.

To earn this certificate, you must complete the following credits with a grade of C or higher in each course as part of your bachelor's degree program:

Program Requirements

- INTL I200 - Introduction to International Studies: Emerging Global Visions Cr. 3.

Choose from the following Credits: 3

- BUS D300 - International Business Administration Cr. 3.
- ECON E340 - Introduction to Labor Economics Cr. 3.
- HIST H232 - The World in the 20th Century Cr. 3.
- ILCS I208 - International Cinema Cr. 3.
- ILCS I330 - Cultural Crossroads: Comparative International Cultures Cr. 3.
- MUS Z105 - Traditions in World Music Cr. 3.

- POLS Y109 - Introduction to International Relations Cr. 3.
- POLS Y200 - Contemporary Political Topics Cr. 1-6,
- POLS Y374 - International Organization Cr. 3.
- POLS Y401 - Studies in Political Science Cr. 3.
- SOC S308 - Introduction to Comparative Sociology Cr. 3.

Credits from the following in a non-Western area Credits: 6

- ANTH E310 - Introduction to the Cultures of Africa Cr. 3.
- ANTH E321 - Peoples of Mexico Cr. 3.
- ANTH E330 - Indians of South America Cr. 3.
- ANTH E455 - Anthropology of Religion Cr. 3.
- ANTH E479 - Indian Cultures of Peru Cr. 3.
- ENG L113 - Introduction to African Literature Cr. 3.
- FWAS H201 - Humanities I: The Ancient World Cr. 3.
- HIST D410 - Russian Revolutions and the Soviet Regime Cr. 3.
- HIST D426 - History of Balkans: 1914 to Present Cr. 3.
- HIST E332 - African History from Colonial Rule to Independence Cr. 3.
- HIST F342 - Latin America: Evolution and Revolution Cr. 3.
- HIST F346 - Modern Mexico Cr. 3.
- HIST F432 - 20th Century Latin American Revolutions Cr. 3.
- HIST F447 - U.S.-Latin American Relations Cr. 3.
- HIST H202 - Russian Civilization I-II Cr. 3.
- HIST T335 - Topics in Non-Western History Cr. 3.
- POLS Y107 - Introduction to Comparative Politics Cr. 3.
- POLS Y339 - Middle Eastern Politics Cr. 3.
- POLS Y340 - East European Politics Cr. 3.
- REL 30100 - Islam Cr. 3
- SOC S410 - Advanced Topics in Social Organization Cr. 3.
- SPAN S412 - Spanish America: The Cultural Context Cr. 3.

Additional Credits: 6

(may be chosen from the list below and/or from the list of non-Western courses above)

- ANTH A460 - Topics in Anthropology Cr. 1-3.
- ANTH E402 - Gender in Cross-Cultural Perspective Cr. 3.
- CMLT C340 - Women in World Literature Cr. 3.
- FINA H390 - Topics in Art History Cr. 3.
- FINA H415 - Art of Pre-Columbian America Cr. 3.
- FOLK F111 - Introduction to World Folk Music Cr. 3.
- FOLK F305 - Asian Folklore Cr. 3.
- FREN F464 - Civilisation Francaise II Cr. 3.
- FWAS H202 - Humanities II: Foundations of the Modern Western World Cr. 3.
- GER G362 - Introduction to Contemporary Germany Cr. 3.
- GER G363 - Deutsche Kulturgeschichte Cr. 3.
- HIST A345 - American Diplomatic History I Cr. 3.

- HIST A346 - American Diplomatic History II Cr. 3.
- HIST B361 - Europe in the 20th Century I Cr. 3.
- HIST B378 - History of Germany II Cr. 3.
- HIST H201 - Russian Civilization I-II Cr. 3.
- HIST H202 - Russian Civilization I-II Cr. 3.
- POLS Y335 - Western European Politics Cr. 3.
- POLS Y350 - Politics of the European Union Cr. 3.
- POLS Y367 - International Law Cr. 3.
- POLS Y371 - Workshop in International Topics Cr. 3.
- POLS Y376 - International Political Economy Cr. 3.
- POLS Y401 - Studies in Political Science Cr. 3.
- SPAN S411 - Spain: The Cultural Context Cr. 3.
- WOST W301 - International Perspectives on Women Cr. 3.

Total Credits: 18

Foreign Language Requirement

In addition to the 18 credits stipulated above, students must demonstrate basic proficiency in a language other than English. The proficiency may be demonstrated by placing at the third-semester level or higher on the foreign language placement test, or by completing the first two semesters of a foreign language at the college level. Students who speak a language other than English are exempt from this requirement.

Labor Studies Certificate

Division of Labor Studies
Program Offered: Certificate in Labor Studies

Kettler Hall G28 ~ 260-481-6831 ~ www.labor.iu.edu

The student learning outcomes for the degree are not available for this degree, contact the program office.

To earn the certificate in labor studies, you must fulfill the requirements of IPFW (see Part 8) and successfully complete the following courses:

Program Requirements

- Credits in the Labor Studies Core: 15
- 3 credits in each Required Area of Learning Credits: 9
- Additional credits in one of the Required Areas of Learning Credits: 6

Credits from the Labor Studies Core Credits: 15

Credits from the following: 15

- LSTU L100 - Survey of Unions and Collective Bargaining Cr. 3.

- LSTU L101 - American Labor History Cr. 3.
- LSTU L110 - Introduction to Labor Studies: Labor and Society Cr. 3.
- LSTU L190 - The Labor Studies Degree Cr. 1.
- LSTU L200 - Survey of Employment Law Cr. 3.
- LSTU L201 - Labor Law Cr. 3.
- LSTU L203 - Labor and the Political System Cr. 3.
- LSTU L205 - Contemporary Labor Problems Cr. 3.
- LSTU L210 - Workplace Discrimination and Fair Employment Cr. 3.
- LSTU L220 - Grievance Representation Cr. 3.
- LSTU L230 - Labor and the Economy Cr. 3.
- LSTU L240 - Occupational Health and Safety Cr. 3.
- LSTU L250 - Collective Bargaining Cr. 3.
- LSTU L251 - Collective Bargaining Laboratory Cr. 1-3.
- LSTU L255 - Unions in State and Local Government Cr. 3.
- LSTU L260 - Leadership and Representation Cr. 3.
- LSTU L270 - Union Government and Organization Cr. 3.
- LSTU L280 - Union Organizing Cr. 3.

Required Areas of Learning for Labor Studies

Arts and Humanities

- Afro-American Studies
- Classical Studies
- Communication
- Comparative Literature
- English (except R150 and W130)
- Folklore
- Foreign Language
- History
- Journalism
- Music
- Philosophy
- Theatre
- Visual Arts

Sciences and Mathematics

- Anthropology (B200 and E445 only)
- Astronomy
- Biology
- Chemistry (except 100)
- Computer Science (includes BUS K200, K211, K212, K213, K214, K215, K216)
- Economics (E270 only)
- Entomology
- Forestry and Natural Resources
- Geography (G107 and G304 only)

- Geology
- Horticulture
- Mathematics (except 101, 102, 103, 109, 111, and 113)
- Physics
- Psychology (120, 201, 314, 333, 329, and 416 only)
- Sociology (S351 only)
- SPEA (K300 only)
- Statistics

Social and Behavior Sciences

- Anthropology
- Economics
- Geography
- Linguistics
- Political Science
- Psychology
- Sociology
- SPEA (J101 only)
- WOST (W210 only)

3 credits in each Required Area of Learning Credits: 9

Additional credits in one of the Required Areas of Learning Credits: 6

Total Credits: 30

Native American Studies Certificate

Program: Certificate in Native American Studies
College of Arts and Sciences

Liberal Arts Building 153 ~ 260-481-6160

The student learning outcomes for the degree are as follows:

- The holder of this certificate will have knowledge of the cultures, prehistory, and creative and artistic expression of Native Americans. He or she will be able to apply this knowledge in pursuit of social work or economic development work on behalf of Native American Organizations.

A certificate in Native American studies is available to all IPFW students. The program provides an appreciation of the cultures, prehistory, history, and creative and artistic expression of Native Americans for the benefit of those who may be interested in social work, economic development, and Native American organizations.

To earn the certificate, you must meet all regular IPFW admission requirements (see Part 8) and complete the following courses with a grade of C or higher in each course:

Program Requirements

Credits in ethnography of Native Americans chosen from the following: Credits: 6

- ANTH E320 - Indians of North America Cr. 3.
- ANTH E321 - Peoples of Mexico Cr. 3.
- ANTH E330 - Indians of South America Cr. 3.
- HIST A310 - Survey of American Indians I Cr. 3.
- HIST A311 - Survey of American Indians II Cr. 3.

Credits in prehistory of Native Americans chosen from the following: Credits: 3

- ANTH E335 - Ancient Civilizations of Mesoamerica Cr. 3.
- ANTH P360 - Archaeology of North America Cr. 3.
- ANTH P370 - Ancient Cultures of South America Cr. 3.

Credits in history of Native Americans chosen from the following: Credits: 3

- HIST A310 - Survey of American Indians I Cr. 3.
- HIST A311 - Survey of American Indians II Cr. 3.
- HIST A318 - The American West Cr. 3.
- HIST F341 - Latin America: Conquest and Empire Cr. 3.
- HIST F342 - Latin America: Evolution and Revolution Cr. 3.
- HIST F432 - 20th Century Latin American Revolutions Cr. 3.

Credits in Native American studies chosen from the following: Credits: 3

- ENG L364 - Native American Literature Cr. 3.
- FINA H415 - Art of Pre-Columbian America Cr. 3.
- FOLK F352 - Native American Folklore Cr. 3.

Additional credits from the lists above or in an approved elective Credits: 3

Total Credits: 18

Peace and Conflict Studies Certificate

Program: Certificate in Peace and Conflict Studies
College of Arts and Sciences

Liberal Arts Building 153 ~ 260-481-6019

The student learning outcomes for the degree are as follows:

- Explain sources of conflict as rooted in inequality and injustice, including issues of race, ethnicity, color, gender, sexual orientation, class, age, disabilities, and/or religious affiliation.
- Explain the dynamics of conflict at various social levels, including interpersonal, group, organization. community, society, and/or global.
- Explain varying perspectives on peace and differing paths to achieve it.
- Synthesize a critique of violent techniques of conflict resolution such as war and oppression.
- Demonstrate commitment to social justice and nonviolent conflict resolution.
- Demonstrate skills in employing nonviolent conflict resolution strategies and promoting social change.

A certificate in peace and conflict studies is available to all IPFW students who wish to understand the dynamics of conflict as well as various paths toward peace, from the interpersonal to the global level. To earn this certificate, you must complete the following 15 credits with a grade of C or higher in each course:

Program Requirements

One of the following: Credits: 3

- PACS P200 - Introduction to Peace and Conflict Studies - Humanities Perspectives Cr. 3.
- PACS P201 - Introduction to Peace and Conflict Studies - Social/Behavioral Sciences Perspectives Cr. 3.

Credits in a social and behavioral sciences courses Credits: 3

Chosen from a list available in the School of Arts and Sciences office.

Credits in a humanities course Credits: 3

Chosen from a list available in the School of Arts and Sciences office.

Credits in another course Credits: 3

Chosen from either the humanities course list or the social and behavioral sciences course list.

One of the following senior-project courses: Credits: 3

- PACS P497 - Humanities Readings and Research in Peace and Conflict Studies Cr. 1-3.
- PACS P498 - Social and Behavioral Sciences Readings and Research in Peace and Conflict Studies Cr. 1-3.
- PACS P499 - Social and Behavioral Sciences Internship in Peace and Conflict Studies Cr. 1-3.

Total Credits: 15

Piano Pedagogy Certificate

Program: Certificate in Piano Pedagogy
Department of Music
College of Visual and Performing Arts

The student learning outcomes for the degree are as follows:

- **Performance.** Students will demonstrate the ability to perform competently in public on a principal instrument or voice as a soloist and as a member of a major ensemble.
- **Music Theory.** Students will demonstrate:
  - knowledge of musical form, structures, concepts, and terms
  - skill and fluency in application through analysis
  - ability to compose within basic musical structures
  - perspective regarding historical styles and structures
  - ability to relate the cognitive to aural perception and to aesthetic response
- **Aural Perception.** Students will demonstrate the ability to:
  - read and sing melodic lines with accurate intonation
  - read and perform complex rhythms accurately
  - recognize and notate melodic, rhythmic, and harmonic patterns and progressions
- **Keyboard.** All music majors will be able to use the keyboard as a basic tool and will demonstrate the ability to:
  - perform appropriate technical skills such as scales, arpeggios, etc.
  - play chord progression from Roman numerals
  - improvise
  - play "by ear" and from lead sheets
  - harmonize melodic lines
  - perform repertoire at the intermediate level
  - transpose simple pieces and lead sheets
  - sight read at the late elementary level
  - play from 4-part open score.
- **Technology.** Students will demonstrate a basic overview of how technology serves the field of music as a whole including the following:
  - knowledge of computer hardware
  - ability to use notational software
  - ability to use the Internet as a resource for research.

Program Requirements

If you intend to be a professional piano studio teacher, you may earn the certificate in piano pedagogy by satisfying the requirements of IPFW (see Part 8) and the College of Visual and Performing Arts (see Part 4), completing the following courses, and earning a grade of C or better in each:

- Credits in applied music Credits: 8

- Credits in ensemble course(s) Credits: 2
- MUS E193 - Piano Pedagogy I Cr. 2.
- MUS E194 - Piano Pedagogy II Cr. 2.
- MUS E293 - Piano Pedagogy III Cr. 2.
- MUS E294 - Piano Pedagogy IV Cr. 2.
- MUS M201 - Music Literature I Cr. 2.
- MUS M202 - Music Literature II Cr. 2.
- MUS T113 - Music Theory I Cr. 3.
- MUS T114 - Music Theory II Cr. 3.
- MUS T115 - Sightsinging and Aural Perception I Cr. 1.

- MUS T116 - Sightsinging and Aural Perception II Cr. 1.
- MUS X296 - Applied Music Upper Divisional Jury Examination Cr. 0.
- MUS X299 - Piano Proficiency Examination Cr. 0.

Total Credits: 30

Quality Certificate

Program: Certificate
Department of Manufacturing and Construction Engineering Technology and Interior Design
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 205 ~ 260-481-4127 ~ www.mcet.ipfw.edu

The student learning outcomes for the degree are as follows:

- An appropriate mastery of the knowledge, techniques, skills and modern tools of quality, metrology, SPC, SQC, TQM, ISO standards, and DOE.

This certificate program prepares graduates with skills in techniques related to quality, such as design of experiments, metrology, and statistical process control. The program provides focused study in the techniques of maintaining and improving quality of manufacturing processes.

Credits earned in the certificate program may be applied toward the associate and bachelor's programs in industrial engineering technology.

Program Requirements

To earn the certificate, you must fulfill the requirements of IPFW (see Part 7) and complete the following courses, earning a grade of C or better in those courses that serve as prerequisites:

- IET 10500 - Industrial Management Cr. 3.
- IET 20004 - Techniques of Maintaining Quality Cr. 3.
  Grade of C or better required
- IET 30400 - Advanced Metrology Cr. 3.
- IET 45400 - Statistical Process Control Cr. 3.
- STAT 30100 - Elementary Statistical Methods I Cr. 3.
  Grade of C or better required

One of the following: Credits: 5-6

- MA 15300 - Algebra and Trigonometry I Cr. 3.
  and
- MA 15400 - Algebra and Trigonometry II Cr. 3.
  Grade of C or better required
  or
- MA 15900 - Precalculus Cr. 5.
  Grade of C or better required

Total Credits: 20-21

Risk and Emergency Management Certificate

Program: Certificate in Risk and Emergency Management
Division of Public and Environmental Affairs

Neff Hall 260 ~ 260-481-6351 ~ www.ipfw.edu/spea/

The student learning outcomes for the degree are as follows:

- The certificate in Risk and Emergency Management will inform and enhance the knowledge base and skills level of those who are responsible for managing risks and emergencies.

The certificate in risk and emergency management is recommended for students from any major that, during their careers, may directly or indirectly be involved in managing emergencies and disasters. Students need not be enrolled in a degree program to complete this certificate.

To earn the certificate, students must complete at least 11 credit hours as residency credits at IPFW. A grade point average of 2.0 or higher is required in all course work credited toward the certificate.

Program Requirements

- CS 29200 - Intermediate Topics in Computer Science Cr. 2-3.
  Approved topic: Technology and Emergency Management (SPEA V465, GIS Mapping, may be taken as substitute)
- HSC 49900 - Special Topics in Health Sciences Cr. 2-6.
- SOC S410 - Advanced Topics in Social Organization Cr. 3.
  Approved Topic: The Social Dimension of Disasters (SPEA J370, The Social and Mental Health Dimensions of Disasters, may be taken as a substitute)
- SPEA V275 - Introduction to Emergency Management Cr. 3.
- SPEA V387 - Public Administration and Emergency Management Cr. 3.
- SPEA V389 - Risk and Hazard Mitigation Cr. 3.

And Select One of the Following:

- POLS Y200 - Contemporary Political Topics Cr. 1-6,
- POLS Y401 - Studies in Political Science Cr. 3.

Total Credits: 21

Supervisory Leadership Certificate

Program: Certificate
Division of Organizational Leadership and Supervision
College of Engineering, Technology, and Computer Science

The student learning outcomes for the degree are as follows:

- Students will demonstrate an understanding of contemporary issues and theories in the areas of leadership, human resources systems and team design and facilitation.
- Students will demonstrate an understanding of organizational behavior at the individual, group and organizational levels of analysis using theories derived from several behavioral sciences.
- Students will be able to apply theories to real organizational and leadership problems.
- Students will demonstrate effective oral and written communication skills.

This certificate program helps you prepare for supervisory leadership positions in any industry. The classes can later be applied toward an associate degree and bachelor's degree with a major in organizational leadership and supervision. Interested individuals must apply for the program before completing 9 hours of applicable course work.

The certificate option is available to community members who enter as non-degree seeking students and to students in good academic standing who are enrolled in non-OLS plans of study. OLS-degree-seeking students are not eligible to enter the certificate program.

To earn the certificate, you must fulfill the requirements of IPFW (see Part 8) and the College of Engineering Technology and Computer Science, Division of Organizational Leadership and Supervision (see Part 4), complete the following courses, and earn a grade of C or better in each course:

Program Requirements

- OLS Elective Credits: 3
- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
- OLS 25200 - Human Relations in Organizations Cr. 3.
- OLS 26800 - Elements of Law Cr. 3.
- OLS 27400 - Applied Leadership Cr. 3.
- OLS 37500 - Training Methods Cr. 3.

Total Credits: 21

See the OLS advisor for a list of approved OLS electives.

Teaching English as a New Language Certificate

Program: Certificate in Teaching English as a New Language
Department of English and Linguistics

Liberal Arts Building 145 ~ 260-481-6841 ~ www.ipfw.edu/engl

The undergraduate certificate in Teaching English as a New Language (TENL) prepares students for Teaching English to Speakers of Other Languages (TESOL) in a variety of learning venues world-wide. It is intended primarily for students who, while they work towards a baccalaureate degree ,wish to develop credentials for teaching English as a new or additional language. Other potential audiences include individuals who wish to obtain professional training in teaching English to speakers of other languages for career opportunities overseas.

Our TENL program matches most other such academic programs nationwide. The required courses will familiarize students with the major theoretical perspectives, pedagogies, and resources of English language teaching. The capstone Practicum provides students with real-world experience through teaching English language learners, in classroom settings.

The undergraduate TENL Certificate will be able to any student who has completed the program requirements successfully. It can stand alone as a separate credential or be integrated within the requirements of the B.A. program in English as an option in the English Language Concentration. Some courses may also apply to a degree from the School of Education.

In addition, an add-on English as a New Language (ENL) **licensure endorsement** is available to TENL Certificate students who are licensed teachers, candidates who are already licensed in specific content area(s) at specific grade levels, or prospective teachers who are in the process of obtaining such a license. Please see the special requirements below for the licensure endorsement.

Certificate Requirements

The TENL certificate will require satisfactory completion of eighteen credit hours of course work in the areas of ENL pedagogy and materials preparation, second language acquisition theories, sociolinguistics and cultural issues, English grammar, and practical classroom experiences. No course with a grade below 2.0 will count toward the TENL certificate. Satisfactory completion of LING L103 or equivalent is a prerequisite for all courses at the 300-level and higher.

Courses Required for the Undergraduate Certificate in TENL

(LING L103 or equivalent is a prerequisite for all TENL courses, 300-level or higher.)

Grammar Credits: 3

- ENG G302 - Structure of Modern English (TESOL) Cr. 3.

Practicum Credits: 3

- LING L470 - TENL Practicum Cr. 3.

Sociolinguistics Credits: 3

- LING L360 - Language in Society Cr. 3.

Language Acquisition Credits: 3

- ENG G432 - Second Language Acquisition Cr. 3.

Methods Credits: 6

- LING L321 - Methods and Materials for TESOL I Cr. 3.
- LING L322 - Methods and Materials for TESOL II Cr. 3.

Total Credits: 18

Admission Requirements

The existing requirements for admission as an unassigned or non-degree-seeking student apply to those who wish to earn the certificate as a stand-alone credential. Existing requirements for admission, completion, and residency, and eligibility apply to those who wish to earn the certificate as part of a degree program.

As of Fall, 2009, up to and no more than nine credit hours of required courses taken prior to formal admission to the TENL Program will be accepted as applying to completion of certificate requirements.

Licensure Endorsement

The Department of English and Linguistics, in conjunction with the School of Education (SOE), offers an endorsement in Teaching English as a New Language to licensed teachers, candidates who are already licensed in specific content area(s) at specific grade levels, or prospective teachers who are in the process of obtaining such a license.

Licensure Endorsement Requirements

The licensure endorsement will require satisfactory completion of eighteen credit hours of course work in the areas of ENL pedagogy and materials preparation, second language acquisition theories, sociolinguistics and cultural issues, English grammar and practical classroom experiences.

In addition to regular IPFW admission standards as presented in the IPFW Bulletin, students must meet the School of Education's requirements for admission to the teacher education program and meet the following criteria:

- Success passage of PPST
- Minimum GPA of 2.5
- Completion of LING L103

Students must maintain a minimum overall GPA of 2.5 or better (of 4.0) in the program. No course with a grade below 2.0 will count toward the licensure endorsement. Satisfactory completion of LING L103 or equivalent is a prerequisite for all courses at the 300-level and higher.

After completion of all coursework in the TENL Certificate program, those seeking the licensure endorsement must apply to the state of Indiana to have the endorsement applied to their license. Students will be assisted with applications through the Department of English and Linguistics and the School of Education.

Women's Studies Certificate

Program: Certificate
College of Arts and Sciences

Liberal Arts Building 35F ~ 260-481-6711 ~ www.ipfw.edu/wost

The student learning outcomes for the degree are as follows:

- demonstrate understanding of major categories of feminist critical analysis, such as gender, race and class
- demonstrate the ability to think critically about major issues in feminism

Women's studies is based on the premise that the study of women's experiences, concerns, social roles, and creativity is essential to our knowledge of humankind and society. Feminist scholarship and theory provide the knowledge and analytical tools necessary for a gender-balanced perspective on our world, both past and present. The Women's Studies Program affords you the opportunity to pursue feminist scholarship on women and gender through a variety of interdisciplinary courses.

See College of Arts and Sciences in Part 4 for further information.

The Women's Studies Certificate is designed for students majoring in academic programs outside the College of Arts and Sciences who are interested in a concentration of course work in women's studies. This program is also appropriate for community members who wish to augment or update past academic studies in a field that has relevance for today's more diverse workforce and society. The required 21 credits are allocated as follows and must be completed with a grade of C or higher in each course:

Program Requirements

- One cross-listed course from the student's department, division, or school to be counted in the student's major as well as in the certificate, or any other WOST-prefixed or cross-listed course Credits: 3
- WOST-prefixed or cross-listed course in science or social science Credits: 3
- WOST-prefixed or cross-listed course in visual arts or humanities Credits: 3
- WOST-prefixed or cross-listed course Credits: 3
- WOST W210 - Introduction to Women's Studies Cr. 3.
- WOST W301 - International Perspectives on Women Cr. 3.
- WOST W400 - Topics in Women's Studies Cr. 3.
  (the capstone course)

Total Credits: 21

Concentration

Accounting Area Concentration

Program: B.S.B.
Department of Accounting and Finance
Richard T. Doermer School of Business and Management Sciences

Neff Hall Room 350 ~ 260-481-6471 ~ www.ipfw.edu/bms

The accounting concentration provides you with academic preparation for careers in auditing, corporate accounting and management services, governmental and nonprofit organizations, public accounting, and taxation. In addition, it equips you with a management tool for intelligent analysis, prediction, decision making, and control.

Upon successfully completing the B.S.B. and accounting concentration requirements, you may be eligible to sit for various professional certification examinations. Students interested in sitting for these examinations should check with the Department of Accounting and Finance (Neff 350) for further information.

You are encouraged to inquire about accounting internships through the co-op program that may be available to you.

To earn the accounting area concentration, you must earn a grade of C or better in each of the following courses:

Program Requirements

- BUS A311 - Intermediate Accounting I Cr. 3.
- BUS A317 - Computer-Based Accounting Systems Cr. 3.
- BUS A325 - Cost Accounting Cr. 3.
- BUS A331 - Taxation of Business Entities Cr. 3.

Credits in four of the following Credits: 12

- BUS A312 - Intermediate Accounting II Cr. 3.
- BUS A314 - Financial Statement Analysis Cr. 3.
- BUS A332 - Taxation of Individuals Cr. 3.
- BUS A422 - Advanced Financial Accounting Cr. 3.
- BUS A424 - Auditing Cr. 3.
- BUS A425 - Contemporary Accounting Theory Cr. 3.
- BUS A437 - Advanced Management Accounting Cr. 3.
- BUS A439 - Advanced Auditing Cr. 3.
- BUS L303 - Commercial Law II Cr. 3.

Note

1. The department offers a certificate program in accounting for individuals who have completed a nonaccounting baccalaureate degree. See Accounting under Program Descriptions in the *Bulletin*.
2. The department offers an optional program to accommodate Indiana's new requirement of 150 hours of education to obtain the CPA certificate. You may contact the department chair for further information.

Business Economics and Public Policy Area Concentration

Program: B.S.B.
Department of Economics
Richard T. Doermer School of Business and Management Sciences

Neff Hall Room 340 ~ 260-481-6794 ~ www.ipfw.edu/bms

The business economics concentration explores the economic environments in which businesses must operate, as well as the interrelationships among micro-and macroeconomic conditions, private-sector decision making, and governmental programs. You have opportunities to study economic problems and their alternative solutions. You may also study aspects of employment, inflation, international trade, and other economics subject areas.

If you wish to become a professional economist, you should prepare for graduate study by taking additional courses in mathematics, statistics, computer science, and/or research methods.

To earn the business economics and public policy area concentration, you must earn a grade of C or better in each of the following courses:

Program Requirements

- Credits in an approved 300/400 level economics course Credits: 6
- ECON E406 Senior Seminar in Economics Credits: 3
- ECON E321 - Intermediate Microeconomic Theory Cr. 3.
- ECON E322 - Intermediate Macroeconomic Theory Cr. 3.

Total Credits: 15

English and Communication Media Concentration

Department of English and Linguistics

Liberal Arts Building 145 ~ 260-481-6841 ~ www.ipfw.edu/engl

To earn a BA with a major in English, you must complete the core requirements and credits in one of five area concentrations. Other concentrations include literature, teacher certification, writing, and language

Program Requirements

- Credits in two 300- or 400-level writing courses (ENG W331, W350, W365, W398, W420, W462; JOUR J310) Credits: 6
- Credits in classics, comparative literature, English, film, or folklore Credits: 3
- JOUR J200 - Reporting, Writing and Editing I . Credits: 3

One of the following Credits: 3

- COM 25000 - Mass Communication and Society
- JOUR C200 - Mass Communications
- JOUR J110 - Foundations of Journalism and Mass Communication

Note

In addition, you must complete a minor in one of the following outside fields: business studies, communication studies, journalism, international language and culture studies, professional writing, or fine arts. No more than 6 credits applied to the minor will apply to the major.

English Language Concentration

Department of English and Linguistics

Liberal Arts Building 145 ~ 260-481-6841 ~ www.ipfw.edu/engl

To earn a BA with a major in English, you must complete the core requirements and credits in one of five area concentrations. Other concentrations include literature, teacher certification, writing, and communication media.

Program Requirements

One of the following Credits: 3

- LING L103 - Introduction to the Study of Language
- LING L303 - Introduction to Linguistic Analysis

One of the following Credits: 3

- ENG G301 - History of the English Language
- ENG L304 - Old English Language and Literature

One of the following Credits: 3

- COM 52100 - Theories of Rhetoric
- ENG W310 - Language and the Study of Writing
- ENG W462 - Studies in Rhetoric and Composition
- LING L360 - Language in Society

Credits In Two Additional Courses in Linguistics Credits: 6

- Including AUS 306, the English language, anthropological linguistics (including ANTH L200 and L400), or psycholinguistics (including AUS 181, 182, 309; PSY 426, 526)

Note

The department recommends the study of a second foreign language with a foreign-language minor.

English Literature Concentration

Department of English and Linguistics

Liberal Arts Building 145 ~ 260-481-6841 ~ www.ipfw.edu/engl

To earn a BA with a major in English, you must complete the core requirements and credits in one of five area concentrations. Other concentrations include teacher certification, writing, language, and communication media.

Program Requirements

- Credits in one additional course in American literature. Credits: 3
- Credits in one additional course in British literature before 1700. Credits: 3
- Credits in one additional course in British literature after 1700. Credits: 3
- Credits in two additional courses in classics, comparative literature, English, film, or folklore. Credits: 6

Note

If you plan to work toward advanced degrees (M.A., Ph.D.) in English, the department recommends additional period or major-author courses and study of a second foreign language. If you are a prelaw student, the department recommends upper level writing courses.

English Teacher Certification Concentration

To earn a BA with a major in English, you must complete the core requirements and credits in one of five area concentrations. Other concentrations include literature, writing, language, and communication media.

The student learning outcomes for the degree are as follows:

- Students demonstrate their acquisition of the fundamental skills necessary for the secondary education classroom; knowledge of American and British literary texts; findamental rules oforal and written communication; acquisition pedagogical methodologies necessary for the instruction of literature and language in a secondary education environment.

- Students exhibit the application of their knowledge of literature, language, and communication to the teaching of others.

(21 Credits Plus 32 Professional Education Credits)

To be eligible for teacher certification, you must earn a GPA of 2.00 or higher in each general education area. You should work closely with your advisor to ensure completion of general education requirements. You must also earn a cumulative GPA of 2.50 or higher in your major area and the professional education courses with an overall GPA of 2.5 or higher. Each professional education course must be completed with a grade of C or better.

The School of Education requires that you first complete EDUA F300, EDUC W200/M101, and EDUC K201 before you are permitted to take professional education courses. Prior to your junior year, you must successfully complete the Pre-Professional Skills Test (PPST) before admission to the teacher education program. The PRAXIS II Specialty Area Exam must be completed before or during the student-teaching semester, normally in your senior year.

Program Requirements

- Credits in one additional course in language study. Credits: 3
- Credits in one course in ethnic, minority, or non-Western literature. Credits: 3
- Credits in one course in Western literature other than British or American. Credits: 3
- Credits in one course in mass communication, including journalism and film. Credits: 3
- Credits in one additional course, 300 level or higher, in writing, literature, language study, or mass communication. Credits: 3
- ENG L391 - Literature for Young Adults. Credits: 3
- ENG W400 - Issues in Teaching Writing. Credits: 3

School of Education Requirements

Prior to being admitted to the teacher education program, you must complete the Initial Requirement courses and pass the PPST.

Initial Requirements

- EDUA F300 - Topical Exploration in Education Cr. 1-3.
- EDUC K201 - Schools, Society, and Exceptionality Cr. 1-3.
- EDUC M101 - Laboratory/Field Experience Cr. 0-3.
- EDUC W200 - Using Computers for Education Cr. 1.

Block I

- EDUC H340 - Education and American Culture Cr. 2-3.
- EDUC K206 - Teaching Methods for Students with Special Needs Cr. 1-3.
- EDUC P250 - General Educational Psychology Cr. 1-4.
- EDUC M201 - Laboratory/Field Experience Cr. 0-3.

Block II

- EDUC M447 - Methods of Teaching High School English Cr. 3.
- EDUC M401 - Laboratory/Field Experience Cr.0-3.
- EDUC P253 - Educational Psychology for Secondary Teachers Cr. 1-4.
- EDUC M301 - Laboratory/Field Experience Cr. 0-3.
- EDUC X401 - Critical Reading in the Content Area Cr. 1-3.

Student Teaching

- EDUC M480 - Student Teaching in the Secondary School Cr. 1-16.
  Credits: 12
- EDUC M501 - Lab/Field Experience Cr. 0-3.
  Credits: 0

Middle School Certification (Recommended)

- EDUC M470 - Practicum Cr. 3-8.
  Credits: 4

Note

A certificate or licensure endorsement to teach English as a New Language is also available.

Finance Area Concentration

Program: B.S.B.
Department of Accounting and Finance
Richard T. Doermer School of Business and Management Sciences

Neff Hall Room 350 ~ 260-481-6471 ~ www.ipfw.edu/bms

The finance concentration is composed of courses that have been selected to familiarize you with the theory, instruments, and institutions of finance, and with a financial approach for structuring and analyzing management decisions. The study of finance provides a basis for careers in corporate financial management, as well as executive positions in commercial banking, savings and credit institutions, and the investment field.

To earn the finance area concentration, you must earn a grade of C or better in each of the following courses:

Program Requirements

- BUS F303 - Intermediate Investments Cr. 3.
- BUS F310 - Financial Statement Analysis - Finance Perspective Cr. 3.
- BUS F345 - Money/Banking/Capital Markets Cr. 3.
- ECON E321 - Intermediate Microeconomic Theory Cr. 3.

Credits in four of the following: 12

- BUS A325 - Cost Accounting Cr. 3.
- BUS F420 - Equity and Fixed Income Investments Cr. 3.
- BUS F446 - Management of Commercial Banks and Other Financial Institutions Cr. 3.
- BUS F494 - International Finance Cr. 3.
- ECON E322 - Intermediate Macroeconomic Theory Cr. 3.

Total Credits: 24

Management and Administration Area Concentration

Program: B.S.
Department of Management and Marketing
Richard T. Doermer School of Business and Management Sciences

Neff Hall Room 340 ~ 260-481-6470 ~ www.ipfw.edu/bms

The management and administration concentration provides you with an opportunity to study a broad scope of business and economics subjects, as well as concepts and theories of managing complex business operations. The courses stress goal setting, planning, controlling, and problem solving in the context of major business firms in domestic and international environments.

To earn the management and administration area concentration, you must earn a grade of C or better in each of the following courses:

Program Requirements

- Credits in two additional 400-level management courses (Courses that start with D, K, W, P, or Z) The one exception is M426 Sales Management, which will also count as a management elective. Credits: 6
- One semester of a foreign language of your choice. Credits: 3
- ILCS I350 International Communications. Credits 3
- BUS D300 - International Business Administration Cr. 3.
- BUS K327 - Deterministic Models in Operations Research Cr. 3.
- BUS Z440 - Personnel: Human Resources Management Cr. 3.

Total Credits: 21

Marketing Area Concentration

Program: B.S.
Department of Management and Marketing
Richard T. Doermer School of Business and Management Sciences

Neff Hall Room 340 ~ 260-481-6470 ~ www.ipfw.edu/bms

The marketing area concentration is concerned with the movement of goods and services from the producer to the customer. It encompasses such topics as consumer behavior, product development, pricing, channels of distribution, promotion, marketing research, and effective management of corporate marketing operations.

To earn this area concentration, you must earn a grade of C or better in each of the following courses:

Program Requirements

- Credits in two additional 400-level marketing courses Credits: 6
- (BUS courses starting with M4_ _ meet this requirement, along with the K490 ECommerce course and D490 Special Studies in International Business.)
- One semester of a foreign language. Credits 3
- ILCS I350 International Communication. Credits 3
- BUS D300 - International Business Administration Cr. 3.
- BUS M303 - Marketing Research Cr. 3.
- BUS M450 - Marketing Strategy and Policy Cr. 3.
- ILCS I350 - International Communication Cr. 3.

Total Credits: 21

Writing Concentration

Program: Concentration
Department of English and Linguistics

Liberal Arts Building 145 ~ 260-481-6841 ~ www.ipfw.edu/engl

To earn a BA with a major in English, you must complete the core requirements and credits in one of five area concentrations. Other concentrations include: literature, teacher certification, language and communication media.

Program Requirements

- Credits in three W-prefixed courses in writing (ENG W203 or courses above the 200 level). Credits: 9
- Credits in one course in writing above the 300 level. Credits: 3
- Credits in one additional course in classics, comparative literature, English, film, or folklore. Credits: 3

Note

If you are interested in writing professionally, the department recommends a minor in business studies or journalism.

Dual Degree

Electrical Engineering (B.S.E.E.) and Physics (B.S.) Dual Degree

Programs: B.S.E.E. & Physics (B.S.)
Department of Engineering & Department of Physics
College of Engineering, Technology, and Computer Science & College of Arts and Sciences

Engineering, Technology, and Computer Science Building 327 ~ 260-481-6362 ~ www.engr.ipfw.edu
Kettler Hall 126B ~ 260-481-6306 ~ www.ipfw.edu/physics/

You may choose to complete a dual degree in Electrical Engineering and Physics by completing all of the requirements in both the BSEE and the Physics (B.S.) programs. With overlapping coursework, the dual degree requires 156 hours.

Endorsement

License in English as a New Language

Program: License in English as a New Language
Department of English and Linguistics

Liberal Arts Building 145 ~ 260-481-6841 ~ www.ipfw.edu/engl

The Department of English and Linguistics, in conjunction with the School of Education (SOE), offers an add-on license in teaching English as a New Language (ENL) to licensed teachers, candidates who are already licensed in specific content area(s) at specific grade levels, or prospective teachers who are in the process of obtaining such a license.

Our program features a structured and balanced curriculum, providing education graduates with solid theoretical foundation for second language teaching and learning as well as sound pedagogical training in developing approaches,

skills and techniques to teach or work with English language learners in P-12 school settings. The curriculum prepares students as credentialed, knowledgeable professionals in teaching English as a new language.

License Requirements

The ENL license will require satisfactory completion of eighteen credit hours of course work in the areas of ENL pedagogy and materials preparation, second language acquisition theories, sociolinguistics and cultural issues, English grammar, and practical classroom experiences.

Courses Required for the Undergraduate License in ENL

(LING L103 or equivalent is a prerequisite for all TENL courses, 300-level or higher.)

Grammar

- ENG G302 - Structure of Modern English (TESOL) Cr. 3.

Methods

- LING L321 - Methods and Materials for TESOL I Cr. 3.
- LING L322 - Methods and Materials for TESOL II Cr. 3.

Language Acquisition

- ENG G432 - Second Language Acquisition Cr. 3.

Sociollinguistics

- LING L360 - Language in Society Cr. 3.

Practicum

- LING L470 - TENL Practicum Cr. 3.

Program Restrictions

Students must maintain a minimum overall GPA of 2.5 or better (of 4.0) in the program. No course with a grade below 2.0 will count toward the ENL License. Satisfactory completion of LING L103 or equivalent is a prerequisite for all courses at the 300-level and higher.

Admission Requirements

All students will be required to meet regular IPFW admission standards as presented in the IPFW Bulletin. In addition, students must meet the School of Education's requirements for admission to the teacher education program and meet the following criteria:

- Successful passage of PPST
- A minimum GPA of 2.5
- Completion of LING L103

As of Fall, 2009, up to and no more than nine credit hours of required courses taken prior to formal admission to the TENL Program will be accepted as applying to completion of the License in ENL.

Middle School/Junior High Endorsement

Program: Endorsement
Department of Educational Studies
School of Education

Neff Hall 250 ~ 260-481-6441 ~ www.ipfw.edu/educ

In addition to the major in elementary education or secondary education students may earn a middle school/junior high endorsement in language arts, mathematics, earth and space science, and/or historical perspectives. Each endorsement requires 24 credits of content courses and a 4-credit middle school practicum. If completing more than one endorsement, you only need one practicum for all endorsements.

- **EDUC M470 Practicum: Middle School: Credits: 4**

Language Arts (24 credits)

- British literature elective (300 level or higher) Credits: 3
- American literature elective (300 level or higher) Credits: 3

One of the following: Credits: 3

- ENG L101 - Western World Masterpieces I: Ancient to Renaissance Cr. 3.
- ENG L102 - Western World Masterpieces II: Renaissance to Modern Cr. 3.
  Multicultural Literature Cr. 3.

One of the following: Credits: 3

- ENG L202 - Literary Interpretation Cr. 3.
- ENG W233 - Intermediate Expository Writing Cr. 3.

One of the following: Credits: 3

- ENG G205 - Introduction to the English Language Cr. 3.
- ENG G206 - Introduction to the Study of Grammar Cr. 3.
- LING L103 - Introduction to the Study of Language Cr. 3.

One of the following: Credits: 3

- COM 25000 - Mass Communication and Society Cr. 3.

- JOUR C200 - Mass Communications Cr. 3.

One of the following: Credits: 3

- ENG L390 - Children's Literature Cr. 3.
- ENG L391 - Literature for Young Adults Cr. 3.

One of the following: Credits: 3

- EDUC E340 - Methods of Teaching Reading I Cr. 2-3.
  Credits: 3
- EDUC X401 - Critical Reading in the Content Area Cr. 1-3.
  Credits: 3

Earth and Space Science (24 credits)

- Science electives Credits: 0–2
- AST A100 - The Solar System Cr. 3.
- BIOL 10000 - Introduction to the Biological World Cr. 3.
- BIOL 10001 - Introduction to the Biological World Laboratory Cr. 1.
- CHM 11100 - General Chemistry Cr. 3.
- GEOL G100 - General Geology Cr. 3-5.
  Credits: 3

One of the following Credits: 3

- BIOL 34900 - Environmental Science Cr. 3.
- GEOG G315 - Environmental Conservation Cr. 3.
- GEOL G300 - Environmental and Urban Geology Cr. 3.

One of the following Credits: 3-5

- PHYS 13100 - Concepts in Physics I Cr. 3.
- PHYS 15200 - Mechanics Cr. 5.

One of the following Credits: 3

- EDUC Q200 - Introduction to Scientific Inquiry Cr. 1-3.
  Credits: 3
- EDUC Q400 - Man and Environment: Instructional Methods Cr. 3.

Mathematics (24 credits)

- Computer science elective Credits: 3
- Mathematics, computer science, or statistics electives Credits: 2–3

- MA 10100 - Mathematics for Elementary Teachers I Cr. 3.
- MA 10200 - Mathematics for Elementary Teachers II Cr. 3.
- MA 10300 - Mathematics for Elementary Teachers III Cr. 3.
- MA 15300 - Algebra and Trigonometry I Cr. 3.
  (or waiver)
- STAT 12500 - Communicating with Statistics Cr. 3.

One of the following Credits: 3-4

- MA 16500 - Analytic Geometry and Calculus I Cr. 4.
- MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.

Historical Perspectives (24 credits)

- American history Credits: 3
- Sociology Credits: 3
- Political science Credits: 3
- Social studies electives Credits: 6
- PSY 12000 - Elementary Psychology Cr. 3.

One of the following Credits: 3

- ECON E200 - Fundamentals of Economics Cr. 3.
- ECON E201 - Introduction to Microeconomics Cr. 3.

One of the following Credits: 3

- FWAS H201 - Humanities I: The Ancient World Cr. 3.
- FWAS H202 - Humanities II: Foundations of the Modern Western World Cr. 3.
- HIST H232 - The World in the 20th Century Cr. 3.

Honors

Honors Program Certificate

Program: Certificate
All Baccalaureate Degrees

Walb Union G25 ~ 260-481-6924 ~ www.ipfw.edu/honors

The student learning outcomes for the certificate are as follows:

Students are expected to demonstrate the following skills:

- Critical thinking
- Analysis and synthesis

- Problem solving
- Clear oral and written expression
- Ability to conduct research
- Independent thinking

The Honors Program is an undergraduate program that seeks to create learning opportunities and an environment of intellectual excitement and discovery through enriched courses of study and activities within a learning community. Through involvement with the Honors Program, honors students enter into a partnership of learning that extends well beyond the classroom to incorporate an interdisciplinary approach with career-oriented skills. Rich course opportunities and tailored projects create an individual curriculum for each student.

The program is open to students of all majors and undergraduate degrees. Traditional incoming students become eligible for the Honors Program by meeting any one of the following criteria: placing in the top 10 percent of their high school's graduating class, scoring a 650 SAT in any one category, or attaining a 1800 SAT (or 27 ACT) composite score. Any student may participate in the Honors Program after 12 or more credit hours with GPA-related grades at IPFW and a 3.3 GPA or higher. Transfer students eligible for the program must have at least 12 credit hours of GPA-related grades (A, B, C, D, F, IF) with an equivalent of at least a 3.5 GPA on a 4.0 scale from the transferring institution.

To earn the certificate along with the Honors Pin, you must fulfill the requirements of IPFW (see Part 8) and the Honors Program, which are as follows:

- 18 credits of honors coursework through honors courses or H-options
- An honors project (including presentation and paper).
- Honors courses that represent at least two disciplines.
- At least three honors credits at the 300-level or above.
- Both cumulative and honors GPA of 3.5 or higher.
- Fulfill the requirements for a baccalaureate degree at IPFW.

In addition, students are highly encouraged to earn at least three credits of non-project honors coursework through honors courses. Because the Honors Program is an undergraduate program, all of the requirements of the program must be completed while the student is pursuing an undergraduate degree. Upon completion of such a degree, further completion of program requirements will not take effect unless work toward a different undergraduate baccalaureate degree is undertaken.

Minor

Anthropology Minor

Program: Minor
Department of Anthropology
College of Arts and Sciences

Kettler Hall G11A ~ 260-481-6272 ~ *www.ipfw.edu/anthropology*

Courses in anthropology provide an understanding of the nature of cultures and help you assess various explanations of human behavior; they also assist in the development of analytical and critical abilities. The curriculum is structured to include studies in the history and theory of anthropology, in four anthropological fields (ethnology, archaeology, bioanthropology, and linguistics), in at least two different world ethnographic areas, and in topical specializations. The program helps you prepare for graduate study, for teaching, and for careers in which the understanding of various cultures is an asset.

Although a minor is not required for the B.A. with a major in anthropology, an outside concentration is recommended. Fifteen credits in history, political science, psychology, or sociology support the concentration.

If you are pursuing a major other than anthropology, you may earn a minor in anthropology by completing the following credits with a grade of C or better in each course and earning at least 8 credits as resident credit at IPFW:

Program Requirements

Two of the following: Credits: 6

- Additional anthropology credits Credits: 9
- ANTH B200 - Bioanthropology Cr. 3.
- ANTH E105 - Culture and Society Cr. 3.
- ANTH L200 - Language and Culture Cr. 3.
- ANTH P200 - Introduction to Prehistoric Archaeology Cr. 3.

Total Credits: 15

Applied Ethics Minor

Program: Minor
Department of Philosophy
College of Arts and Sciences

Liberal Arts Building 23 ~ 260-481-6366 ~ www.ipfw.edu/phil

A minor in applied ethics; including human rights issues, complements a major in such fields as anthropology, biology, business, communication, English, health sciences, history, psychology, or sociology. The minor also enhances your preparation for graduate study in any of these fields or in law, medicine, natural science, philosophy, religion and theology, or social work.

To earn a minor in applied ethics, you must complete the following credits with a grade of C or better in each course; at least 8 of the credits must be earned as resident credit at IPFW:

Program Requirements

- Credits in an applied ethics course (e.g., PHIL 312, 326, 327, or 328) Credits: 3
- Credits in another PHIL course at the 300 level or above Credits: 3
- PHIL 11100 - Ethics Cr. 3.
- PHIL 12000 - Critical Thinking Cr. 3.
  or
- PHIL 15000 - Principles of Logic Cr. 3.
- PHIL 48000 - Practicum in Applied Ethics Cr. 3.

Total Credits: 15

Art History Minor

Program: Minor
Department of Visual Arts/Fine Arts Program
College of Visual and Performing Arts

Visual Arts 117 ~ 260-481-6705 ~ www.ipfw.edu/vpa

A student may earn a minor in Art History by completing 18 credit hours of FINA Art History courses with a grade of C or better in each class. The 6 classes must include H111 and H112. Below is a listing of courses offered.

Resident Requirements Completion of as least 9 resident credits at the 200 level or above is required for the minor.

Program Requirements

- Credits in art history selected from the following Credits: 18
- FINA H111 - Ancient and Medieval Art Cr. 3.
- FINA H112 - Renaissance Through Modern Art Cr. 3.
- FINA H311 - Art of the Ancient World Cr. 3.
- FINA H312 - Art of the Medieval World Cr. 3.
- FINA H313 - Art of the Renaissance and Baroque Cr. 3.
- FINA H314 - Art of the Modern World Cr. 3.
- FINA H411 - 19th Century Art I Cr. 3.
- FINA H412 - 19th Century Art II Cr. 3.
- FINA H413 - 20th-Century Art: 1900-1924 Cr. 3.
- FINA H414 - 20th Century Art: 1925-Present Cr. 3.
- FINA H415 - Art of Pre-Columbian America Cr. 3.
- FINA H495 - Readings and Research in Art History Cr. 1-4

Total Credits: 18

Biology Minor

Program: Minor
Department of Biology
College of Arts and Sciences

Science Building 330 ~ 260-481-6305 ~ www.ipfw.edu/bio

If you are pursuing a major other than biology, you may earn a minor in biology by completing each of the following courses with a grade of C or better and earning at least 10 credits as resident credit at IPFW:

Program Requirements

- BIOL 11700 - Principles of Ecology and Evolution Cr. 4.
- BIOL 11900 - Principles of Structure and Function Cr. 4.

- BIOL 21700 - Intermediate Ecology Cr. 3.
- BIOL 21800 - Genetics and Molecular Biology Cr. 4.
- BIOL 21900 - Principles of Functional Biology Cr. 4.

Total Credits: 19

Business Studies Minor

Program: Minor
SBMS Undergraduate Student Affairs Center
Richard T. Doermer School of Business and Management Sciences

Neff Hall 366 ~ 260-481-6472 ~ www.ipfw.edu/bms

The minor in business studies provides a fundamental background in the principles of business and economics. The minor is available to any IPFW student majoring in a nonbusiness bachelor's degree program. Your eligibility for this program is governed by the policies of the division/department in which you are enrolled. Please see your academic advisor for additional information.

To earn this minor, you must be regularly admitted to an IPFW bachelor's degree program that permits this option. All courses that compose this option have specific prerequisites. You must meet the prerequisites for each course and earn a grade of C or better in each course marked with an *. Some of these courses may be applicable to other requirements of your degree program. See your academic advisor for details.

Program Requirements

- BUS A201 - Principles of Financial Accounting Cr. 3.
  *
- BUS A202 - Principles of Managerial Accounting Cr. 3.
  *
- BUS K211 - Spreadsheets for Business Cr. 1.
  *
- BUS K212 - Introduction to Database Management Cr. 1.
- BUS K213 - Internet Literacy for Business Cr. 1.
- BUS L200 - Elements of Business Law Cr. 3.
  *
- BUS W204 - Social, Legal, and Ethical Implications of Business Decisions Cr. 3.
- ECON E201 - Introduction to Microeconomics Cr. 3.
  *
- ECON E202 - Introduction to Macroeconomics Cr. 3.
  *
- ECON E270 - Introduction to Statistical Theory in Economics and Business I Cr. 3.
  *
- MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.
  (or MA 165 or 223)

Two of the following: Credits 6

Upon completion of all above courses and after attaining junior class standing, you may select a maximum of two from the following:

- BUS D300 - International Business Administration Cr. 3.
  *
- BUS F301 - Financial Management Cr. 3.
  *
- BUS M301 - Marketing Management in a Competitive Environment Cr. 3.
  *
- BUS P301 - Managing Operations in a Competitive Environment Cr. 3.
  *
- BUS Z302 - Management of Organizations and People Cr. 3
  *

Note

As a major in another bachelor's degree program, you are not eligible to enroll in any additional business or economics courses. No more than 25 percent of a nonbusiness student's baccalaureate curriculum may be in subjects available in the Richard T. Doermer School of Business and Management Sciences.

Total Credits: 31

Chemistry Minor

Program: Minor
Department of Chemistry
School of Arts and Sciences

Science Building 496 ~ 260-481-6289 ~ www.ipfw.edu/chem

If you are pursuing a major other than chemistry, you may earn a minor in chemistry by completing the following courses with a grade of C or better and earning at least 13–15 credits as resident credits at IPFW:

Program Requirements

- CHM 11500 - General Chemistry Cr. 4.
- CHM 11600 - General Chemistry Cr. 4.
- CHM 21800 - Introduction to Inorganic Chemistry Cr. 3.

Credits in one of the following Credits: 3–4

- CHM 37100 - Physical Chemistry Cr. 3.
- CHM 38300 - Physical Chemistry Cr. 4.

Credits in one of the following courses in analytical chemistry Credits: 4

- CHM 22400 - Introductory Quantitative Analysis Cr. 4.
- CHM 32100 - Analytical Chemistry I Cr. 4.

One of the following sequences Credits: 8–10

- CHM 25400 - Organic Chemistry Laboratory Cr. 1.
- CHM 25500 - Organic Chemistry Cr. 3.
- CHM 25600 - Organic Chemistry Cr. 3.
- CHM 25800 - Organic Chemistry Laboratory Cr. 1.
  or
- CHM 26100 - Organic Chemistry Cr. 3.
- CHM 26200 - Organic Chemistry Cr. 3.
- CHM 26500 - Organic Chemistry Laboratory Cr. 2.
- CHM 26600 - Organic Chemistry Laboratory Cr. 2.

Total Credits: 26-29

Communication Studies Minor

Program: Minor
Department of Communication
College of Arts and Sciences

Neff Hall 230 ~ 260-481-6825 ~ www.ipfw.edu/comm/

If you are pursuing a major other than interpersonal and organizational communication or media and public communication, you may earn this minor by completing the following requirements with a 2.0 or better in each course and earning at least 9 credits as resident credit at IPFW:

Program Requirements

- Credits in communication courses approved for communication B.A. majors Credits: 6
- (We strongly suggest students consult with the Department of Communication advisor to select these courses)
- COM 21200 - Approaches to the Study of Interpersonal Communication Cr. 3.
- COM 25000 - Mass Communication and Society Cr. 3.
- COM 30000 - Introduction to Communication Research Methods Cr. 3.
- COM 31800 - Principles of Persuasion Cr. 3.

Total Credits: 18

Computer Science Minor

Program: Minor
Department of Computer Science
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 125 ~ 260-481-6803 ~ www.cs.ipfw.edu

If you are pursuing a major other than computer science, you may earn a minor in computer science by completing the following courses. Only computer science courses in which you have earned a grade of C or better can be applied to the degree or used to satisfy prerequisites.

Required Courses (14 Credits)

- CS 16000 - Introduction to Computer Science I Cr. 4.
- CS 16100 - Introduction to Computer Science II Cr. 4.
- CS 26000 - Data Structures Cr. 3.
- MA 17500 - Introductory Discrete Mathematics Cr. 3.

CS 200+ Electives (6 Credits)

Any CS 200 level, CS 300 level or CS 400 level courses except CS 306.

Total Credits: 20

Creative Writing Minor

Program: Minor
Department of English and Linguistics
College of Arts and Sciences

Liberal Arts Building 145 ~ 260-481-6841 ~ www.ipfw.edu/engl

This program is available to all IPFW students except those pursuing the communication media, teacher-certification, or writing concentration with a major in English.

You may earn the minor by completing the following 15 credits, including at least 8 credits earned as resident credit at IPFW, with a grade of C or better in each course.

Program Requirements

- One additional writing course, 300 level or above Credits: 3
- One additional course in classics, comparative literature, English, (except ENG W130, W131, W135, W233), film, folklore, or linguistics; or COM 436 or THTR 376 Credits: 3
- ENG W203 - Creative Writing Cr. 3.

One of the following: Credits: 3

- ENG W301 - Writing Fiction Cr. 3.
- ENG W303 - Writing Poetry Cr. 3.

One of the following Credits: 3

- ENG W401 - Advanced Fiction Writing Cr. 3.
- ENG W403 - Advanced Poetry Writing Cr. 3.

Total Credits: 15

Criminal Justice Minor

Program: Minor
Division of Public and Environmental Affairs

Neff Hall 260 ~ 260-481-6351 ~ www.ipfw.edu/spea/

The minor in criminal justice offers you the opportunity to become more knowledgeable in the field of criminal justice and its policy implications. It is available to students who are enrolled in baccalaureate programs other than the Bachelor of Science in Public Affairs degree program with a major in Criminal Justice. The minor can enhance the career opportunities for liberal arts and other majors.

Program Requirements

Each minor requires 15 credit hours of specified courses with a 2.00 grade-point average, and none of the courses may be taken by correspondence through the Division of Continuing Studies. SPEA majors may only double-count 6 of the required 15 credit hours in other SPEA major or minor requirements. Students may earn more than one minor from SPEA, but each minor must have at least 9 credit hours that are not satisfying other major or minor requirements.

- SPEA J101 - The American Criminal Justice System Cr. 3.
  C– or better required.

One of the following: Credits: 3

- SPEA J201 - Theoretical Foundations of Criminal Justice Policies Cr. 3.
- SPEA J301 - Substantive Criminal Law Cr. 3.

An additional 9 credits of Criminal Justice electives (SPEA Jxxx) at the 300-level or above.

Total Credits: 15

Dance Minor

Program: Minor
Department of Theatre
College of Visual and Performing Arts

Williams Theatre 128 ~ 260-481-6551 ~ www.ipfw.edu/vpa/thtr

You may earn a theatre dance minor by completing the following courses and earning a grade of C or better in each course.

Program Requirements

- DANC 10100 - Modern Dance I Cr. 2.
- DANC 10200 - Ballet I Cr. 2.
- DANC 10300 - Jazz Dance I Cr. 2.
- DANC 12100 - Tap Dance I Cr. 2.
- DANC 13400 - The Study of Movement in Human Society Cr. 3.
- DANC 13600 - Teaching Dance: Theories and Methods Cr. 3.
- DANC 20100 - Modern Dance II Cr. 2.
- DANC 20200 - Ballet II Cr. 2.
- DANC 20300 - Jazz Dance II Cr. 2.
- DANC 22100 - Tap Dance II Cr. 2.
- DANC 24000 - Fundamentals of Dance Composition Cr. 3.

One of following Credits: 3

- DANC 25100 - Dance History Cr. 3.
- THTR 35500 - American Musical Theatre Cr. 3.

Total Credits: 24

Economics Minor

Program: Minor
College of Arts and Sciences

Neff Hall 366B ~ 260-481-6483 ~ www.ipfw.edu/econ

Economics is the study of the rational allocation of scarce resources. The major seeks to develop those critical skills that help you understand and solve problems in a wide variety of circumstances. These analytical abilities are valuable in the business world and many professional disciplines such as law and social work.

This program is offered in close cooperation with the Department of Economics in the Richard T. Doermer School of Business and Management Sciences, which offers all economics courses required for the major.

If you are pursuing a major other than economics, you may earn a minor in economics by completing the following credits with a grade of C or better in each course and earning at least 8 credits as resident credit at IPFW:

Program Requirements

- Credits in two additional ECON courses at the 300–400 level: 6
- ECON E201 - Introduction to Microeconomics Cr. 3.
- ECON E202 - Introduction to Macroeconomics Cr. 3.

One of following Credits: 3

- ECON E321 - Intermediate Microeconomic Theory Cr. 3.
- ECON E322 - Intermediate Macroeconomic Theory Cr. 3.

Note

Programs can be designed to provide concentrations in several areas. A theory and quantitative concentration of 18 credits, including at least 9 resident credits, can be provided along with suitable study in mathematics to prepare students for graduate programs in economics and related disciplines.

Total Credits: 15

Electronics Minor

Program: Minor
Department of Computer and Electrical Engineering Technology and Information Systems
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 205 ~ 260-481-6338 ~ www.ceit.ipfw.edu

The minor in electronics provides a fundamental technical background in analog and digital electronics to enable you to understand, analyze, and troubleshoot basic circuits. It also enables you to specialize and gain an in-depth knowledge of a particular area of electronics.

The ECET department also offers the Bachelor and Associate of Science with a major in electrical engineering technology, a Bachelor of Science with a major in computer engineering technology (CPET) and an Associate and Bachelor of Science with a major in information systems. In addition to the degrees, the department offers a minor in information systems and certificate programs in computer-controlled systems, electronic communications, power electronics systems, and computer networking.

To earn a minor in electronics, you must complete the following courses and, unless you have already completed them, the 6 credits of mathematics prerequisites:

Fundamental Courses (16 credits)

- ECET 10200 - Electrical Circuits I Cr. 4.
- ECET 11100 - Digital Circuits Cr. 4.
- ECET 15200 - Electrical Circuits II Cr. 4.

- ECET 20400 - Analog Electronics II Cr. 4.

Advanced Course (One of the following: 4 credits)

- ECET 30200 - Introduction to Control Systems Cr. 4.
- ECET 30300 - Communications I Cr. 4.
- ECET 35500 - Data Communications and Networking Cr. 4.
- ECET 36100 - Introduction to PLC and Pneumatic Systems Cr. 4.

Total Credits: 20

English Minor

Program: Minor
Department of English and Linguistics

Liberal Arts Building 145 ~ 260-481-6841 ~ www.ipfw.edu/engl

This program is available to all IPFW students who are not pursuing a major in English. You may earn a minor in English by completing the following 15 credits, including at least 8 credits earned as resident credit at IPFW, with a grade of C or better in each course:

Program Requirements

- Credits in American literature Credits: 3
- Credits in British literature before 1700 Credits: 3
- Credits in British literature after 1700 Credits: 3
- Additional credits in ENG and LING courses, W100–W299 excepted Credits: 6

Total Credits: 15

Film and Media Studies Minor

Program: Minor
College of Arts and Sciences

Liberal Arts Building 153 ~ 260-481-6160

The minor in film and media studies provides a coherent introduction to the basics of film/media literacy. The program is designed to develop a critical understanding of the historical, theoretical, aesthetic, cultural and institutional contexts of film, television, and other electronic and digital mass media.

Film/media aesthetics Credits: 3

One of following:

- COM 24800 - Introduction to Media Criticism and Analysis Cr. 3.
- FILM K101 - Introduction to Film Cr. 3.

Film/media history Credits: 3

One of following:

- COM 25000 - Mass Communication and Society Cr. 3.
- FILM K201 - Survey of Film History Cr. 3.

Upper-level requirements Credits: 6

Two of the following:

- COM 33800 - Documentary or Experimental Film and Video Cr. 3.
- FILM K302 - Genre Study in Film Cr. 3.
- FILM K390 - The Film and Society Cr. 3.

Free elective Credits: 3

One of following:

- COM 42200 - Women, Men, and Media Cr. 3.
- COM 43600 - Script Writing Cr. 3.
- COM 49100 - Special Topics in Communication Cr. 1-3.
  (with appropriate topic)
- FREN F460 - French Fiction in Film Cr. 3
- POLS Y200 - Contemporary Political Topics Cr. 1-6,
  (with appropriate topic)

Note

Additional courses may be approved and will be announced in the program brochure and in the Schedule of Classes each semester. At least 8 credits must be completed as resident credit at IPFW.

Total Credits: 15

Fine Arts Minor

Program: Minor
Department of Visual Arts/Fine Arts Program
College of Visual and Performing Arts

Visual Arts Building 117 ~ 260-481-6705 ~ www.ipfw.edu/vpa/finearts

A Fine Arts Minor is designed for IPFW students outside of Department of Fine Arts programs. IPFW students can earn a minor in art by completing 15 credit hours within the Department of Fine Arts while maintaining a 2.0 GPA within the classes.

Resident Requirements Completion of as least six resident credits at the 200 level or above is required for the minor.

Required Courses Credits: 6

- FINA P121 - Drawing Fundamentals I-II Cr. 3.
- FINA P151 - Design Fundamentals I-II Cr. 3.

Additional Fine Arts Credits: 9

Select three additional classes within the fine arts program.

- At least two classes must be at the 200 level or above.
- Two FINA art history classes can be used as part of the additional classes

Total Credits: 15

Folklore Minor

Program: Minor
Department of English and Linguistics
College of Arts and Sciences

Liberal Arts Building 145 ~ 260-481-6841~ www.ipfw.edu/engl

The minor in folklore familiarizes you with the international body of folklore as well as the theories, techniques, and history of folkloristics. The folklore minor is particularly appropriate for degree programs in anthropology, education, English, history, sociology, and other humanities and social sciences.

This program is available to all IPFW students except those pursuing the teacher-certification concentration with a major in English.

To earn a minor in folklore, you must complete the following 15 credits, including at least 8 credits earned as resident credit at IPFW, with a grade of C or better in each course:

Program Requirements

- Credits in additional courses, including at least two courses above the 200 level in folklore or in folklore-related courses in anthropology, classics, or other disciplines approved by the department Credits: 9

One of following Credits: 3

- FOLK F101 - Introduction to Folklore Cr. 3.
- FOLK F220 - Introduction to American Folklore Cr. 3.

One of following Credits: 3

- ANTH E462 - Anthropological Folklore Cr. 3.
- FOLK F251 - Folklore Methods and Theories Cr. 3.

Total Credits: 15

French Minor

Program: Minor
Department of International Language and Culture Studies
College of Arts and Sciences

Liberal Arts Building 267 ~ 260-481-6836 ~ www.ipfw.edu/ilcs

If you are pursuing a major other than French, you may earn a minor in French by completing the following 14 credits, with a grade of C or better in each course.

Study Abroad Both majors and nonmajors are encouraged to study abroad. For those who wish to study French, Indiana University administers and cosponsors an academic-year program in Aix-en-Provence; semester programs in Paris, Rennes, and Rouen; and summer programs in Paris and Quebec.

Program Requirements

- Credits in 300-level French language courses Credits: 6
- Credits in 300-level French literature courses Credits: 6
- FREN F213 - Second-Year French Composition Cr. 3.
  (normally taken concurrently with F203–F204)

Total Credits: 14

French Teaching Minor

Program: Teaching Minor
Department of International Language and Culture Studies
College of Arts and Sciences

Liberal Arts Building 267 ~ 260-481-6836 ~ www.ipfw.edu/ilcs

If you are already licensed or qualified to be licensed in another area, you may earn a French teaching minor by completing the following 34 credits with a grade of C or better in each course.

Program Requirements

- Credits in 300-level French language courses Credits: 3
- Credits in 300-level French literature courses Credits: 3
- Credits in 400-level French and francophone civilization courses (F463 or F464) Credits: 3
- FREN F111 - Elementary French I Cr. 4.
- FREN F112 - Elementary French II Cr. 4.
- FREN F203 - Second-Year French I Cr. 3.
- FREN F204 - Second-Year French II Cr. 3.
- FREN F213 - Second-Year French Composition Cr. 3.
  (normally taken concurrently with F203–F204)
- FREN F317 - French Language Skills I Cr. 3.
- FREN F318 - French Language Skills II Cr. 3.
- FREN F325 - Oral French for Teachers Cr. 3-8.
  3 Credits

Total Credits: 34

Geology Minor

Program: Minor
Department of Geosciences
College of Arts and Sciences

Science Building 230 ~ 260-481-6249 ~ www.geosci.ipfw.edu

If you are pursuing a major other than geology, you may earn a minor in geology by completing the following courses with a grade of C or better, with at least 11 resident credits taken at IPFW.

Program Requirements

Two courses from GEOL/GEOG, 200 level or higher Credits: 6

- GEOL G104 - Earth Science: Evolution of the Earth Cr. 3.
- GEOL G211 - Introduction to Paleobiology Cr. 3.

One of following Credits: 3-4

- GEOL G100/L100 General Geology with Lab Cr. 4.
- GEOL G103 - Earth Science: Materials and Processes Cr. 3.

One of following Credits: 3

- GEOG G237 - Cartography and Geographic Information Cr. 3.
- GEOL G323 - Structural Geology Cr. 3.

One of following Credits: 3

- GEOL G300 - Environmental and Urban Geology Cr. 3.
- GEOL G334 - Principles of Sedimentology and Stratigraphy Cr. 3.

Total Credits: 21-22

German Minor

Program: Minor
Department of International Language and Culture Studies
College of Arts and Sciences

Liberal Arts Building 267 ~ 260-481-6836 ~ www.ipfw.edu/ilcs/

If you are pursuing a major other than German, you may earn a German minor by completing the following 15 credits, with a grade of C or better in each course:

Study Abroad both majors and nonmajors are encouraged to study abroad. For those who wish to study German, Indiana University administers and cosponsors an academic-year program in Freiburg, a semester program in Freiburg, and a summer program in Graz (Austria).

Program Requirements

- Additional German language skills credits at the 300 level Credits: 3
- Additional German credits at the 300–400 level Credits: 9

One of following Credits: 3

- GER G362 - Introduction to Contemporary Germany Cr. 3.
- GER G363 - Deutsche Kulturgeschichte Cr. 3.

Total Credits: 15

German Teaching Minor

Program: Teaching Minor
Department of International Language and Culture Studies
College of Arts and Sciences

Liberal Arts Building 267 ~ 260-481-6836 ~ www.ipfw.edu/ilcs/

If you are already licensed or qualified to be licensed in another area, you may earn a German teaching minor by completing the following 32 credits with a grade of C or better in each course.

Program Requirements

- Additional German language skills credits at the 300 level Credits: 3
- Additional German credits at the 300-400 level Credits: 9
- GER G111 - Elementary German I Cr. 4.
- GER G112 - Elementary German II Cr. 4.
- GER G203 - Second-Year German I Cr. 3.
- GER G204 - Second-Year German II Cr. 3.
- GER G325 - German for Teachers Cr. 3.

One of following Credits: 3

- GER G362 - Introduction to Contemporary Germany Cr. 3.
- GER G363 - Deutsche Kulturgeschichte Cr. 3.

Total Credits: 32

History Minor

Program: Minor
Department of History
College of Arts and Sciences

Liberal Arts Building 209 ~ 260-481-6686 ~ www.ipfw.edu/hist

If you are pursuing a major other than history, you may earn a minor in history by completing the following credits with a grade of C- or better in each course and with an overall GPA of 2.0 or higher, including at least 9 credits as resident credit at IPFW:

Program Requirements

- Credits in 100-level courses (H105, H106, H113, H114, or equivalent honors courses) Credits: 9
- Credits above the 100 level, including courses in at least two of the following three areas: United States, Western Europe, and Other World areas Credits: 9

Total Credits: 18

Note

Included in the above credits must be at least one course dealing primarily with the period before 1800 (HIST A301, A302, A310, B351, B352, C386, C388, C390, C393, E331, F341, H113, H201, H222, and occasional special

offerings). HIST H232 may not be used to fulfill the Western European or Other World area requirements, but may be used for additional credits toward the major or minor.

Human Services Minor

Program: Minor
Department of Human Services
College of Health and Human Services

Neff Hall 130 ~ 260-481-6424 ~ www.ipfw.edu/hs/

The minor in human services is available to students enrolled in baccalaureate programs other than the Bachelor of Science in human services. The minor can enhance the career opportunities for liberal arts, general studies, and other majors. The minor requires 15 credit hours of specified courses, which must be completed with a grade of C or better. Students should contact the Department of Human Services at 260-481-6424 for more information and to be assigned to an academic advisor.

Program Requirements

- HSRV 10000 - Introduction to Human Services Cr. 3.
- HSRV 31500 - Introduction to Theories and Therapies Cr. 3.
- HSRV 32000 - Case Methods Cr. 3.

One of the following: Credits: 3

- HSRV 32500 - Current Trends in Psychosocial Rehabilitation Cr. 3.
- HSRV 35000 - Drugs and Society Cr. 3.
- HSRV 39900 - Special Topics Cr. 1-3.
- HSRV 42000 - Substance Abuse Prevention Cr. 3.

One of the following: Credits: 3

- HSRV 10300 - Helping Relationship Techniques Cr. 3.
- HSRV 10500 - Basic Interviewing Skills Cr. 3.
- HSRV 21100 - The Dynamics of Group Behavior Cr. 3.

Informatics Minor

Program: Minor
Department of Computer Science
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 125 ~ 260-481-6803 ~ www.cs.ipfw.edu

The minor in Informatics complements a major in such fields as Nursing, Biology, Business, management, government/Public Administration and Education. To earn a minor in Informatics, you should have completed ETCS 106 (or equivalent) with a grade of C or better and the following must be completed:

Program Requirements

Informatics Core Courses

- IM 10500 - Introduction to Informatics Cr. 1.
- IM 21000 - Problem Solving and Programming for Informatics Cr. 4.
- IM 22000 - Database Applications for Informatics Cr. 3.
- IM 23000 - Informatics Infrastructure Cr. 3.
- IM 33000 - Information Retrieval and Presentation Cr. 3.

Informatics Elective selected from the following (one course, Cr. 3):

- IM 31000 - Problem Solving and Programming for Informatics Cr. 1.
- IM 37000 - Network Design and Management for Informatics Cr. 3.
- IM 38000 - HCI Design for Informatics Cr. 3.
  (Other approved Informatics courses from a related discipline)

Informatics Capstone Course, Cr. 3

- IM 45000 - Informatics Design Project Cr. 3.
  (Other approved Informatics capstone course from a related discipline)

Information Systems Minor

Program: Minor
Department of Computer and Electrical Engineering Technology & Information Systems and Technology
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 205 ~ 260-481-6338 ~ www.ceit.ipfw.edu

The Minor in Information systems provides a fundamental background for students interested in developing software for business/organization systems and applications.

To earn a minor in information systems, you must complete the following courses:

Major Requirements Credits: 18

Contact the Department of Computer and Electrical Engineering Technology & Information Systems and Technology for more information.

- IST 14000 - Introduction to Visual Basic Applications Cr. 3.

- IST 16000 - Foundation and Role of Information Systems Cr. 3.
- IST 26000 - Enterprise Architecture Cr. 3.
- IST 27000 - Data and Information Management Cr. 3.
- IST 34000 - Business Process Management Cr. 3.
- IST 37000 - Systems Analysis and Design Cr. 3.

Total Credits: 18

Journalism Minor

Program: Minor
College of Arts and Sciences

Neff Hall 343 ~ 260-481-6685 ~ www.ipfw.edu/jour/

The IPFW Journalism Program offers two minors. A journalism minor provides underpinning for those interested in various media; the public relations minor described later in this section is more particularly defined and will appeal to those wishing to concentrate in corporate communications or advertising/public relations.

These minors are especially appropriate for media and public communication or English communication media majors. Those with a desire to write or report in some content area should consider a major in the area itself. Reporters need a content area such as political science or history; basic science students will discover that science writing is an especially valuable and challenging career goal.

Program Requirements

To earn the journalism minor, you must complete each course with a grade of C or better and must complete at least 8 credits as resident credit at IPFW.

One of following Credits: 3

- COM 25000 - Mass Communication and Society Cr. 3.
- JOUR C200 - Mass Communications Cr. 3.
- JOUR J110 - Foundations of Journalism and Mass Communication Cr. 3.

Two of the following Credits: 6

- JOUR J200 - Reporting, Writing and Editing I Cr. 3.
- JOUR J20I - Reporting, Writing, and Editing II Cr. 3.
- JOUR J315 - Feature Writing Cr. 3.

Two of the following Credits: 6

- COM 33400 - Journalism for the Electronic Mass Media Cr. 3.
- JOUR J210 - Visual Communication Cr. 3.
- JOUR J310 - Editorial Practices Cr. 3.

- JOUR J390 - Corporate Publications Cr. 1-3.

One of following Credits: 3

- COM 43200 - Practicum in Television Cr. 2.
- COM 49000 - Internship in Communication Cr. 1-3.
- ENG W398 - Internship in Writing Cr. 1-3.
- JOUR J492 - Media Internship Cr. 1-3.

Total Credits: 18

Labor Studies Minor

Division of Labor Studies
Program Offered: Minor

Kettler Hall G28 ~ 260-481-6831 ~ www.labor.iu.edu

If you are pursuing a major other than labor studies, you may earn a minor in labor studies by completing 15 credits, including 6 credits from the Labor Studies Core and 9 additional credits in labor studies. The additional 9 credits may come from other core courses, more-advanced courses, topics courses, internships, and directed labor studies.

Linguistics Minor

Program: Minor
Department of English and Linguistics
College of Arts and Sciences

Liberal Arts Building 145 ~ 260-481-6841 ~ www.ipfw.edu/engl

Linguistics is the study of the characteristics of language. Accordingly, linguistics courses are valuable preparation for the study of such subjects as anthropology, communication, education, English, international languages, psychology, sociology, and speech and audiology.

This program is available to all IPFW students except those pursuing the language, teacher-certification, or communication media concentration with a major in English.

To earn a minor in linguistics, you must complete the following 15 credits, including at least 8 credits earned as resident credit at IPFW, with a grade of C or better in each course:

Program Requirements

- Any LING course numbered 300 or above except LING L303 Credits: 3

One of the following Credits: 3

- ANTH L200 - Language and Culture Cr. 3.
- ANTH L400 - Seminar in the Ethnography of Communication Cr. 3.
- LING L360 - Language in Society Cr. 3.

One of the following Credits: 3

- LING L103 - Introduction to the Study of Language Cr. 3.
- LING L303 - Introduction to Linguistic Analysis Cr. 3.

One of the following Credits: 3

Or, one course in the structure or linguistics of an international language.

- CSD 18100 - First Course in American Sign Language Cr. 3.
- ENG G205 - Introduction to the English Language Cr. 3.
- ENG G206 - Introduction to the Study of Grammar Cr. 3.
- LING L490 - Linguistic Structures Cr. 3.

One of the following Credits: 3

Or one course above the 200 level in linguistics or a related discipline approved by the department.

- CSD 30600 - Introduction to Phonetics Cr. 3.
- CSD 30900 - Language Development Cr. 3.
- PHIL 45000 - Symbolic Logic Cr. 3.
- PSY 42600 - Language Development Cr. 3.
- PSY 52600 - Psycholinguistics Cr. 3.

Total Credits: 15

Math and Physics Minor - Computer Engineering

Program: B.S.Cmp.E.
Department of Engineering
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 327 ~ 260-481-6362 ~ www.engr.ipfw.edu

Computer engineering students have enough math courses to qualify for a minor in mathematics. No additional math courses are needed. To be officially awarded a minor in math, a form must be filled and approved by the math department prior to graduation.

Computer engineering students that take PHYS 322 and PHYS 342, which are accepted as technical electives in the computer engineering program, will earn a minor in physics. PHYS 342 can also be taken as an Area VI General Education course. To be officially awarded a minor in physics, a form must be filled and approved by the physics department prior to graduation.

Math and Physics Minor - Electrical Engineering

Program: B.S.E.E.
Department of Engineering
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 327 ~ 260-481-6362 ~ www.engr.ipfw.edu

Electrical engineering students have enough math courses to qualify for a minor in mathematics. No additional math courses are needed. To be officially awarded a minor in math, a form must be filled and approved by the math department prior to graduation.

Electrical engineering students that take PHYS 322 and PHYS 342, which are accepted as technical electives in the electrical engineering program, will earn a minor in physics. PHYS 342 can also be taken as an Area VI General Education course. To be officially awarded a minor in physics, a form must be filled and approved by the physics department prior to graduation.

Math and Physics Minor - Mechanical Engineering

Program: B.S.M.E.
Department of Engineering
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 327 ~ 260-481-6362 ~ www.engr.ipfw.edu

Mechanical engineering students that take ME 373 Numerical Methods in Engineering, have enough math courses to qualify for a minor in mathematics. No additional math courses are needed. To be officially awarded a minor in math, a form must be filled and approved by the math department prior to graduation.

Mechanical engineering students that take PHYS 322 and PHYS 342, which are accepted as technical electives in the mechanical engineering program, will earn a minor in physics. PHYS 342 can also be taken as an Area VI General Education course. To be officially awarded a minor in physics, a form must be filled and approved by the physics department prior to graduation.

Math Minor - Civil Engineering

Program: B.S.C.E.
Department of Engineering
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 327 ~ 260-481-6362 ~ www.engr.ipfw.edu

Civil engineering students have enough math courses to qualify for a minor in mathematics. No additional math courses are needed. To be officially awarded a minor in math, a form must be filled and approved by the math department prior to graduation.

Mathematics Minor

Program Offered: Minor
Department of Mathematical Sciences
College of Arts and Sciences

Kettler Hall 200 ~ 260-481-6821 ~ www.ipfw.edu/math

You may earn a minor in mathematics by completing at least six courses in mathematics and statistics. Your selection of courses should be appropriate for your major, and your program for a minor must be approved by the department's program review committee. Two calculus courses must be included. College algebra or trigonometry courses are excluded; one computer science course may be substituted for a mathematics or statistics course. You must have a grade of C or better in all courses included in your minor, and at least half of the credits must be earned as resident credit at IPFW.

Sample Programs for a Minor in Mathematics

Business and Management Majors

Computer Programming:

- CS 11400 - Introduction to Visual Basic Cr. 3.
  or
- CS 16000 - Introduction to Computer Science I Cr. 4.

Calculus:

- MA 16500 - Analytic Geometry and Calculus I Cr. 4.
  and
- MA 16600 - Analytic Geometry and Calculus II Cr. 4.
  or
- MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.
  and
- MA 23000 - Calculus for the Managerial, Social, and Biological Sciences II Cr. 3.

Finite or Discrete Math:

- MA 17500 - Introductory Discrete Mathematics Cr. 3.
  or
- MA 21300 - Finite Mathematics I Cr. 3.
  or
- MA 27500 - Intermediate Discrete Math Cr. 3.

Modeling:

- MA 31400 - Introduction to Mathematical Modeling Cr. 3.

Statistics:

- ECON E270 - Introduction to Statistical Theory in Economics and Business I Cr. 3.
  or
- STAT 51100 - Statistical Methods Cr. 3.

Computer Science Majors

Numerical Analysis:

- CS 38400 - Numerical Analysis Cr. 3.

Calculus:

- MA 16500 - Analytic Geometry and Calculus I Cr. 4.
  and
- MA 16600 - Analytic Geometry and Calculus II Cr. 4.

Discrete Mathematics:

- MA 17500 - Introductory Discrete Mathematics Cr. 3.
  or
- MA 27500 - Intermediate Discrete Math Cr. 3.

Linear Algebra:

- MA 35100 - Elementary Linear Algebra Cr. 3.

Statistics:

- STAT 51100 - Statistical Methods Cr. 3.
  or
- STAT 51600 - Basic Probability and Applications Cr. 3.

Liberal Arts Majors

Computer Programming:

- CS 11400 - Introduction to Visual Basic Cr. 3.
  or
- CS 16000 - Introduction to Computer Science I Cr. 4.

Calculus:

- MA 16500 - Analytic Geometry and Calculus I Cr. 4.
  and
- MA 16600 - Analytic Geometry and Calculus II Cr. 4.
  or

- MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.
  and
- MA 23000 - Calculus for the Managerial, Social, and Biological Sciences II Cr. 3.

Finite Mathematics:

- MA 21300 - Finite Mathematics I Cr. 3.

Modeling:

- MA 31400 - Introduction to Mathematical Modeling Cr. 3.

Statistics:

- STAT 12500 - Communicating with Statistics Cr. 3.

Life Sciences Majors

Computer Programming:

- CS 11400 - Introduction to Visual Basic Cr. 3.
  or
- CS 16000 - Introduction to Computer Science I Cr. 4.

Calculus:

- MA 16500 - Analytic Geometry and Calculus I Cr. 4.
  and
- MA 16600 - Analytic Geometry and Calculus II Cr. 4.
  or
- MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.
  and
- MA 23000 - Calculus for the Managerial, Social, and Biological Sciences II Cr. 3.

Finite Mathematics:

- MA 21300 - Finite Mathematics I Cr. 3.

Modeling:

- MA 31400 - Introduction to Mathematical Modeling Cr. 3.

Statistics:

- STAT 24000 - Statistical Methods for Biology Cr. 3.
- STAT 34000 - Elementary Statistical Methods II Cr. 3.

Physical Sciences and Engineering Majors

Calculus:

- MA 16500 - Analytic Geometry and Calculus I Cr. 4.
  and
- MA 16600 - Analytic Geometry and Calculus II Cr. 4.
  and
- MA 26100 - Multivariate Calculus Cr. 4.

Differential Equations:

- MA 36300 - Differential Equations Cr. 3.

Advanced Calculus:

- MA 51000 - Vector Calculus Cr. 3.

Complex Analysis or Linear Algebra:

- MA 35100 - Elementary Linear Algebra Cr. 3.
  or
- MA 51100 - Linear Algebra with Applications Cr. 3.
  or
- MA 52500 - Introduction to Complex Analysis Cr. 3.

Technology Majors

Computer Programming:

- CS 11400 - Introduction to Visual Basic Cr. 3.
  or
- CS 16000 - Introduction to Computer Science I Cr. 4.

Calculus:

- MA 16500 - Analytic Geometry and Calculus I Cr. 4.
  and
- MA 16600 - Analytic Geometry and Calculus II Cr. 4.
  or
- MA 22700 - Calculus for Technology I Cr. 4.
  and
- MA 22800 - Calculus for Technology II Cr. 3.

Discrete or Finite Math:

- MA 17500 - Introductory Discrete Mathematics Cr. 3.
  or
- MA 21300 - Finite Mathematics I Cr. 3.
  or
- MA 27500 - Intermediate Discrete Math Cr. 3.

Mathematics Elective:

- MA 32100 - Applied Differential Equations Cr. 3.
  or
- MA 35100 - Elementary Linear Algebra Cr. 3.

Statistics:

- STAT 30100 - Elementary Statistical Methods I Cr. 3.
  or
- STAT 51100 - Statistical Methods Cr. 3.

Media Production Minor

Program: Minor
Department of Communication
College of Arts and Sciences

Neff Hall 230 ~ 260-481-6825 ~ www.ipfw.edu/comm/

This program is available to all IPFW students, including students with communication majors. To earn a minor in media production, you must complete at least 18 credits with a 2.0 or better in each course. You must also complete any prerequisites for the courses that are chosen and complete at least 9 credits as resident credit at IPFW.

Program Requirements

- COM 24800 - Introduction to Media Criticism and Analysis Cr. 3.

Credits from among the following: Credits: 15

- COM 33100 - Audio Production Cr. 3.
- COM 33200 - Television Studio Production Cr. 3.
- COM 33300 - Film Production Cr. 3.
- COM 33400 - Journalism for the Electronic Mass Media Cr. 3.
- COM 33700 - Advanced Digital Video Production Cr. 3.
- COM 33800 - Documentary or Experimental Film and Video Cr. 3.
- COM 43100 - Practicum in Radio Cr. 2.
  (2 credits, may be repeated once)
- COM 43200 - Practicum in Television Cr. 2.
  (2 credits, may be repeated once)

- COM 43600 - Script Writing Cr. 3.
- COM 49000 - Internship in Communication Cr. 1-3.
- COM 53700 - Educational/Instructional Television Cr. 3.
- COM 57600 - Health Communication Cr. 3.
- FILM K101 - Introduction to Film Cr. 3.
- JOUR J200 - Reporting, Writing and Editing I Cr. 3.
- JOUR J210 - Visual Communication Cr. 3.
- PHYS 10500 - Sound and Music Cr. 3.
- PHYS 12500 - Light and Color Cr. 3.
- THTR 15800 - Stagecraft Cr. 3.
- VCD N274 - Digital Imaging Cr. 3.
- VCD P151 - Design Fundamentals I Cr. 3.
- VCD P152 - Design Fundamentals II Cr. 3.

Total Credits: 18

Music Minor

Program: Minor
Department of Music
College of Visual and Performing Arts

Rhinehart Music Center (RC) 144 ~ 260-481-6714 ~ www.ipfw.edu/vpa/music

A minor in music is designed for students who wish to enhance an interest in music while majoring in another area. To earn this minor, you must complete the courses listed below and earn a grade of C or better in each. Six credits must be at the 200 level or higher.

Program Requirements

24 credit hours selected from the following:

Music Theory Credits: 8

- MUS T113 - Music Theory I Cr. 3.
- MUS T114 - Music Theory II Cr. 3.
- MUS T115 - Sightsinging and Aural Perception I Cr. 1.
- MUS T116 - Sightsinging and Aural Perception II Cr. 1.

Music History and Literature Credits: 4

- MUS M201 - Music Literature I Cr. 2.
- MUS M202 - Music Literature II Cr. 2.

Applied Study and/or Ensemble Credits: 6-12

Placement in ensembles and/or applied studios by audition only.

- Applied Study (with jury examination)   Credits: 4-8
- Ensembles   Credits: 2-4

Electives Credits: 0-6

Students may work with an advisor in the Department of Music to select electives to fulfill the remaining credit hours.

Concert Attendance Credits: 0

- MUS X095 - Performance Class Cr. 0.
  (2-4 Semesters)

Organizational Leadership and Supervision Minor

Program: Minor
Division of Organizational Leadership and Supervision

Neff Hall 288 ~ 260-481-6420 ~ www.ipfw.edu/ols

If you are pursuing a major other than organizational leadership and supervision, you may earn a minor in organizational leadership and supervision by completing the following courses with a grade of C or better in each course and earning at least 9 credits as resident credit at IPFW:

Program Requirements

- OLS 25200 - Human Relations in Organizations Cr. 3.
- OLS 26800 - Elements of Law Cr. 3.
- OLS 27400 - Applied Leadership Cr. 3.
- OLS 37500 - Training Methods Cr. 3.
- OLS 37600 - Human Resources Issues Cr. 3.

Additional Credits in OLS: 3

Total Credits: 18

See the OLS advisor for a list of approved OLS electives.

Philosophy Minor

Program: Minor
Department of Philosophy
College of Arts and Sciences

If you are pursuing a major other than philosophy, you may earn a minor in philosophy by completing the following credits with a grade of C or better in each course and earning at least 8 credits as resident credit at IPFW. Substitutions for these courses may be made with the approval of the department.

Program Requirements

- PHIL 30300 - History of Modern Philosophy Cr. 3.

One of the following: Credits: 3

- PHIL 11000 - Introduction to Philosophy Cr. 3.
- PHIL 11100 - Ethics Cr. 3.

One of the following: Credits: 3

- PHIL 12000 - Critical Thinking Cr. 3.
- PHIL 15000 - Principles of Logic Cr. 3.

One of the following: Credits: 3

- PHIL 30100 - History of Ancient Philosophy Cr. 3.
- PHIL 30200 - History of Medieval Philosophy Cr. 3.
- PHIL 30400 - 19th Century Philosophy Cr. 3.

Credits in a philosophy elective at the 400 level or above Credits: 3

 (PHIL 493 and PHIL 590 count toward the minor only with the approval of the department.)

Total Credits: 15

Physics Minor

Program: Minor
Department of Physics
College of Arts and Sciences

If you are pursuing a major other than physics, you may earn a minor in physics by completing the following credits with a grade of C or better in each course and earning at least 9 credits as resident credit at IPFW:

Program Requirements

- PHYS 15200 - Mechanics Cr. 5.
- PHYS 25100 - Heat, Electricity, and Optics Cr. 5.

Credits in two of the following: Credits: 6-8

- PHYS 31000 - Intermediate Mechanics Cr. 4.
- PHYS 32200 - Optics Cr. 3.
- PHYS 33000 - Intermediate Electricity and Magnetism Cr. 3.
- PHYS 33100 - Electricity and Magnetism II Cr. 3.
- PHYS 34200 - Modern Physics Cr. 3.
- PHYS 36100 - Electronics for Scientists Cr. 4.

Total Credits: 16-18

Political Science Minor

Program: Minor
Department of Political Science
College of Arts and Sciences

Liberal Arts Building 209 ~ 260-481-6686 ~ www.ipfw.edu/pols

Program Requirements

If you are pursuing a major other than political science, you may earn a minor in political science by completing a minimum of 18 credits, including at least 9 resident credits, in the discipline with a grade of C- or better in each course and an overall GPA of 2.00 or higher. A maximum of 6 credits may be earned in 100-level courses, and a minimum of 6 credits in courses at or above the 300 level (not including Y398 or Y482). Neither Y398 (Internship in Urban Institutions) nor Y482 (Practicum) may count for more than 6 of the 18 credits; these two courses together may not count for more than 9 of the 18 credits.

Professional Writing Minor

Program: Minor
Department of English and Linguistics
College of Arts and Sciences

Liberal Arts Building 145 ~ 260-481-6841

This program is available to all IPFW students except those pursuing the language, teacher-certification, or writing concentration with a major in English.

Program Requirements

You may earn a minor in professional writing by completing the following 15 credits, including at least 8 credits completed as resident credit at IPFW, with a grade of C or better in each course.

Preparatory course work in writing (minimum of 3 credits)

One of the following: Credits: 3

- ENG W232 - Introduction to Business Writing Cr. 3.
- ENG W233 - Intermediate Expository Writing Cr. 3.
- ENG W234 - Technical Report Writing Cr. 3.
- ENG W331 - Business and Administrative Writing Cr. 3.

Advanced course work in professional writing

(minimum of 9 credits)

- ENG W365 - Theories and Practices of Editing Cr. 3.
- ENG W367 - Writing for Multiple Media Cr. 3.
- ENG W398 - Internship in Writing Cr. 1-3.
- ENG W420 - Argumentative Writing Cr. 3.
- ENG W421 - Technical Writing Projects Cr. 1-3.
- ENG W425 - Research Methods for Professional Writers Cr. 3.
- ENG W462 - Studies in Rhetoric and Composition Cr. 3.
  (Only topics specifically related to professional writing)

Elective (minimum of 3 credits) Credits: 3

Any course from the above two areas not used to fulfill the area distribution requirements. Any other course at the 200 level and above which supports your professional interest in writing. Examples include but are not limited to the following courses:

- VCD P254 - Principles of Graphic Design II Cr. 3.
  This course must be approved by the English department chair.
- COM 32400 - Introduction to Organizational Communication Cr. 3.
- ENG W350 - Advanced Expository Writing Cr. 3.
- ENG W405 - Writing Prose - Nonfiction Cr. 2-3.
- JOUR J200 - Reporting, Writing and Editing I Cr. 3.
- JOUR J310 - Editorial Practices Cr. 3.

Total Credits: 15

Psychology Minor

Program: Minor
Department of Psychology
College of Arts and Sciences

If you are pursuing a major other than psychology, you may earn a minor in psychology by completing the following 15 credits with a grade of C- or better in each course and earning at least 8 credits as resident credit at IPFW:

Program Requirements

- PSY 12000 - Elementary Psychology Cr. 3.

One of the following: Credits: 3

- PSY 31400 - Introduction to Learning Cr. 3.
- PSY 32900 - Psychobiology II: Principles of Psychobiological Psychology Cr. 3.
- PSY 41600 - Cognitive Psychology Cr. 3.

One of the following: Credits: 3

- PSY 23500 - Child Psychology Cr. 3.
  Credit not given for both PSY 23500 & PSY 36900
- PSY 24000 - Introduction to Social Psychology Cr. 3.
- PSY 36900 - Development Across the Lifespan Cr. 3.
  Credit not given for both PSY 23500 & PSY 36900

One of the following: Credits: 3

- PSY 35000 - Abnormal Psychology Cr. 3.
- PSY 42000 - Introduction to Personality Theory Cr. 3.

Additional credits in a psychology course numbered 200 or above Credits: 3

Total Credits: 15

Public Affairs Minor

Program: Minor

The minor in public affairs offers you the opportunity to become more knowledgeable in the field of public administration and the policy implications of the public sector. It is available to students who are enrolled in baccalaureate programs and can enhance career opportunities for liberal arts and other majors.

Program Requirements

Each minor requires 15 hours of specified courses with a 2.0 grade-point average, and none of the courses may be taken by correspondence through the Division of Continuing Studies.

SPEA majors may double-count only 6 of the required 15 credit hours in other SPEA major or minor requirements. Students may earn more than one minor from SPEA, but each minor must have at least 9 hours that are not satisfying other major or minor requirements.

- SPEA V170 - Introduction to Public Affairs Cr. 3.
  C- or better required

One of the following: Credits: 3

- SPEA E162 - Environment and People Cr. 3.
- SPEA E272 - Introduction to Environmental Sciences Cr. 3.

Three of the following: Credits: 9

- SPEA E272 - Introduction to Environmental Sciences Cr. 3.
- SPEA E400 - Topics in Environmental Studies Cr. 3.
  (may be repeated)
- SPEA V263 - Public Management Cr. 3.
- SPEA V366 - Managing Behavior in Public Organizations Cr. 3.
- SPEA V373 - Human Resources Management in the Public Sector Cr. 3.
- SPEA V376 - Law and Public Policy Cr. 3.
- SPEA V450 - Contemporary Issues in Public Affairs Cr. 1-3.
  (may be repeated)

Total Credits: 15

Public Relations Minor

Program: Minor
School of Arts and Sciences

Neff Hall 343 ~ 260-481-6685 ~ www.ipfw.edu/jour/

The IPFW Journalism Program offers two minors that may be completed as part of a bachelor's program at IPFW. The public relations minor will appeal to those wishing to concentrate in the corporate communications or advertising/public relations industries; the journalism minor described earlier provides basic underpinning for those interested in various media.

These minors are especially appropriate for media and public communication or English communication media majors.

Program Requirements

To earn the minor, you must complete each course with a grade of C or better, with at least 11 of the credits taken as resident credit at IPFW.

- JOUR J200 - Reporting, Writing and Editing I Cr. 3.

Two of the following: Credits: 6

- JOUR J210 - Visual Communication Cr. 3.
- JOUR J310 - Editorial Practices Cr. 3.
- JOUR J315 - Feature Writing Cr. 3.

Two of the following: Credits: 6

- COM 25300 - Introduction to Public Relations Cr. 3.
- COM 33200 - Television Studio Production Cr. 3.
- JOUR J280 - Sophomore Seminar in Journalism Cr. 3.
- JOUR J390 - Corporate Publications Cr. 1-3.
- JOUR J427 - Public Relations in a Democratic Society Cr. 3.

One of the following: Credits: 3

- COM 49000 - Internship in Communication Cr. 1-3.
- ENG W398 - Internship in Writing Cr. 1-3.
- JOUR J492 - Media Internship Cr. 1-3.

Total Credits: 18

Religious Studies Minor

Program: Minor Department of Philosophy
College of Arts and Sciences

Liberal Arts Building 23~ 260-481-6366 ~ www.ipfw.edu/phil

Religious Studies is an interdisciplinary program housed in the department of philosophy. Students may earn a minor in religious studies by completing the following credits with a grade of C or better in each course and earning at least 8 credits as resident credit at IPFW. Substitutions for these courses may be made with the approval of the program coordinator.

Program Requirements

- REL 11200 - Religion and Culture Cr. 3.
- PHIL 20600 - Philosophy of Religion Cr. 3.
- REL 23000 - Religions of the East Cr. 3.
- REL 23100 - Religions of the West Cr. 3.

Additional Credits

One course at the 300 level or above with significant emphasis on the academic study of religion. Credits: 3

Note: Must get course approval from the program coordinator.

Total Credits: 15

Sociology Minor

Program: Minor
Department of Sociology
College of Arts and Sciences

Liberal Arts Building 241 ~ 260-481-6842 ~ www.ipfw.edu/sociology

Program Requirements

If you are pursuing a major other than sociology, you may earn a minor in sociology by completing 15 credits with a grade of C or better in each course, including at least 8 credits as resident credit at IPFW, a minimum of 9 credits at the 300 level or above, and no more than 3 credits of SOC S495 or directed study.

Spanish Minor

Program: Minor
Department of International Language and Culture Studies
College of Arts and Sciences

Liberal Arts Building 267 ~ 260-481-6836 ~ www.ipfw.edu/ilcs/

If you are pursuing a major other than Spanish, you may earn a minor in Spanish by completing the following credits with a grade of C or better in each course and earning at least 8 credits as resident credit at IPFW:

Study Abroad Both majors and nonmajors are encouraged to study abroad. For those who wish to study Spanish, Indiana University administers and cosponsors an academic-year program in Madrid, Spain; semester programs in Spain (Alicante, Madrid, and Seville) and Chile (Santiago); and summer programs in Spain (Salamanca) and Mexico (Cuernavaca and Guanajuato).

Program Requirements

One of the following 300-level literature courses Credits: 3

- SPAN S301 - The Hispanic World I Cr. 3.
- SPAN S302 - The Hispanic World II Cr. 3.

Additional 300- or 400-level Spanish civilization, language, or literature course Credits: 3

- SPAN S275 - Hispanic Culture and Conversation Cr. 3.
- SPAN S311 - Spanish Grammar Cr. 3.
- SPAN S312 - Written Composition in Spanish Cr. 3.

Total Credits: 15

Spanish Teaching Minor

Program: Teaching Minor
Department of International Language and Culture Studies
College of Arts and Sciences

Liberal Arts Building 267 ~ 260-481-6836 ~ www.ipfw.edu/ilcs/

If you are already licensed or qualified to be licensed in another area, you may earn a Spanish teaching minor by completing the following 38 credits with a grade of C or better in each course.

Program Requirements

- SPAN S111 - Elementary Spanish I Cr. 4.
- SPAN S112 - Elementary Spanish II Cr. 4.
- SPAN S203 - Second-Year Spanish I Cr. 3.
- SPAN S204 - Second-Year Spanish II Cr. 3.
- SPAN S275 - Hispanic Culture and Conversation Cr. 3.
- SPAN S311 - Spanish Grammar Cr. 3.
- SPAN S312 - Written Composition in Spanish Cr. 3.
- SPAN S317 - Spanish Conversation and Diction Cr. 3.
- SPAN S488 - Spanish for Teachers Cr. 3.

One of the following 300-level literature courses Credits: 3

- SPAN S301 - The Hispanic World I Cr. 3.
- SPAN S302 - The Hispanic World II Cr. 3.

One of the following culture/civilization courses: Credits: 3

- SPAN S411 - Spain: The Cultural Context Cr. 3.
- SPAN S412 - Spanish America: The Cultural Context Cr. 3.
- SPAN S413 - Hispanic Culture in the U.S. Cr. 3.

Total Credits: 38

Theatre Minor

Program: Minor
Department of Theatre
College of Visual and Performing Arts

Williams Theatre 128 ~ 260-481-6551 ~ www.ipfw.edu/vpa/theatre

Program Requirements

You may earn a theatre minor by completing the following courses and earning a grade of C or better in each:

- THTR 13400 - Fundamentals of Performance Cr. 3.
- THTR 13800 - Acting I Cr. 3.
- THTR 16800 - Theatre Production I Cr. 1.
  Must be repeated once for total of 2 credits
- THTR 20100 - Theatre Appreciation Cr. 3.
- THTR 26100 - Introduction to Theatrical Design Cr. 3.
- THTR 28400 - Textual Analysis Cr. 3.

One of the following: Credits: 3

- THTR 47000 - Theatre and Society I Cr. 3.
- THTR 47100 - Theatre and Society II Cr. 3.

Theatre electives Credits: 3

Total Credits: 23

Women's Studies Minor

Program: Minor
College of Arts and Sciences

Liberal Arts Building 35F ~ 260-481-6711 ~ www.ipfw.edu/wost

Women's studies is based on the premise that the study of women's experiences, concerns, social roles, and creativity is essential to our knowledge of humankind and society. Feminist scholarship and theory provide the knowledge and analytical tools necessary for a gender-balanced perspective on our world, both past and present. The Women's Studies Program affords you the opportunity to pursue feminist scholarship on women and gender through a variety of interdisciplinary courses.

See College of Arts and Sciences in see Part 4 for further information.

If you are pursuing a major other than women's studies, you may earn a minor in women's studies by completing the following 15 credits with a grade of C or better in each course and earning at least 8 credits as resident credit at IPFW.

Program Requirements

- Credits from cross-listed courses in humanities or visual arts Credits: 3

- Credits from cross-listed courses offered in social science or natural science Credits: 3

- Additional credits in cross-listed or WOST-prefixed courses Credits: 6

- WOST W210 - Introduction to Women's Studies Cr. 3.

Total Credits: 15

Research Certificate

Anthropology Research Certificate

Program: Research Certificate in Anthropology
Department of Anthropology
College of Arts and Sciences

Kettler Hall G11A ~ 260-481-6272 ~ www.ipfw.edu/anthropology

The student learning outcomes for the degree are as follows:

- Achieve familiarity with different cultures in at least two regions of the world
- Know the major anthropological approaches to understanding the human condition
- Be able to explain societies in a holistic manner
- Achieve competency in writing
- Demonstrate critical thinking
- Acquire quantitative skills for analysis
- Demonstrate a willingness to engage learning and scholarship as a life-long endeavor

Courses in anthropology provide an understanding of the nature of cultures and help you assess various explanations of human behavior; they also assist in the development of analytical and critical abilities. The curriculum is structured to include studies in the history and theory of anthropology, in four anthropological fields (ethnology, archaeology, bioanthropology, and linguistics), in at least two different world ethnographic areas, and in topical specializations. The program helps you prepare for graduate study, for teaching, and for careers in which the understanding of various cultures is an asset.

Although a minor is not required for the B.A. with a major in anthropology, an outside concentration is recommended. Fifteen credits in history, political science, psychology, or sociology support the concentration.

Research Writing

- ENG W233 - Intermediate Expository Writing Cr. 3.

History, Philosophy, or Theory of the Discipline

- ANTH H445 - History and Theory of Anthropology Cr. 3.

Cognate Research Tools

Any STAT course or one of the following:

- POLS Y395 - Quantitative Political Analysis Cr. 3.
- PSY 20100 - Introduction to Statistics in Psychology Cr. 3.
- SOC S351 - Social Statistics Cr. 3.

Research Methods and Supervised Individual Research Credits: 6

Individualized Research
- ANTH A495 - Individual Readings in Anthropology Cr. 1-4.
  and/or
  Research Methods
- ANTH P382 - Archaeological Research Design Cr. 3.
- ANTH P400 - Archaeological Methods and Techniques Cr. 2-4.

Total Credits: 15

Note

Each student must present his or her research in a professional forum approved by the anthropology faculty.

Biology Research Certificate

Program: Research Certificate
Department of Biology
College of Arts and Sciences

Science Building 330 ~ 260-481-6305 ~ www.ipfw.edu/bio

The student learning outcomes for the degree are as follows:

- To provide students with significant hands-on experience and training in the use of scientific methods to test hypotheses and to answer questions.

Research Writing

- ENG W233 - Intermediate Expository Writing Cr. 3.

History, Philosophy, or Theory of the Discipline

- BIOL 11700 - Principles of Ecology and Evolution Cr. 4.

- BIOL 11900 - Principles of Structure and Function Cr. 4.
- BIOL 21700 - Intermediate Ecology Cr. 3.
- BIOL 21800 - Genetics and Molecular Biology Cr. 4.
- BIOL 21900 - Principles of Functional Biology Cr. 4.

Cognate Research Tools

- STAT 34000 - Elementary Statistical Methods II Cr. 3.

Research Methods and Supervised Individual Research Credits: 6

The BIOL 295/595 must contain a prefix in its title to signify laboratory or fieldwork involving the design of an original project and collection and analysis of data.

- BIOL 29500 - Special Assignments Cr. 1-3.
  and/or
- BIOL 59500 - Special Assignments Cr. 1-4.

Total Credits: 30

Chemistry Research Certificate

Program: Research Certificate
Department of Chemistry
College of Arts and Sciences

Science Building 496 ~ 260-481-6289 ~ www.ipfw.edu/chem

- **Mathematical and quantitative reasoning**
  - Student will be able to analyze, synthesize, and comprehend experimental and computational data describing the physical universe. This skill requires knowledge of mathematical and statistical techniques that can be used analytically.
- **Classical and instrumental laboratory techniques: both analytical and synthetic**
  - Students will learn precise measuring techniques as well as careful and meticulous record-keeping. They will master the use of a variety of modern instruments and will become proficient in fundamental organic synthetic methods.
- **Individual and collaborative problem-solving**
  - The student will develop independent problem-solving skills as well as the ability to work collaboratively in a team environment on complex chemical systems.
- **Chemical literature**
  - The student will learn basic tools and concepts for efficient use of chemical literature, including multiple computerized databases. The student will also be expected to analyze sources for relevance and authority and to learn how scientific writings are constructed according to style.
- **Philosophy of Science**
  - The student will examine topics at the intersection of science and philosophy, specifically addressing fundamental issues in the history, philosophy, and theoretical structure of modern science.
- **Research in Chemistry**

- o The student will learn research methods and tools appropriate to chemistry and will apply them to the design and execution of a research project. The student will present results of the research project.
- **Summary of key concepts**
  - o In the teaching of Chemistry from the point-of-view of various sub-disciplines, the following concepts form the core course content. It should be noted that courses offered by the IPFW Department of Chemistry will include, but are not simply limited to, the following points of emphasis:
    - **Analytical Chemistry**
      - Analytical methods (classical and instrumental)
      - Sensitivity and detection limits
      - Statistical treatment of data
    - **Biochemistry (for premedicine and predental options)**
      - Structure, metabolic relationships, and regulation of biomolecules
    - **General Chemistry**
      - Semi-quantitative microscopic model of the physical universe based on macroscopic observations
      - Terminology
      - Periodic relationships
      - Elementary computational skills
      - Introductory laboratory skills
    - **Inorganic Chemistry**
      - Chemical bonding and structure
      - Reactivity, reaction mechanisms, and properties
      - Solid state and material science
      - Organometallic chemistry
      - Spectroscopic determination of structure
    - **Organic Chemistry**
      - Chemical bonding and structure including valence bond and molecular orbital theories
      - Reactivity, reaction mechanisms, and properties of the important functional groups
      - Synthesis
      - Spectroscopic determination of structure
      - Material science and bio-organic chemistry
    - **Physical Chemistry**
      - Mathematical and physical principles that underlie modern Chemistry
      - Detailed understanding of the modern microscopic model of the universe
      - The principal topic areas are:
        1. Quantum Chemistry
        2. Thermodynamics
        3. Statistical mechanics
        4. Spectroscopy
        5. Kinetics

Research Writing

- ENG W233 - Intermediate Expository Writing Cr. 3.

History, Philosophy, or Theory of the Discipline

- PHIL 35100 - Philosophy of Science Cr. 3.

Cognate Research Tools

- MA 26100 - Multivariate Calculus Cr. 4.

Research Methods and Supervised Individual Research

- CHM 42400 - Analytical Chemistry II Cr. 4.
- CHM 49900 - Special Assignments Cr. 1-5
  Credits: 3

Total Credits: 17

Mathematical Sciences Research Certificate

Program: Research Certificate
Department of Mathematical Sciences
College of Arts and Sciences

Kettler Hall 200 ~ 260-481-6821 ~ www.ipfw.edu/math

The student learning outcomes for the degree are as follows:

- Students in the program will learn research methods and tools appropriate to the mathematical sciences, learn the foundations of research in the theory of the discipline, learn the advanced communication skills, and apply what they have learned by executing a research project and communicating the results to others.

Research Writing

- ENG W233 - Intermediate Expository Writing Cr. 3.

History, Philosophy, or Theory of the Discipline

- MA 30500 - Foundations of Higher Mathematics Cr. 3.

Cognate Research Tools

One of the following Credits: 3-4

- CS 16000 - Introduction to Computer Science I Cr. 4.
- MA 17500 - Introductory Discrete Mathematics Cr. 3.
- STAT 51100 - Statistical Methods Cr. 3.

Research Methods and Supervised Individual Research

- One upper-level undergraduate or dual-level course in mathematics or statistics appropriate to the area of research (e.g., MA 453, MA 441, MA 575, STAT 517)Credits: 3
- MA 35100 - Elementary Linear Algebra Cr. 3.
- MA 49000 - Topics in Mathematics for Undergraduates Cr. 1-5. Credits: 3

Total Credits: 18-19

Physics Research Certificate

Program: Research Certificate
Department of Physics
College of Arts and Sciences

Kettler Hall 126B ~ 260-481-6306 ~ www.ipfw.edu/physics/

The student learning outcomes for the degree are as follows:

- Add student learning outcome
- Add student learning outcome

Research Writing

- ENG W233 - Intermediate Expository Writing Cr. 3.

History, Philosophy, or Theory of the Discipline

- PHYS 34200 - Modern Physics Cr. 3.

Cognate Research Tools

One of the following Credits: 4

- CS 16000 - Introduction to Computer Science I Cr. 4.
- MA 26100 - Multivariate Calculus Cr. 4.

Research Methods and Supervised Individual Research

- PHYS 34300 - Modern Physics Laboratory Cr. 1.

One of the following Credits: 3-4

- PHYS 32200 - Optics Cr. 3.
- PHYS 32500 - Scientific Computing Cr. 3.
- PHYS 36100 - Electronics for Scientists Cr. 4.
- PHYS 40500 - Atomic and Molecular Physics Cr. 3.
- PHYS 52000 - Mathematical Physics Cr. 3.

Credits in the following: 6

- PHYS 27000 - Special Topics in Physics Cr. 1-5.
- PHYS 47000 - Special Topics in Physics Cr. 1-5.

Total Credits: 20-21

Psychology Research Certificate

Program: Research Certificate
Department of Psychology
College of Arts and Sciences

Neff Hall 388 ~ 260-481-6403 ~ www.ipfw.edu/psyc

The student learning outcomes for the degree are as follows:

- Students will demonstrate the ability to understand and use the major research methods in psychology, including ethical standards, design, data analysis, and interpretation.

The research certificate is described under Arts and Sciences in Part 4 of this *Bulletin.*

Research Writing

- ENG W233 - Intermediate Expository Writing Cr. 3.

History, Philosophy, or Theory of the Discipline

- PSY 54000 - History of Psychology Cr. 3.

Cognate Research Tools

- PSY 20100 - Introduction to Statistics in Psychology Cr. 3.

Research Methods and Supervised Individual Research

- PSY 20300 - Introduction to Research Methods in Psychology Cr. 3.
- PSY 49600 - Readings and Research in Psychology Cr. 3.
  (as a research assistant to a faculty member)
- PSY 49900 - Honors Thesis in Psychology Cr. 3.

Total Credits: 18

Teacher Certification

Chemistry Teaching Minor

Program: Minor
Department of Chemistry
College of Arts and Sciences

Science Building 496 ~ 260-481-6289 ~ www.ipfw.edu/chem

If you are already licensed or qualified to be licensed in another area, you may earn a chemistry teaching minor by completing the following 32 credits with a grade of C or better in each course.

Program Requirements

- CHM 11500 - General Chemistry Cr. 4.
- CHM 11600 - General Chemistry Cr. 4.
- CHM 21800 - Introduction to Inorganic Chemistry Cr. 3.
- CHM 22400 - Introductory Quantitative Analysis Cr. 4.
- CHM 25400 - Organic Chemistry Laboratory Cr. 1.
- CHM 25500 - Organic Chemistry Cr. 3.
- CHM 25600 - Organic Chemistry Cr. 3.
- CHM 25800 - Organic Chemistry Laboratory Cr. 1.
- CHM 37100 - Physical Chemistry Cr. 3.
- EDUC Q400 - Man and Environment: Instructional Methods Cr. 3.
- MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.

Total Credits: 32

Earth and Space Science Teaching Minor

Program: Minor
Department of Educational Studies
School of Education

Neff Hall 250 ~ 260-481-6441 ~ www.ipfw.edu/educ

If you are already licensed or qualified to be licensed in another area, you may earn an earth and space science teaching minor by completing the following 27–28 credits with a grade of C or better in each course.

Program Requirements

- AST A100 - The Solar System Cr. 3.
- CHM 11500 - General Chemistry Cr. 4.
- EDUC Q400 - Man and Environment: Instructional Methods Cr. 3.
- GEOL G221 - Introductory Mineralogy Cr. 3-4.
  Credits: 3
- GEOL G222 - Introduction to Petrology Cr. 3-4.
- GEOL G420 - Regional Geology Field Trip Cr. 1-2.
  Credits: 2

One of following Credits: 3-4

- GEOG G107 - Physical Systems of the Environment Cr. 3.
  with GEOL L100 (4 credits)
- GEOL G100 - General Geology Cr. 3-5.
  with L100 (4 credits)
- GEOL G103 - Earth Science: Materials and Processes Cr. 3.

One of following Credits: 3

- GEOL G104 - Earth Science: Evolution of the Earth Cr. 3.
- GEOL G211 - Introduction to Paleobiology Cr. 3.

One of following Credits: 3

- GEOL G315 - Environmental Conservation
- GEOL G300 - Environmental and Urban Geology Cr. 3.
- GEOL G415 - Geomorphology Cr. 3-4.

Total Credits: 27-28

Economics (Social Studies) Teacher Certification

Program: Teacher Certification
College Arts and Sciences

Neff Hall 366B ~ 260-481-6483 ~ www.ipfw.edu/econ

The student learning outcomes for the degree are not available, please contact the department.

Economics is the study of the rational allocation of scarce resources. The major seeks to develop those critical skills that help you understand and solve problems in a wide variety of circumstances. These analytical abilities are valuable in the business world and many professional disciplines such as law and social work.

This program is offered in close cooperation with the Department of Economics in the Richard T. Doermer School of Business and Management Sciences, which offers all economics courses required for the major.

You may be certified as a teacher of social studies after fulfilling all requirements for the B.A. with a major in economics and all requirements for teacher certification. Full information on teacher certification requirements is available from the School of Education.

Prior to your junior year, the School of Education requires that you successfully complete EDUA F300, EDUC W200/M101, and EDUC 201 and the Pre-Professional Skills Test (PPST) before admission to the teacher education program. The PRAXIS II Specialty Area Exam must be completed before or during the student-teaching semester, normally in your senior year.

Geology Teacher Certification

Program: Teacher Certification
Department of Geosciences
College of Arts and Sciences

Science Building 230 ~ 260-481-6249 ~ www.geosci.ipfw.edu

You may be certified as a teacher of earth and space science after fulfilling the requirements for a B.A. with a major in geology or a B.S. in geology (ENG W233 must be taken as your writing requirement) and the requirements for teacher certification listed below.

The School of Education requires that you first complete EDUA F300, EDUC W200/M101, and EDUC K201 before you are permitted to take professional education courses. Prior to your junior year, you must successfully complete the Pre-Professional Skills Test (PPST) before admission to the teacher education program. The PRAXIS II Specialty Area Exam must be completed before or during the student-teaching semester, normally in your senior year.

To be eligible to apply for teacher licensure, you must earn a GPA of 2.00 or higher in each general education area. You should work closely with your advisor to ensure completion of general education requirements for teacher licensing. You must also earn a cumulative GPA of 2.50 or higher in your major area and the professional education courses with an overall GPA of 2.5 or higher. Each professional education course must be completed with a grade of C or better.

Additional information on teacher-certification requirements is available from the School of Education.

Professional Education

Prior to being admitted to the teacher education program, you must complete the Initial Requirement courses and pass the PPST.

Initial Requirements

- EDUA F300 - Topical Exploration in Education Cr. 1-3.
  Credits: 2
- EDUC K201 - Schools, Society, and Exceptionality Cr. 1-3.
  Credits: 1
- EDUC M101 - Laboratory/Field Experience Cr. 0-3.
  Credits: 0
- EDUC W200 - Using Computers for Education Cr. 1.

Block I

- AST A100 - The Solar System Cr. 3.
- EDUC H340 - Education and American Culture Cr. 2-3.
  Credits: 3
- EDUC K206 - Teaching Methods for Students with Special Needs Cr. 1-3.
  Credits: 3
- EDUC P250 - General Educational Psychology Cr. 1-4.
- EDUC M201 - Laboratory/Field Experience Cr. 0-3.

Block II

- EDUC M449 - Methods of Teaching Science in the Secondary Schools Cr. 3.
- EDUC P253 - Educational Psychology for Secondary Teachers Cr. 1-4.
- EDUC M301 - Laboratory/Field Experience Cr. 0-3.
- EDUC M401 - Laboratory/Field Experience Cr.0-3.
- EDUC Q400 - Man and Environment: Instructional Methods Cr. 3.
- EDUC X401 - Critical Reading in the Content Area Cr. 1-3.

Student Teaching

- EDUC M480 - Student Teaching in the Secondary School Cr. 1-16.
  Credits: 12
- EDUC M501 - Lab/Field Experience Cr. 0-3.
  Credits: 0
- EDUC M470 - Practicum Cr. 3-8.
  (recommended for Middle School certification) Credits: 4

History (Social Studies) Teacher Certification

Program: Teacher Certification
Department of History
College of Arts and Sciences

Liberal Arts Building 209 ~ 260-481-6686 ~ www.ipfw.edu/hist

You may be certified as a teacher of social studies after fulfilling all requirements for the B.A. with a major in history and all requirements for teacher certification. Full information on teacher-certification requirements is available from the School of Education.

Prior to your junior year, the School of Education requires that you successfully complete EDUA F300, EDUC W200/M101, and EDUC K201 and the Pre-Professional Skills Test (PPST) before admission to the teacher education program. The PRAXIS II Specialty Area Exam must be completed before or during the student-teaching semester, normally in your senior year.

Language Arts Teaching Minor

Program: Minor
Department of English and Linguistics

If you are already licensed or qualified to be licensed in another area, you may earn a language arts teaching minor by completing the following 24 credits with a grade of C or better in each course.

Program Requirements

- One elective 300-level course in British literature Credits: 3
- One elective 300-level course in American literature Credits: 3
- ENG L391 - Literature for Young Adults Cr. 3.
- EDUC X401 - Critical Reading in the Content Area Cr. 1-3.

One of the following Credits: 3

- COM 25000 - Mass Communication and Society Cr. 3.
- JOUR C200 - Mass Communications Cr. 3.

One of the following Credits: 3

- One course in multicultural literature
- ENG L101 - Western World Masterpieces I: Ancient to Renaissance Cr. 3.
- ENG L102 - Western World Masterpieces II: Renaissance to Modern Cr. 3.

One of the following Credits: 3

- ENG L202 - Literary Interpretation Cr. 3.
- ENG W233 - Intermediate Expository Writing Cr. 3.

One of the following Credits: 3

- ENG G205 - Introduction to the English Language Cr. 3.
- ENG G206 - Introduction to the Study of Grammar Cr. 3.
- LING L103 - Introduction to the Study of Language Cr. 3.

Total Credits: 24

Life Science Teaching Minor

Program: Minor
Department of Biology
College of Arts and Sciences

If you are already licensed or qualified to be licensed in another area, you may earn a life science teaching minor by completing the following 29 credits with a grade of C or better in each course.

Program Requirements

- BIOL 11700 - Principles of Ecology and Evolution Cr. 4.
- BIOL 11900 - Principles of Structure and Function Cr. 4.
- BIOL 21700 - Intermediate Ecology Cr. 3.
- BIOL 21800 - Genetics and Molecular Biology Cr. 4.
- BIOL 21900 - Principles of Functional Biology Cr. 4.
- CHM 11500 - General Chemistry Cr. 4.
- CHM 11600 - General Chemistry Cr. 4.
- EDUC Q400 - Man and Environment: Instructional Methods Cr. 3.

Total Credit: 29

Mathematics Teacher Certification Minor

Program: Teacher Certification Minor
Department of Mathematical Sciences
College of Arts and Sciences

Kettler Hall 200 ~ 260-481-6821 ~ www.ipfw.edu/math

If you are already licensed or qualified to be licensed in another area, you may earn a mathematics teaching minor by completing the following 26–27 credits with a grade of C or better in each course.

Program Requirements

- MA 16500 - Analytic Geometry and Calculus I Cr. 4.
- MA 16600 - Analytic Geometry and Calculus II Cr. 4.
- MA 17500 - Introductory Discrete Mathematics Cr. 3.
- MA 30500 - Foundations of Higher Mathematics Cr. 3.
- MA 35100 - Elementary Linear Algebra Cr. 3.
- MA 56000 - Fundamental Concepts of Geometry Cr. 3.

One of the following: Credits: 3-4

- CS 11400 - Introduction to Visual Basic Cr. 3.
- CS 16000 - Introduction to Computer Science I Cr. 4.
- MA 45300 - Elements of Algebra Cr. 3.
- MA 57500 - Graph Theory Cr. 3.

One of the following: Credits: 3

- STAT 51100 - Statistical Methods Cr. 3.
- STAT 51600 - Basic Probability and Applications Cr. 3.

Total Credits: 26-27

Mild Intervention Certification

In addition to the major in elementary or secondary education, students may earn certification in mild intervention. (This certification qualifies a teacher to teach students with emotional, learning, mild, and moderate disabilities in elementary or secondary school settings, depending on your current license.) Each course in the Mild Intervention Certification must be completed with a grade of C or better. (Note: a 24-credit graduate version of this program is available. See the graduate bulletin for more details.)

Program Requirements

One of the following:
- EDUC K201 - Schools, Society, and Exceptionality Cr. 1-3.
- EDUC K305 - Teaching the Exceptional Learner in the Elementary School Cr. 3.
- EDUC K306 - Teaching Students with Special Needs in Secondary Classrooms Cr. 3.
  One of the following:
- EDUC K206 - Teaching Methods for Students with Special Needs Cr. 1-3.
- EDUC K307 - Methods for Teaching Students with Special Needs Cr. 3.
  Each of the remaining:
- EDUC K370 - Introduction to Learning Disabilities Cr. 3.
- EDUC K441 - Transition Across the Lifespan Cr. 3.
- EDUC K453 - Management of Academic and Social Behavior Cr. 3.
- EDUC K371 - Assessment and Individualized Instruction in Reading and Mathematics Cr. 3.
- EDUC M301 - Laboratory/Field Experience Cr. 0-3.
- EDUC K352 - Education of Children with Learning Problems (LD and EMR) Cr. 3.
- EDUC M201 - Laboratory/Field Experience Cr. 0-3.
- EDUC K465 - Service Delivery Systems and Consultation Strategies Cr. 3.
- EDUC M470 - Practicum Cr. 3-8.
  (4 credits - Final Course)

Total Credits: 26-28

The Mild Intervention program is undergoing revisions. Students enrolled in an elementary teacher certification program will follow slightly different course requirements than students enrolled in a secondary or all-grade teacher certification program. Please see your education advisor or the special education coordinator to make sure you are selecting the appropriate "One of the following:" courses listed above.

Physical Science Teaching Certification - Chemistry

To earn the physical science teaching certification, you must fulfill all requirements for the B.S. with a major in chemistry or physics, and you must complete ENG W233 as your writing requirement and satisfactorily complete the courses listed below.

The School of Education requires that you first complete EDUA F300, EDUC W200/M101, and EDUC K201 before you are permitted to take professional education courses. Prior to your junior year, you must successfully complete the Pre-Professional Skills Test (PPST) before admission to the teacher education program. The PRAXIS II Specialty Area Exam must be completed before or during the student-teaching semester, normally in your senior year.

To be eligible to apply for teacher licensure, you must earn a GPA of 2.00 or higher in each general education area. You should work closely with your advisor to ensure completion of general education requirements for teacher licensing. You must also earn a cumulative GPA of 2.50 or higher in your major area and the professional education courses with an overall GPA of 2.5 or higher. Each professional education course must be completed with a grade of C or better.

Content Requirements

- CHM 11500 - General Chemistry Cr. 4.
- CHM 11600 - General Chemistry Cr. 4.
- CHM 25400 - Organic Chemistry Laboratory Cr. 1.
- CHM 25500 - Organic Chemistry Cr. 3.
- CHM 25600 - Organic Chemistry Cr. 3.
- CHM 25800 - Organic Chemistry Laboratory Cr. 1.
- MA 15300 - Algebra and Trigonometry I Cr. 3.
- MA 15400 - Algebra and Trigonometry II Cr. 3.
- MA 16500 - Analytic Geometry and Calculus I Cr. 4.
- MA 16600 - Analytic Geometry and Calculus II Cr. 4.
- MA 26100 - Multivariate Calculus Cr. 4.
- PHYS 15200 - Mechanics Cr. 5.
- PHYS 25100 - Heat, Electricity, and Optics Cr. 5.
- PHYS 31000 - Intermediate Mechanics Cr. 4.
- PHYS 32200 - Optics Cr. 3.
- PHYS 34200 - Modern Physics Cr. 3.
- PHYS 34300 - Modern Physics Laboratory Cr. 1.

School of Education Requirements

Prior to being admitted to the teacher education program, you must complete an initial set of requirements.

Initial Requirements:

- PPST
- EDUA F300 - Topical Exploration in Education Cr. 1-3.
  Course Title: Invitation to Teaching
  Credits: 2
- EDUC K201 - Schools, Society, and Exceptionality Cr. 1-3.
  Credits: 2
- EDUC M101 - Laboratory/Field Experience Cr. 0-3.
  Credits: 0
- EDUC W200 - Using Computers for Education Cr. 1.
  Credits: 1
  (a grade of A or B is required)

Block 1: Teacher Education (Prerequisite: Initial Requirements)

- EDUC H340 - Education and American Culture Cr. 2-3.
  Credits: 3
- EDUC K206 - Teaching Methods for Students with Special Needs Cr. 1-3.
  Credits: 3
- EDUC M201 - Laboratory/Field Experience Cr. 0-3.
  Credits: 0
- EDUC P250 - General Educational Psychology Cr. 1-4.
  Credits: 3

Block 2: Professional Education (Prerequisite: Block 1)

- EDUC M201 - Laboratory/Field Experience Cr. 0-3.
  Credits: 0
- EDUC M449 - Methods of Teaching Science in the Secondary Schools Cr. 3.
- EDUC P253 - Educational Psychology for Secondary Teachers Cr. 1-4.
  Credits: 3
- EDUC Q400 - Man and Environment: Instructional Methods Cr. 3.
- EDUC X401 - Critical Reading in the Content Area Cr. 1-3.
  Credits: 3

Student Teaching

- EDUC M501 - *Portfolio* Cr. 0
- EDUC M470 - Practicum Cr. 3-8.
  (recommended for Middle School Endorsement area)
  Credits: 4
- EDUC M480 - Student Teaching in the Secondary School Cr. 1-16.
  Credits: 12

Additional Credits: 93

Physical Science Teaching Certification Minor

Program: Minor
Department of Chemistry
College of Arts and Sciences

Science Building 496 ~ 260-481-6289 ~ www.ipfw.edu/chem

If you are already licensed or qualified to be licensed in another secondary area, you may earn a physical science teaching minor by completing the following 62 credits with a grade of C or better in each course.

Program Requirements

- CHM 11500 - General Chemistry Cr. 4.
- CHM 11600 - General Chemistry Cr. 4.
- CHM 22400 - Introductory Quantitative Analysis Cr. 4.
- CHM 25400 - Organic Chemistry Laboratory Cr. 1.
- CHM 25500 - Organic Chemistry Cr. 3.
- CHM 25600 - Organic Chemistry Cr. 3.
- CHM 25800 - Organic Chemistry Laboratory Cr. 1.
- EDUC Q400 - Man and Environment: Instructional Methods Cr. 3.
- MA 15300 - Algebra and Trigonometry I Cr. 3.
- MA 15400 - Algebra and Trigonometry II Cr. 3.
- MA 16500 - Analytic Geometry and Calculus I Cr. 4.
- MA 16600 - Analytic Geometry and Calculus II Cr. 4.
- MA 26100 - Multivariate Calculus Cr. 4.
- PHYS 15200 - Mechanics Cr. 5.
- PHYS 25100 - Heat, Electricity, and Optics Cr. 5.
- PHYS 31000 - Intermediate Mechanics Cr. 4.
- PHYS 32200 - Optics Cr. 3.
- PHYS 34200 - Modern Physics Cr. 3.
- PHYS 34300 - Modern Physics Laboratory Cr. 1.

Total Credits: 62

Physical Science Teaching Certification-Physics

Students who wish to earn physical science teaching certification should complete the requirements for the B.S. with a major in physics teaching with the following adjustments. In addition, the Praxis II Specialty Area Exam in both physics and chemistry must be completed before or during the student teaching semester, normally in your senior year.

- Will reason about physically significant problems conceptually and mathematically
- Will solve complex physical problems using sophisticated mathematical techniques
- Will interpret mathematical solutions conceptually and physically
- Will use computation and computer modeling to investigate physical phenomena and solve physical problems
- Will communicate in appropriate scientific media and forms
- Will be aware of student conceptual difficulties in learning physics
- Will be aware of effective teaching techniques for physics
- Will be aware of appropriate physics laboratory methods
- Will be aware of effective teaching techniques for chemistry
- Will be aware of appropriate chemistry laboratory methods

Core and Concentration (Major) Courses (Credits: 35)

- PHYS 15200 - Mechanics Cr. 5.
- PHYS 25100 - Heat, Electricity, and Optics Cr. 5.
- PHYS 31000 - Intermediate Mechanics Cr. 4.
- PHYS 32200 - Optics Cr. 3.
- PHYS 33000 - Intermediate Electricity and Magnetism Cr. 3.

- PHYS 33100 - Electricity and Magnetism II Cr. 3.
- PHYS 34200 - Modern Physics Cr. 3.
- PHYS 34300 - Modern Physics Laboratory Cr. 1.
- PHYS 34500 - Optics Laboratory I Cr. 1.
- PHYS 34600 - Advanced Laboratory I Cr. 1.
- PHYS 51500 - Thermal and Statistical Physics Cr. 3.
- PHYS 55000 - Introduction to Quantum Mechanics Cr. 3.

Supporting Courses (Credits: 44)

- CHM 11500 - General Chemistry Cr. 4.
- CHM 11600 - General Chemistry Cr. 4.
- CHM 25400 - Organic Chemistry Laboratory Cr. 1.
- CHM 25500 - Organic Chemistry Cr. 3.
- CHM 25600 - Organic Chemistry Cr. 3.
- CHM 25800 - Organic Chemistry Laboratory Cr. 1.
- CHM 32100 - Analytical Chemistry I Cr. 4.
- MA 15300 - Algebra and Trigonometry I Cr. 3.
- MA 15400 - Algebra and Trigonometry II Cr. 3.
- MA 16500 - Analytic Geometry and Calculus I Cr. 4.
- MA 16600 - Analytic Geometry and Calculus II Cr. 4.
- MA 26100 - Multivariate Calculus Cr. 4.
- MA 35100 - Elementary Linear Algebra Cr. 3.
- MA 36300 - Differential Equations Cr. 3.

Political Science (Social Studies) Teacher Certification

You may be certified as a teacher of social studies after fulfilling all requirements for the B.A. with a major in political science and all requirements for teacher certification. Full information on teacher certification requirements is available from the School of Education.

Prior to your junior year, the School of Education requires that you successfully complete EDUA F300, EDUC W200/M101, and EDUC K201 and the Pre-Professional Skills Test (PPST) before admission to the teacher education program. The PRAXIS II Specialty Area Exam must be completed before or during the student-teaching semester, normally in your senior year.

Notes

Neither Y398 (Internship in Urban Institutions) not Y482 (Practicum) may count for more 6 credits for the major; these two courses together may not count for more than 9 credits for the major.

Secondary Education Teaching Minor

Program: Minor
Department of Educational Studies
School of Education

In addition to the content area teaching majors, students can also obtain a teaching minor in one or more of the following areas:

Chemistry Teaching Minor (35 credits)

- CHM 11500 - General Chemistry Cr. 4.
- CHM 11600 - General Chemistry Cr. 4.
- CHM 21800 - Introduction to Inorganic Chemistry Cr. 3.
- CHM 22400 - Introductory Quantitative Analysis Cr. 4.
- CHM 25400 - Organic Chemistry Laboratory Cr. 1.
- CHM 25500 - Organic Chemistry Cr. 3.
- CHM 25600 - Organic Chemistry Cr. 3.
- CHM 25800 - Organic Chemistry Laboratory Cr. 1.
- CHM 37100 - Physical Chemistry Cr. 3.
- EDUC Q400 - Man and Environment: Instructional Methods Cr. 3.
- MA 15300 - Algebra and Trigonometry I Cr. 3.
- MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.

Earth and Space Science Teaching Minor (27–28 credits)

- AST A100 - The Solar System Cr. 3.
- CHM 11500 - General Chemistry Cr. 4.
- EDUC Q400 - Man and Environment: Instructional Methods Cr. 3.
- GEOL G221 - Introductory Mineralogy Cr. 3-4.
  Credits: 3
- GEOL G222 - Introduction to Petrology Cr. 3-4.
- GEOL G420 - Regional Geology Field Trip Cr. 1-2.
  Credits: 2

One of the following: Credits: 3-4

- GEOG G107 - Physical Systems of the Environment Cr. 3.
- GEOL G100 - General Geology Cr. 3-5.
- GEOL G103 - Earth Science: Materials and Processes Cr. 3.
- GEOL L100 - General Geology Laboratory Cr. 1-2.

One of the following: Credits: 3

- GEOL G104 - Earth Science: Evolution of the Earth Cr. 3.
- GEOL G211 - Introduction to Paleobiology Cr. 3.

One of the following: Credits: 3

- GEOG G315 - Environmental Conservation Cr. 3.

- GEOL G300 - Environmental and Urban Geology Cr. 3.
- GEOL G415 - Geomorphology Cr. 3-4.

French Teaching Minor (34 credits)

- FREN F3xx-4xx - Language elective (300–400 level) Credits: 3
- FREN F3xx-4xx - Literature elective (300–400 level) Credits: 3
- FREN F216 - Second-Year French Conversation Credits: 2

- FREN F111 - Elementary French I Cr. 4.
- FREN F112 - Elementary French II Cr. 4.
- FREN F203 - Second-Year French I Cr. 3.
- FREN F204 - Second-Year French II Cr. 3.
- FREN F213 - Second-Year French Composition Cr. 3.
- FREN F317 - French Language Skills I Cr. 3.
- FREN F318 - French Language Skills II Cr. 3.
- FREN F325 - Oral French for Teachers Cr. 3-8.

One of the following: Credits: 3

- FREN F463 - Civilisation Francaise I Cr. 3.
- FREN F464 - Civilisation Francaise II Cr. 3.

German Teaching Minor (32 credits)

- GER G3xx-4xxElectives (300–400 level) Credits: 9
- GER G111 - Elementary German I Cr. 4.
- GER G112 - Elementary German II Cr. 4.
- GER G203 - Second-Year German I Cr. 3.
- GER G204 - Second-Year German II Cr. 3.
- GER G318 - German Language Skills I Cr. 3-5.
- GER G325 - German for Teachers Cr. 3.
- GER G463 - German Culture Cr. 3.
- GER G464 - Kultur Und Gesellschaft Cr. 3.

One of the following: Credits: 3

- GER G3xx-4xxElectives (300–400 level) Credits: 9
- GER G362 - Introduction to Contemporary Germany Cr. 3.
- GER G363 - Deutsche Kulturgeschichte Cr. 3.

Language Arts (English) Teaching Minor (24 credits)

- British literature elective Credits: 3

- American literature elective Credits: 3

- EDUC X401 - Critical Reading in the Content Area Cr. 1-3.
- ENG L391 - Literature for Young Adults Cr. 3.

One of the following: Credits: 3

- ENG L101 - Western World Masterpieces I: Ancient to Renaissance Cr. 3.
- ENG L102 - Western World Masterpieces II: Renaissance to Modern Cr. 3.

One of the following: Credits: 3

- ENG L202 - Literary Interpretation Cr. 3.
- ENG W233 - Intermediate Expository Writing Cr. 3.

One of the following: Credits: 3

- COM 25000 - Mass Communication and Society Cr. 3.
- JOUR C200 - Mass Communications Cr. 3.

One of the following: Credits: 3

- ENG G205 - Introduction to the English Language Cr. 3.
- ENG G206 - Introduction to the Study of Grammar Cr. 3.
- LING L103 - Introduction to the Study of Language Cr. 3.

Life Science (Biology) Teaching Minor (29 credits)

- BIOL 11700 - Principles of Ecology and Evolution Cr. 4.
- BIOL 11900 - Principles of Structure and Function Cr. 4.
- BIOL 21700 - Intermediate Ecology Cr. 3.
- BIOL 21800 - Genetics and Molecular Biology Cr. 4.
- BIOL 21900 - Principles of Functional Biology Cr. 4.
- CHM 11500 - General Chemistry Cr. 4.
- CHM 11600 - General Chemistry Cr. 4.
- EDUC Q400 - Man and Environment: Instructional Methods Cr. 3.

Mathematics Teaching Minor (32 credits)

- MA 15300 - Algebra and Trigonometry I Cr. 3.
- MA 15400 - Algebra and Trigonometry II Cr. 3.
- MA 16500 - Analytic Geometry and Calculus I Cr. 4.
- MA 16600 - Analytic Geometry and Calculus II Cr. 4.
- MA 17500 - Introductory Discrete Mathematics Cr. 3.
- MA 30500 - Foundations of Higher Mathematics Cr. 3.
- MA 35100 - Elementary Linear Algebra Cr. 3.
- MA 56000 - Fundamental Concepts of Geometry Cr. 3.

One of the following: Credits: 3

- CS 16000 - Introduction to Computer Science I Cr. 4.
- MA 45300 - Elements of Algebra Cr. 3.
- MA 57500 - Graph Theory Cr. 3.

One of the following: Credits: 3

- STAT 51100 - Statistical Methods Cr. 3.
- STAT 51600 - Basic Probability and Applications Cr. 3.

Physical Science Teaching Minor (62 credits)

(This subject area can be used as a minor teaching area or as a certification-only teaching major.)

- CHM 11500 - General Chemistry Cr. 4.
- CHM 11600 - General Chemistry Cr. 4.
- CHM 22400 - Introductory Quantitative Analysis Cr. 4.
- CHM 25400 - Organic Chemistry Laboratory Cr. 1.
- CHM 25500 - Organic Chemistry Cr. 3.
- CHM 25600 - Organic Chemistry Cr. 3.
- CHM 25800 - Organic Chemistry Laboratory Cr. 1.
- EDUC Q400 - Man and Environment: Instructional Methods Cr. 3.
- MA 15300 - Algebra and Trigonometry I Cr. 3.
- MA 15400 - Algebra and Trigonometry II Cr. 3.
- MA 16500 - Analytic Geometry and Calculus I Cr. 4.
- MA 16600 - Analytic Geometry and Calculus II Cr. 4.
- MA 26100 - Multivariate Calculus Cr. 4.
- PHYS 15200 - Mechanics Cr. 5.
- PHYS 25100 - Heat, Electricity, and Optics Cr. 5.
- PHYS 31000 - Intermediate Mechanics Cr. 4.
- PHYS 32200 - Optics Cr. 3.
- PHYS 34200 - Modern Physics Cr. 3.
- PHYS 34300 - Modern Physics Laboratory Cr. 1.

Physics Teaching Minor (46 credits)

- MA 262 - Linear Algebra and Differential Equations Credits: 4
- EDUC Q400 - Man and Environment: Instructional Methods Cr. 3.
- MA 15300 - Algebra and Trigonometry I Cr. 3.
- MA 15400 - Algebra and Trigonometry II Cr. 3.
- MA 16500 - Analytic Geometry and Calculus I Cr. 4.
- MA 16600 - Analytic Geometry and Calculus II Cr. 4.
- MA 26100 - Multivariate Calculus Cr. 4.
- PHYS 15200 - Mechanics Cr. 5.
- PHYS 25100 - Heat, Electricity, and Optics Cr. 5.

- PHYS 31000 - Intermediate Mechanics Cr. 4.
- PHYS 33000 - Intermediate Electricity and Magnetism Cr. 3.
- PHYS 34200 - Modern Physics Cr. 3.
- PHYS 34300 - Modern Physics Laboratory Cr. 1.

Spanish Teaching Minor (38 credits)

- SPAN S111 - Elementary Spanish I Cr. 4.
- SPAN S112 - Elementary Spanish II Cr. 4.
- SPAN S203 - Second-Year Spanish I Cr. 3.
- SPAN S204 - Second-Year Spanish II Cr. 3.
- SPAN S275 - Hispanic Culture and Conversation Cr. 3.
- SPAN S301 - The Hispanic World I Cr. 3.
- SPAN S302 - The Hispanic World II Cr. 3.
- SPAN S311 - Spanish Grammar Cr. 3.
- SPAN S312 - Written Composition in Spanish Cr. 3.
- SPAN S317 - Spanish Conversation and Diction Cr. 3.
- SPAN S488 - Spanish for Teachers Cr. 3.

One of the following: Credits: 3

- SPAN S411 - Spain: The Cultural Context Cr. 3.
- SPAN S412 - Spanish America: The Cultural Context Cr. 3.
- SPAN S413 - Hispanic Culture in the U.S. Cr. 3.

Theatre Teaching Minor (24 credits)

- THTR electives Credits: 6
- THTR 13400 - Fundamentals of Performance Cr. 3.
- THTR 13800 - Acting I Cr. 3.
- THTR 20100 - Theatre Appreciation Cr. 3.
- THTR 26100 - Introduction to Theatrical Design Cr. 3.
- THTR 28400 - Textual Analysis Cr. 3.

One of the following: Credits: 3

- THTR 47000 - Theatre and Society I Cr. 3.
- THTR 47100 - Theatre and Society II Cr. 3.

Sociology (Social Studies) Teacher Certification

You may be certified as a teacher of social studies after fulfilling all requirements for the B.a. with a major in sociology and all requirements for teacher certification. Full information on teacher-certification requirements is available from the School of Education.

Prior to your junior year, the School of Education requires that you successfully complete EDUA F300, EDUC W200/M101, and EDUC K201 and the Pre-Professional Skills Test (PPST) before admission to the teacher education program. The PRAXIS II specialty Area Exam must be completed before or during the student-teaching semester, normally in your senior year.

Theatre Teaching Minor

Program: Minor
Department of Theatre
College of Visual and Performing Arts

Williams Theatre 128 ~ 260-481-6551 ~ www.ipfw.edu/vpa/theatre

A theatre-teaching minor may be earned by completing the following courses and earning a grade of C or better in each required theatre course:

Program Requirements

- Additional theatre course Credits: 6
- THTR 13400 - Fundamentals of Performance Cr. 3.
- THTR 13800 - Acting I Cr. 3.
- THTR 20100 - Theatre Appreciation Cr. 3.
- THTR 26100 - Introduction to Theatrical Design Cr. 3.
- THTR 28400 - Textual Analysis Cr. 3.

One of the following:

- THTR 47000 - Theatre and Society I Cr. 3.
- THTR 47100 - Theatre and Society II Cr. 3.

Total Credits: 24

Transfer Program

Agriculture (A.S.)

Program: Transfer Program
College of Arts and Sciences

Science Building G56 ~ 260-481-6304

At IPFW, you can complete the first two years of most of the 47 Bachelor of Science programs in agriculture and forestry, the two-year preveterinary program, up to two semesters of the forestry and natural resources programs, two semesters of the preagricultural and biological engineering program, and three semesters of an associate degree program in agriculture. All agriculture degrees must be completed at the West Lafayette campus of Purdue University. The forestry and natural resources and preveterinary programs are listed alphabetically later in this part of the *Bulletin.*

All degree programs in agriculture provide balanced curricula in computer science, mathematics, physical sciences, biological sciences, communication, social sciences, humanities, international understanding or emphasis, and business, plus technical preparation in the selected area of specialization. These programs recognize the need for graduates who are prepared to function effectively in the highly technical world of modern agriculture.

The Purdue University School of Agriculture is one of the nation's highest-ranked and most-prestigious institutions of agricultural teaching, research, extension, and international programs. The West Lafayette faculty annually prepares more than 2,000 undergraduate and 500 graduate students for careers in the world's food production and distribution systems.

The IPFW agriculture program coordinator will assist you with processing intercampus transfer forms and with arranging affiliation with the appropriate West Lafayette counseling coordinator for the degree program selected. For a listing of degree programs available and additional details about all programs, you should obtain a current Bulletin of the School of Agriculture from the IPFW agriculture dean's program coordinator.

The partial requirements stated below can be completed at IPFW and apply in most B.S. programs in agriculture. Because of professional objectives and accreditation requirements, significant variations exist in some programs such as agricultural and biological engineering, biochemistry, forestry and natural resources, and landscape architecture. Students selecting these options may be able to complete only one or two semesters at IPFW.

It is highly recommended that you keep in contact with the agriculture program coordinator to remain up to date on any changes in the course requirements and to make sure that the requirements of your particular major are being met.

The associate degree with a major in agriculture, which requires at least one semester of full-time study at the West Lafayette campus,helps students who must withdraw before they can finish a Bachelor of Science. You may take, at most, three semesters at IPFW. You may begin with the general course work for agriculture, preforestry, or preveterinary medicine. Within the program, you must complete a specialization in one of the following areas: agricultural economics, agricultural systems management, agronomy, animal sciences, general agriculture, or horticulture. You work out the details of your career (final) semester with the West Lafayette advisor for the specialization you select; it is desirable to establish contact with this advisor before your final semester at IPFW.

To receive the associate degree, you must:

1. Complete at least half the credits for the Bachelor of Science for your declared option (64–65 credits).
2. Earn a minimum graduation GPA of 2.00 or higher.
3. Limit the number of elective credits taken under the pass/not-pass option to 12.
4. Meet the minimum requirements listed below. For course selection at IPFW and assistance with transferring to the West Lafayette campus, you should see the agriculture program coordinator at IPFW.

The assumption is that you will begin with courses that apply to the requirements for general agriculture, preforestry, or preveterinary medicine described in this Bulletin, but if you later choose the A.S. alternative, you must meet the following minimum requirements:

Mathematics and Basic Sciences

- Credits in calculus or statistics Credits: 3
- Credits in other mathematics and basic sciences Credits: 12

Written and Oral Communication

- Credits in written communication Credits: 6

- Credits in oral communication Credits: 3

Broadening Electives

- Credits in economics Credits: 3
- Credits in humanities or social sciences Credits: 3

Departmental Requirements and Electives

- Credits in departmental requirements and electives, at least 18 of which must be earned in School of Agriculture courses Credits: 35

Total Credits: 65

Agriculture (B.S.)

Program: Transfer Programs
College of Arts and Sciences

Science Building G56 ~ 260-481-6304

At IPFW, you can complete the first two years of most of the 47 Bachelor of Science programs in agriculture and forestry, the two-year preveterinary program, up to two semesters of the forestry and natural resources programs, two semesters of the preagricultural and biological engineering program, and three semesters of an associate degree program in agriculture. All agriculture degrees must be completed at the West Lafayette campus of Purdue University. The forestry and natural resources and preveterinary programs are listed alphabetically later in this part of the *Bulletin.*

All degree programs in agriculture provide balanced curricula in computer science, mathematics, physical sciences, biological sciences, communication, social sciences, humanities, international understanding or emphasis, and business, plus technical preparation in the selected area of specialization. These programs recognize the need for graduates who are prepared to function effectively in the highly technical world of modern agriculture.

The Purdue University School of Agriculture is one of the nation's highest-ranked and most-prestigious institutions of agricultural teaching, research, extension, and international programs. The West Lafayette faculty annually prepares more than 2,000 undergraduate and 500 graduate students for careers in the world's food production and distribution systems.

The IPFW agriculture program coordinator will assist you with processing intercampus transfer forms and with arranging affiliation with the appropriate West Lafayette counseling coordinator for the degree program selected. For a listing of degree programs available and additional details about all programs, you should obtain a current Bulletin of the School of Agriculture from the IPFW agriculture dean's program coordinator.

The partial requirements stated below can be completed at IPFW and apply in most B.S. programs in agriculture. Because of professional objectives and accreditation requirements, significant variations exist in some programs such as agricultural and biological engineering, biochemistry, forestry and natural resources, and landscape architecture. Students selecting these options may be able to complete only one or two semesters at IPFW.

It is highly recommended that you keep in contact with the agriculture program coordinator to remain up to date on any changes in the course requirements and to make sure that the requirements of your particular major are being met.

You may complete the following courses at IPFW:

Mathematics and Basic Sciences

- Credits in computer science Credits: 3
- Additional credits in mathematics and basic science Credits: 5
- AGR 10100 - Introduction to Agriculture and Purdue Cr. 0.5.
- BIOL 10800 - Biology of Plants Cr. 4.
- BIOL 10900 - Biology of Animals Cr. 4.
- CHM 11100 - General Chemistry Cr. 3.
- CHM 11200 - General Chemistry Cr. 3.
- MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.
- STAT 30100 - Elementary Statistical Methods I Cr. 3.

Written and Speech Communication

- Credits in an additional oral or written communication course Credits: 3
- Credits in English composition Credits: 6
- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
- ENG W233 - Intermediate Expository Writing Cr. 3.

Broadening Electives

- Credits from an approved list of international emphasis electives Credits: 0–3
- Credits from the following social sciences: anthropology, economics, education (limited courses), political science, psychology, and sociology Credits: 3–12
- Credits from the following humanities: education (limited courses), English literature (limited courses), foreign language and literatures, history, philosophy, and fine arts Credits: 6–15
- ECON E201 - Introduction to Microeconomics Cr. 3.

Agriculture Courses Offered at IPFW

(See your advisor about appropriate selections.)

- AGR 10100 - Introduction to Agriculture and Purdue Cr. 0.5.
- ANSC 10100 - Animal Agriculture Cr. 3.
- ANSC 22100 - Principles of Animal Nutrition Cr. 3.
- ENTM 20600 - General Applied Entomology Cr. 2.
- ENTM 20700 - General Applied Entomology Laboratory Cr. 1.
- FNR 10300 - Introduction to Environmental Conservation Cr. 3.
- HORT 10100 - Fundamentals of Horticulture Cr. 3.

Consumer and Family Sciences

Program: Transfer Program
College of Health and Human Services

Neff Hall 330 ~ 260-481-6562 ~ www.ipfw.edu/cfs

At IPFW, you may complete approximately two years toward the Bachelor of Science options offered by the College of Consumer and Family Sciences at the West Lafayette campus of Purdue University. Majors are in child development and family studies, consumer and family sciences education, foods and nutrition, and consumer sciences retailing.

These degree programs must be completed at West Lafayette. IPFW also offers a B.S. and an A.S. in hospitality areas (see description later in this section).

The details of your general-education requirements and the courses in your field of specialization are determined by your option selection. For this information, you should review the Bulletin of the Purdue University West Lafayette College of Consumer and Family Sciences, www.cfs.purdue.edu. Consult the IPFW Chair of Consumer and Family Sciences to select the appropriate courses for your B.S. option.

Cytotechnology

Transfer Opportunity to IUPUI
Student Success Center
College of Health and Human Services

Neff Hall 120 ~ 260-481-4187 ~ www.ipfw.edu/hhs/ahtp/programs/cytotechnology.shtml

At IPFW you may complete three years towards the Bachelor of Science in cytotechnology. You must apply and be admitted to the Cytotechnology Program at Indiana University-Purdue University Indianapolis (IUPUI) to complete the degree. Completion of IPFW course work does not guarantee admission to the IUPUI program. Graduates receive their degree from the IU School of Medicine.

Overview - Cytotechnology is a medical laboratory specialty in which microscopic examinations are performed on cell samples from the human body.

Prerequisite Courses – Prior to entering IUPUI's Cytotechnology Program, the student must complete the minimum prerequisites. These prerequisites may be completed at IPFW. Students should consult with an IPFW allied health sciences advisor for appropriate courses and semester sequencing.

Suggested Electives - Biology electives: microbiology, embryology, genetics, animal cell physiology, immunology, and cell biology. With the approval of IUPUI's cytotechnology program director other biology courses may be substituted. Students must earn a total of 25 credit hours in biology, including BIOL 10900 or 11900, BIOL 21500, 21600, and 3 upper level courses that include labs. Other electives: art appreciation, medical terminology, statistics, computer science/technology, supervision (OLS), medical microbiology, biochemistry, endocrinology, parasitology, virology, cytogenetics, organic chemistry, physics, and mathematics.

IUPUI Admission Requirements

Total Number of Prerequisite Credit Hours – 90   These may be completed at IPFW.

Limitations of Course Work - Biology credits earned more than seven years before application must be updated by taking 3 additional credit hours related to cell biology within a period of time not to exceed 12 months before admission. Remedial courses will not fulfill prerequisite hours.

Class Size - Eight each fall semester

Criteria Used for Selection of Class - Cumulative grade point average, biology grade point average, interview

Application Deadline - December 1 of the year prior to desired entry

Minimum Cumulative Grade Point Average - 2.5 on a 4.0 scale. This requirement is applied at the time of program application and must be maintained.

Minimum Specific Grade Point Average – 2.5 on a 4.0 scale for all biology course work. This requirement is applied at the time of program application and must be maintained.

Minimum Grade Requirement in a Stated Prerequisite Course – C (2.0 on a 4.0 scale)

Interview – Qualified applicants must participate in an interview. Interviews are conducted between November and January.

Technical Standards - See IUPUI Health Professions Programs policy.

Clinical Observation/Volunteer Experience - While such experience is not required, it is very helpful in making a career choice.

The details of your prerequisite course work should be discussed with an IPFW allied health sciences advisor. You are also encouraged to consult an advisor at the IUPUI campus to discuss the degree by calling (317)278-4752 or by e-mail at askhpp@iupui.edu. The most current program information is found at http://msa.iusm.iu.edu/hpp/.

At IPFW you may complete the following courses:

- CHM 11500 - General Chemistry Cr. 4.
- CHM 11600 - General Chemistry Cr. 4.
- ENG W131 - Elementary Composition I Cr. 3.
- ENG W233 - Intermediate Expository Writing Cr. 3.

Choose one of the following Credits: 3

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- COM 21200 - Approaches to the Study of Interpersonal Communication Cr. 3.

Choose one of the following Credits: 3-5

- MA 15300 - Algebra and Trigonometry I Cr. 3.
- MA 15900 - Precalculus Cr. 5.
  or higher-level math course

Choose one of the following Credits: 4

- BIOL 10900 - Biology of Animals Cr. 4.
- BIOL 11900 - Principles of Structure and Function Cr. 4.

Choose 3 of the following biology courses with labs Credits: 11-12

- BIOL 21800 - Genetics and Molecular Biology Cr. 4.

- BIOL 31500 - Developmental Anatomy Cr. 4.
- BIOL 33400 - Clinical Pathophysiology Cr. 4.
- BIOL 53700 - Immunobiology Cr. 3.

Or select

Cell Biology lecture and lab

- BIOL 38100 - Cell Biology Cr. 3.
- BIOL 38200 - Laboratory in Cell Biology Cr. 1.

Or select

Animal Physiology lecture and lab

Or select one of the following:

Microbiology

- BIOL 22000 - Microbiology for Allied Health Professionals Cr. 4.
  or
- BIOL 43700 - General Microbiology Cr. 4.

Choose one of the following sequences Credits: 8

- BIOL 20300 - Human Anatomy and Physiology Cr. 4.
  and
- BIOL 20400 - Human Anatomy and Physiology Cr. 4.

Or select:

- BIOL 21500 - Basic Human Anatomy Cr. 4.
  and
- BIOL 21600 - Basic Mammalian Physiology Cr. 4.

Electives:

- Humanities elective: Cr. 3
- Social/Behavioral science electives preferably psychology and sociology: Cr. 6
- General electives to bring total credits to 90
- Total Credits: 90

Forestry and Natural Resources

Program: Transfer Program
College of Arts and Sciences

Science Building G56 ~ 260-481-6304

Admission

At IPFW you may complete credits toward one of the five majors — fisheries and aquatic sciences, forestry, natural resources, wildlife, and wood products manufacturing technology — offered by the Department of Forestry and Natural Resources. You must transfer to Purdue University West Lafayette campus for second-year courses in order to have prerequisites for the summer practicum between the sophomore and junior years. You are encouraged to contact a West Lafayette advisor to confirm course selections. The following courses encompass most of the first-year requirements of these majors.

Program Requirements

- Credits in one of the following humanities and social sciences: anthropology; economics; fine arts, music, and theatre (history and appreciation only); foreign language; history; literature; philosophy; political science; psychology; sociology; speech communication Credits: 6

- AGR 10100 - Introduction to Agriculture and Purdue Cr. 0.5.
- AGRY 255 - Soil Science Cr. 3.
- BIOL 10800 - Biology of Plants Cr. 4.
- BIOL 10900 - Biology of Animals Cr. 4.
- CHM 11100 - General Chemistry Cr. 3.
- CHM 11200 - General Chemistry Cr. 3.
- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ECON E201 - Introduction to Microeconomics Cr. 3.
- FNR 10300 - Introduction to Environmental Conservation Cr. 3.
- MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.
- MA 23000 - Calculus for the Managerial, Social, and Biological Sciences II Cr. 3.
- STAT 30100 - Elementary Statistical Methods I Cr. 3.

Credits in English composition Credits: 6

- ENG W131 - Elementary Composition I Cr. 3.
- ENG W233 - Intermediate Expository Writing Cr. 3.

Total Credits: 48

Health Information Administration

Transfer Opportunity to IUPUI
Student Success Center
College of Health and Human Services

At IPFW you may complete 55 credit hours toward the Bachelor of Science in health information administration. You must be admitted to the Health Information Administration Program at Indiana University-Purdue University Indianapolis (IUPUI) to complete the degree. Completion of IPFW course work does not guarantee admission to the IUPUI program. Graduates receive their degree from the IUPUI School of Informatics.

Overview - Health information professionals play a critical role in maintaining, collecting, interpreting, analyzing and protecting data that healthcare providers rely on for research and delivery of quality care.

Prerequisite Courses - Prior to entering IUPUI's Health Information Administration Program, the student must complete at least 56 prerequisite credit hours. All but six of the total prerequisite hours may be completed at IPFW. Two additional prerequisite courses (CSCI N207 and HIA M300) are taken online through IUPUI. Students should consult with an IPFW allied health sciences advisor for appropriate courses and semester sequencing.

Suggested Electives - General electives as needed to complete 61 credit hours. These electives may include management information systems, supervisory management, methods of employee training, computer sciences, research methods, interpersonal communications, Greek and Latin medical terms, and foreign languages.

IUPUI Admission Requirements

Total Number of Prerequisite Credit Hours – 61   Fifty-five prerequisite hours may be completed at IPFW. Six prerequisite hours are offered online through IUPUI.

Limitations of Course Work - Remedial course work will not qualify as prerequisite credit hours.

Criteria Used for Selection of Class - Completion of prerequisite courses, grade point average, interview

Application Deadline - November 15 of the year prior to desired entry.

Minimum Cumulative Grade Point Average - 2.5 on a 4.0 scale. This requirement is applied at the time of program application and must be maintained. Grades in remedial courses are included in the cumulative grade point average.

Minimum Grade Requirement in a Stated Prerequisite Course - C (2.0 on a 4.0 scale) in anatomy, physiology, computer science, analytic skills/quantitative methods, business administration, and organization/management. Prerequisite courses in anatomy, physiology, computer science, and statistics must be completed prior to enrollment in the program.

Interview - Qualified applicants must participate in an interview.

Clinical Observation/Volunteer Experience - While such experience is not required, it is helpful in making a career choice.

Delivery Options - The professional program is offered via distance learning or classroom delivery.

The details of your prerequisite course work should be discussed with an IPFW allied health sciences advisor. You may also consult an advisor at the IUPUI campus to discuss the degree or delivery options by calling (317)278-7686 or by e-mail at mrondeau@iupui.edu. The most current program information is found at http://informatics.iupui.edu/academics/health.

At IPFW you may complete the following courses:

- BUS A201 - Principles of Financial Accounting Cr. 3.
- BUS W100 - Principles of Business Administration Cr. 3.
- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
- MA 15300 - Algebra and Trigonometry I Cr. 3.
- NUR 10600 - Medical Terminology Cr. 3.

- OLS 26800 - Elements of Law Cr. 3.
- OLS 28000 - Computer Applications for Supervisors Cr. 3.
- ETCS 10600 - Introduction to Computers Cr. 3.

Choose one of the following Credits: 3

- ENG W232 - Introduction to Business Writing Cr. 3.
- ENG W233 - Intermediate Expository Writing Cr. 3.
- ENG W234 - Technical Report Writing Cr. 3.
- ENG W331 - Business and Administrative Writing Cr. 3.

Choose one of the following Credits: 3

- PSY 20100 - Introduction to Statistics in Psychology Cr. 3.
- SPEA K300 - Statistical Techniques Cr. 3.
- STAT 24000 - Statistical Methods for Biology Cr. 3.
- STAT 30100 - Elementary Statistical Methods I Cr. 3.

One of the following sequences Credits: 8

- BIOL 20300 - Human Anatomy and Physiology Cr. 4.
  and
- BIOL 20400 - Human Anatomy and Physiology Cr. 4.

Or select:

- BIOL 21500 - Basic Human Anatomy Cr. 4.
  and
- BIOL 21600 - Basic Mammalian Physiology Cr. 4.

Choose one of the following Credits: 3

- PHIL 11100 - Ethics Cr. 3.
- PHIL 31200 - Medical Ethics Cr. 3.
- PHIL 32600 - Business Ethics Cr. 3.

Choose one of the following Credits: 3

- OLS 25200 - Human Relations in Organizations Cr. 3.
- OLS 27400 - Applied Leadership Cr. 3.
- SPEA H371 - Human Resource Management in Healthcare Facilities Cr. 3.

Choose one of the following Credits: 3

- CS 30600 - Computers in Society Cr. 3.

- PSY 12000 - Elementary Psychology Cr. 3.
- SOC S161 - Principles of Sociology Cr. 3.
- SOC S163 - Social Problems Cr. 3.

Electives Credits: 5

- Humanities elective: Cr. 3
- General elective: Cr. 2

Total Credits: 55

Two additional prerequisites for this program available online through IUPUI:

- CSCI N207 - Data Analysis Using Spreadsheets Cr. 3
- HIA M300 - Database Design for HIA Cr. 3

Journalism Transfer Program

Program: Transfer Program
College of Arts and Sciences

Neff Hall 343 ~ 260-481-6685 ~ *www.ipfw.edu/jour/*

At IPFW, you may complete two years of course work toward the Bachelor of Arts offered by the Indiana University School of Journalism at both the Bloomington and Indianapolis campuses. While at IPFW, you may take courses in the fundamental-skills requirements in writing, mathematics, and foreign language; distribution requirements in arts and humanities, natural and mathematical sciences, and social and behavioral sciences; and a maximum of 12 credits in journalism core courses or electives.

Program Requirements

- JOUR J200 - Reporting, Writing and Editing I Cr. 3.
- JOUR J210 - Visual Communication Cr. 3.
- JOUR J300 - Communications Law Cr. 3.

One of following Credits: 3

- JOUR C200 - Mass Communications Cr. 3.
- JOUR J110 - Foundations of Journalism and Mass Communication Cr. 3.

Total Credits: 12

Notes

Internships and special course approvals are arranged through the IPFW journalism coordinator. Scholarships are available for declared journalism majors for the freshman year at IPFW and for subsequent years throughout the IU system. Applications are available in January.

For further information about journalism requirements and opportunities at IPFW, consult the *Bulletin* of the IU School of Journalism and course descriptions appearing in this *Bulletin*.

Medical Imaging Technology

Transfer Opportunity to IUPUI
Student Success Center
College of Health and Human Services

Neff Hall 120 ~ 260-481-4187 ~ www.ipfw.edu/hhs/ahtp/programs/medical.shtml

At IPFW you may complete all but 32 credit hours toward the Bachelor of Science in medical imaging technology. You must apply and be admitted to the Medical Imaging Technology Program at Indiana University-Purdue University Indianapolis (IUPUI) to complete the degree. Completion of IPFW course work does not guarantee admission to the IUPUI program. Graduates receive their degree from the IU School of Medicine.

Overview - A medical imaging technologist is a skilled radiographer qualified to provide patient service in interventional procedures, computed tomography, magnetic resonance imaging, or ultrasonography.

Prerequisite Courses – Prior to entering IUPUI's Medical Imaging Technology Program, the student must complete the minimum prerequisites, including an Associate of Science in radiography or its equivalent. These prerequisites may be completed at IPFW. Students should consult with an IPFW allied health sciences advisor for appropriate courses and semester sequencing.

Radiography - Students who earn an Associate of Science in radiography through IPFW will graduate with 60 credit hours in radiography. IUPUI allows entry to the medical imaging technology program with a minimum of 40 college credit hours in radiography.

Suggested Electives– Students must earn a total of 15 credit hours in physical and biological sciences. To complete a minimum of 122 credit hours of academic work for graduation, additional electives may be required.

IUPUI Admission Requirements

Class Size - Based on the availability of clinical education sites for each major area.

Criteria Used for Selection of Class - Evidence of registration by the American Registry of Radiologic Technologists (ARRT), cumulative GPA weighted 40%, radiologic technology GPA weighted 20%, clinical radiologic technology GPA weighted 20%, science/math GPA weighted 20%.

Application Deadline - November 15 of the year prior to desired entry.

Minimum Cumulative Grade Point Average - 2.8 on a 4.0 scale at the time of application. Grades from all college courses taken, including remedial courses and courses that do not meet prerequisite requirements, are considered when calculating the minimum cumulative grade point average.

Minimum Specific Grade Point Average – 3.0 on a 4.0 scale for all radiologic technology course work. 2.5 on a 4.0 scale for all physical and biological sciences.

Minimum Grade Requirement in a Stated Prerequisite Course - C (2.0 on a 4.0 scale)

Technical Standards - See IUPUI Health Professions Programs policy.

Interview - An interview is not required.

The details of your prerequisite course work should be discussed with an IPFW allied health sciences advisor. You are also encouraged to consult with an advisor at the IUPUI campus to discuss the degree by calling (317)278-4752 or by e-mail at askhpp@iupui.edu. The most current program information is found at http://msa.iusm.iu.edu/hpp/.

At IPFW you may complete the following courses:

- ENG W131 - Elementary Composition I Cr. 3.
- ENG W233 - Intermediate Expository Writing Cr. 3.
- PSY 12000 - Elementary Psychology Cr. 3.

Choose one of the following Credits: 3

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- COM 21200 - Approaches to the Study of Interpersonal Communication Cr. 3.

Choose one of the following Credits: 3

- MA 15300 - Algebra and Trigonometry I Cr. 3.
- MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.

Choose one of the following Credits: 3

- STAT 30100 - Elementary Statistical Methods I Cr. 3.
- PSY 20100 - Introduction to Statistics in Psychology Cr. 3.

Choose one of the following Credits: 3-4

- CHM 11100 - General Chemistry Cr. 3.
- CHM 11500 - General Chemistry Cr. 4.

Choose one of the following Credits: 1

Consult your advisor about satisfying this requirement.

- AHLT R185 - Medical Terminology Cr. 1.
- BIOL 10500 - Medical Terminology Cr. 1.

Choose one of the following Credits: 4-5

- PHYS 20100 - General Physics I Cr. 5.
- PHYS 21800 - General Physics Cr. 4.
- PHYS 22000 - General Physics Cr. 4.

Choose one of the following sequences Credits: 8

- BIOL 20300 - Human Anatomy and Physiology Cr. 4.
  and
- BIOL 20400 - Human Anatomy and Physiology Cr. 4.

Or select:

- BIOL 21500 - Basic Human Anatomy Cr. 4.
  and
- BIOL 21600 - Basic Mammalian Physiology Cr. 4.

Electives To Be Taken Prior To Graduation Credits: 6

- Humanities elective: Cr. 3
- Social/Behavioral Science elective: Cr. 3

Radiography Professional Program Credits: 60

Total Credits: 93-102

Nuclear Medicine

Transfer Opportunity to IUPUI
Student Success Center
College of Health and Human Services

Neff Hall 120 ~ 260-481-4187 ~ www.ipfw.edu/hhs/ahtp/programs/nuclear.shtml

At IPFW you may complete two years toward the Bachelor of Science in nuclear medicine technology. You must apply and be admitted to the Nuclear Medicine Technology Program at Indiana University-Purdue University Indianapolis (IUPUI) to complete the degree. Completion of IPFW course work does not guarantee admission to the IUPUI program. Graduates receive their degree from the IU School of Medicine.

Overview - Nuclear medicine is a medical specialty in which the nuclear properties of radioactive materials are used for diagnosis and treatment of disease.

Prerequisite Courses – Prior to entering IUPUI's Nuclear Medicine Technology Program, the student must complete the minimum prerequisites. These prerequisites may be completed at IPFW. Students should consult with an IPFW allied health sciences advisor for appropriate courses and semester sequencing.

Suggested Electives - Math/science elective: natural, mathematical or computer science, first aid, nature of cancer, and nutrition. IUPUI allows students to replace MA 15300 and MA 15400 with four credit hours of advanced calculus. Students must earn a total of 20 credit hours in physical and biological sciences.

IUPUI Admission Requirements

Total Number of Prerequisite Credit Hours – 60   These may be completed at IPFW.

Class size - Seven each summer session II (late June).

Criteria Used for Selection of Class - Cumulative grade point average, mathematics and science grade point average, interview.

Application Deadline - November 15 of the year prior to desired entry.

Minimum Cumulative Grade Point Average - 2.8 on a 4.0 scale. This requirement is applied at the time of program application and must be maintained. The grades from all college courses taken, including remedial courses and courses that do not meet prerequisite requirements, are considered when calculating the minimum cumulative grade point average.

Minimum Specific Grade Point Average - 2.5 on a 4.0 scale for life and physical science course work. This requirement is applied at the time of program application and must be maintained. The grades from all college life and physical sciences courses taken, including remedial courses and courses that do not meet prerequisite requirements, are considered when calculating the minimum specific grade point average.

Minimum Grade Requirement in a Stated Prerequisite Course - C (2.0 on a 4.0 scale) or a composite grade for a two-course lecture/lab sequence.

Technical Standards - See IUPUI Health Professions Programs policy.

Interview - Qualified applicants must participate in an interview. Interviews are conducted in January or early February.

Clinical Observation - Applicants must observe in a nuclear medicine facility before the admission interview.

Additional Application Requirement - Applicant must complete and submit a Pre-Interview Questionnaire.

The details of your prerequisite course work should be discussed with an IPFW allied health sciences advisor. You are also encouraged to consult an advisor at the IUPUI campus to discuss the degree by calling (317)278-4752 or by e-mail at askhpp@iupui.edu. The most current program information is found at http://msa.iusm.iu.edu/hpp/.

At IPFW you may complete the following courses:

- BIOL 10500 - Medical Terminology Cr. 1.
- ENG W131 - Elementary Composition I Cr. 3.
- ENG W233 - Intermediate Expository Writing Cr. 3.
- PSY 12000 - Elementary Psychology Cr. 3.
- ETCS 10600 - Introduction to Computers Cr. 3.

Choose one of the following Credits: 3

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- COM 21200 - Approaches to the Study of Interpersonal Communication Cr. 3.

Choose one of the following Credits: 5-6

- MA 15900 - Precalculus Cr. 5.

Or select:

- MA 15300 - Algebra and Trigonometry I Cr. 3.
  and
- MA 15400 - Algebra and Trigonometry II Cr. 3.

Choose one of the following sequences Credits: 8

- BIOL 20300 - Human Anatomy and Physiology Cr. 4.
  and
- BIOL 20400 - Human Anatomy and Physiology Cr. 4.

Or select:

- BIOL 21500 - Basic Human Anatomy Cr. 4.
  and
- BIOL 21600 - Basic Mammalian Physiology Cr. 4.

Choose one of the following sequences Credits: 6-8

- CHM 11100 - General Chemistry Cr. 3.
  and
- CHM 11200 - General Chemistry Cr. 3.

Or select:

- CHM 11500 - General Chemistry Cr. 4.
  and
- CHM 11600 - General Chemistry Cr. 4.

Choose one of the following Credits: 3

- STAT 30100 - Elementary Statistical Methods I Cr. 3.
- PSY 20100 - Introduction to Statistics in Psychology Cr. 3.

Choose one of the following Credits: 3-5

- PHYS 13100 - Concepts in Physics I Cr. 3.
- PHYS 20100 - General Physics I Cr. 5.
- PHYS 21800 - General Physics Cr. 4.
- PHYS 22000 - General Physics Cr. 4.

Electives:

- Humanities elective Cr. 3
- Social/Behavioral science elective Cr. 3
- Electives to bring total credits in physical and biological science to a minimum of 20

- General electives to bring total credits to 60

- ## Total Credits: 60

Occupational Therapy

Transfer Opportunity to IUPUI
Student Success Center
College of Health and Human Services

Neff Hall 120 ~ 260-481-4187 ~ http://www.ipfw.edu/hhs/ahtp/programs/occupational.shtml

The entry-to-practice degree for the occupational therapy profession is now the Master of Science in occupational therapy, a graduate degree. A baccalaureate degree is required to gain entry to the program. At IPFW you may earn any baccalaureate degree and then apply to the Occupational Therapy Program offered by the School of Health and Rehabilitation Sciences at Indiana University-Purdue University Indianapolis (IUPUI). Completion of a baccalaureate degree and prerequisites does not guarantee admission to the IUPUI program.

Overview - Occupational therapy is the health and rehabilitation profession that focuses on maximizing a person's ability to participate in life independently.

Prerequisite Courses - Prior to entering IUPUI's Occupational Therapy Program, students must complete specific prerequisite courses in addition to earning a baccalaureate degree. These prerequisites may be completed at IPFW. Students should consult with an IPFW allied health sciences advisor for appropriate courses and semester sequencing.

IUPUI Admission Requirements

Limitations on Course Work - Anatomy, physiology, and statistics prerequisites must be taken within seven years of entry.

Class size - 36

Criteria Used for Selection of Class - Cumulative grade point average (GPA) weighted 40%, prerequisite course work GPA weighted 60%. The total scores are then ranked.

Application Deadline - Applications are available online through IUPUI's occupational therapy website. Applications are accepted from August 1st through January 20th annually and are due in January of the year of desired entry. Program begins Summer Session II (late June).

Minimum Cumulative Grade Point Average - 3.0 on a 4.0 scale.

Minimum Prerequisite Grade Point Average - 3.0 on a 4.0 scale.

Minimum Grade Requirement in a Stated Prerequisite Course - C (2.0 on a 4.0 scale)

Application Policy - For applicants for whom English is not their native language, a minimum TOEFL score of 550 is required.

Technical Standards - Students are required to meet technical standards established by the School of Health and Rehabilitation Sciences. These standards are available from IUPUI upon request.

Clinical Observation - Students must observe occupational therapy practice in three settings for a total of 12 hours and present evidence of this experience. Therapists are often willing to let students observe or "shadow" them, but volunteering also meets this requirement. Students may obtain observation or volunteer hours at any facility that offers occupational therapy.

The details of your prerequisite course work should be discussed with an IPFW allied health sciences advisor. You are also encouraged to consult an advisor at the IUPUI campus to discuss the degree. Contact: Student Enrollment Services

Coordinator for the School of Health and Rehabilitation Sciences by calling (317)274-7238. The most current program information is found at http://www.shrs.iupui.edu/occupational_therapy/.

Your undergraduate program must include the following:

At IPFW you may complete the following courses:

At IPFW you may complete a prerequisite baccalaureate degree (see above) and must also complete the following courses:

- PSY 35000 - Abnormal Psychology Cr. 3.
- PSY 36900 - Development Across the Lifespan Cr. 3.

Choose one of the following Credits: 3

- ECON E270 - Introduction to Statistical Theory in Economics and Business I Cr. 3.
- PSY 20100 - Introduction to Statistics in Psychology Cr. 3.
- SOC S351 - Social Statistics Cr. 3.
- SPEA K300 - Statistical Techniques Cr. 3.
- STAT 30100 - Elementary Statistical Methods I Cr. 3.

Choose one of the following Credits: 1-3

- BIOL 10500 - Medical Terminology Cr. 1.
- NUR 10600 - Medical Terminology Cr. 3.

Choose one of the following sequences Credits: 8

- BIOL 20300 - Human Anatomy and Physiology Cr. 4.
  and
- BIOL 20400 - Human Anatomy and Physiology Cr. 4.

Or select

- BIOL 21500 - Basic Human Anatomy Cr. 4.
  and
- BIOL 21600 - Basic Mammalian Physiology Cr. 4.

Total Credits: 18-20

Paramedic Sciences

Transfer Opportunity to IUPUI
Student Success Center
College of Health and Human Services

At IPFW you may complete one year toward the Associate of Science in paramedic science. You must apply and be admitted to the Paramedic Science Program at Indiana University-Purdue University Indianapolis (IUPUI) to complete the degree. Completion of IPFW course work does not guarantee admission to the IUPUI program. Graduates receive their degree from the IU School of Medicine.

Overview - Paramedics provide care to emergency patients in pre-hospital settings. They determine the nature and extent of victims' emergencies, immobilize fractures, supply intravenous therapy, and provide other life-saving interventions for the victims of acute illness or injury.

Prerequisite Courses – Prior to entering IUPUI's Paramedic Science Program, the student must complete the minimum prerequisites. Exclusive of emergency medical technologist (EMT) training, these prerequisites may be completed at IPFW. Students should consult with an IPFW allied health sciences advisor for appropriate courses and semester sequencing.

IUPUI Admission Requirements

Total Number of Prerequisite Credit Hours Exclusive of EMT Training - 23   These may be completed at IPFW. Twenty credit hours of prerequisites must be completed prior to entrance.

Limitations of Course Work - Remedial courses will not fulfill prerequisites or count as credit hours toward the degree.

Class Size - Ten students per cohort entering either spring or fall semester.

Criteria Used for Selection of Class - Grade point average, personal interview, EMT experience.

Application Deadline - October 1 of the year prior to desired spring semester entry. February 1 prior to desired fall semester entry.

Minimum Cumulative Grade Point Average - 2.3 on a 4.0 scale. This requirement is applied at the time of program application and must be maintained.

Minimum Grade Requirement in a Stated Prerequisite Course - C (2.0 on a 4.0 scale)

Certification Requirement - You must be an Indiana or nationally certified EMT with at least 20 hours of documented patient contact in an ambulance to apply to the program.

To Become an Emergency Medical Technologist - Take the EMT Basic Training (7.5 credit) course through Ivy Tech and pass the EMT credentialing exam or complete an EMT course through one of the many local hospitals or township fire departments and pass the EMT credentialing exam. For any questions regarding EMT course work at Ivy Tech Fort Wayne Campus, contact the Ivy Tech EMT Program Chair at (260)480-2087.

Technical Standards - See IUPUI Health Professions Programs policy.

Medical Requirements – All students are required to provide a current immunization record that indicates immunizations in hepatitis B, rubella, rubeola, mumps, PPD, tetanus, and chicken pox.

Interview - Qualified applicants must participate in an interview. Interviews are generally conducted in December for the spring cohort and March for the fall cohort.

Clinical Observation/Volunteer Experience - While such experience is not required, it is helpful in making a career choice.

The details of your prerequisite course work should be discussed with an IPFW allied health sciences advisor. You are also encouraged to consult an advisor at the IUPUI campus to discuss the degree by calling (317)278-4752 or by e-mail at askhpp@iupui.edu. The most current program information is found at http://msa.iusm.iu.edu/hpp/.

At IPFW you may complete the following courses:

- ENG W131 - Elementary Composition I Cr. 3.
- MA 11300 - Intermediate Algebra Cr. 3.
- PSY 12000 - Elementary Psychology Cr. 3.
- SOC S161 - Principles of Sociology Cr. 3.

Choose one of the following Credits: 3

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- COM 21200 - Approaches to the Study of Interpersonal Communication Cr. 3.

Choose one of the following sequences Credits: 8

- BIOL 20300 - Human Anatomy and Physiology Cr. 4.
  and
- BIOL 20400 - Human Anatomy and Physiology Cr. 4.

Or select:

- BIOL 21500 - Basic Human Anatomy Cr. 4.
  and
- BIOL 21600 - Basic Mammalian Physiology Cr. 4.

Total Credits: 23

Physical Therapy

Transfer Opportunity to IUPUI
Student Success Center
College of Health and Human Services
Neff Hall 120 ~ 260-481-4187 ~ www.ipfw.edu/hhs/ahtp/programs/physical.shtml

The entry-to-practice degree for the physical therapy profession is now the Doctor of Physical Therapy (D.P.T.), a graduate degree. A baccalaureate degree is required to gain entry to the program. At IPFW you may earn any baccalaureate degree and then apply to the Physical Therapy Program offered by the School of Health and Rehabilitation Sciences (SHRS) at Indiana University-Purdue University Indianapolis (IUPUI). Completion of a baccalaureate degree and prerequisites does not guarantee admission to the IUPUI program.

Overview - As members of the healthcare team, physical therapists help restore clients to normal functioning of the musculoskeletal and other systems through interventions utilizing therapeutic exercise, physical agents, and assistive devices.

Prerequisite Courses - Prior to entering IUPUI's Physical Therapy Program, students must complete specific prerequisite courses in addition to earning a baccalaureate degree. These prerequisites may be completed at IPFW. Students should consult with an IPFW allied health sciences advisor for appropriate courses and semester sequencing. Listed credit hours are minimums.

IUPUI Admission Requirements

Limitations of Course Work - Prerequisite courses in human anatomy, human physiology, chemistry, physics, and statistics must be completed within seven years of entry. The levels of anatomy, physiology, chemistry, and physics courses must be appropriate for science majors.

Class Size - 36

Criteria Used for Selection of Class - Admission is competitive and decisions will be made based upon cumulative grade point average (GPA) weighted 50%, GRE verbal score weighted 50%, completion of personal essay, and 16 observation hours in two different settings recorded on Generic Abilities Form. The applicants with the highest undergraduate cumulative GPA and verbal GRE scores are offered places in the program, which begins the following fall semester. Applicants ranked 37 to 71 will be given the opportunity to be placed upon a wait list (minimum of 35 slots) and will be considered should a place in the program become available.

Application Deadline – Applications may be submitted beginning August 1 and must be postmarked October 15 of the year prior to desired entry. Applications postmarked after October 15 will not be considered and fees will not be refunded.

Minimum Cumulative Grade Point Average - 3.2 on a 4.0 scale.

Minimum Specific Grade Point Average - 3.2 on a 4.0 scale for math and science course work, which includes grades earned in chemistry, physics, human anatomy, human physiology, and statistics.

Minimum Grade Requirement in a Stated Prerequisite Course - C (2.0 on a 4.0 scale)

Minimum Scores on Graduate Record Examination - 450 on each of verbal and quantitative measures. Test dates for the GRE scores provided must be within seven years of entry.

Application Criteria and Policies - At the time of application, applicants must have completed prerequisites with two or less remaining. Applicants with one or two course prerequisites in progress apply for contingent admission to begin classes in fall semester of the following calendar year. In addition, the applicant's baccalaureate degree must be completed by June 1, immediately prior to fall entry. NO WAIVERS OR EXCEPTIONS WILL BE GRANTED BY THE PHYSICAL THERAPY PROGRAM. Applicants who have previously been admitted to an entry-level physical therapy educational program and who then voluntarily or involuntarily leave such a program will not be considered eligible for admission into the Indiana University DPT program. Applicants placed on the wait list who are not accommodated in the class will be considered for admission to the following year's class. They must reapply during the following year's cycle and will compete for entry with that year's application cohort. For applicants for whom English is not their native language, a minimum TOEFL score of 650 is required at time of application. This policy is waived if the applicant has received an undergraduate degree from an accredited school in the United States by the time of entrance into the program.

Cardiopulmonary Resuscitation (CPR) Certification - Students must successfully complete Health Care Professional Level CPR Certification prior to entrance into the program. Certification must be maintained throughout the duration of the program.

Medical Terminology Proficiency - Students must demonstrate proficiency in medical terminology prior to entering the professional program. Proficiency can be demonstrated through formal course work, on-line instruction with certificate of completion, or self-study with departmental examination. Students will also need to be competent writers.

Technical Standards - Students are required to meet technical standards established by the School of Health & Rehabilitation Sciences. These standards are available from IUPUI upon request.

Medical Requirements - Basic immunizations as determined by IUPUI's Student Health Services must be completed by the first day of classes. Students must demonstrate proof of health insurance prior to entry into the program and must maintain health insurance throughout their enrollment.

Clinical Observation/Volunteer Experience - Applicants must complete observational, volunteer, or other work experiences in both hospital inpatient and outpatient physical therapy settings. Each experience must be the equivalent of one day, 8 hours. Each experience must be of sufficient length of time to enable the supervising physical therapist to adequately complete the IU DPT Program's Generic Abilities Assessment Form included as part of the application portfolio.

The details of your prerequisite course work should be discussed with an IPFW allied health sciences advisor. You are also encouraged to consult an advisor at the IUPUI campus to discuss the degree. Contact: Student Enrollment Services Coordinator for the School of Health & Rehabilitation Sciences by calling (317)274-7238. The most current program information is found at http://www.shrs.iupui.edu/physical_therapy/.

At IPFW you may complete the following courses:

- CHM 11500 - General Chemistry Cr. 4.
- CHM 11600 - General Chemistry Cr. 4.
- PSY 12000 - Elementary Psychology Cr. 3.
- PSY 36900 - Development Across the Lifespan Cr. 3.

Choose one of the following sequences Credits: 8-10

- PHYS 20100 - General Physics I Cr. 5.
  and
- PHYS 20200 - General Physics II Cr. 5.

Or select

- PHYS 21800 - General Physics Cr. 4.
  and
- PHYS 21900 - General Physics II Cr. 4.

Or select

- PHYS 22000 - General Physics Cr. 4.
  and
- PHYS 22100 - General Physics Cr. 4.

Choose one of the following sequences Credits: 8

Human Anatomy and Physiology I and II

- BIOL 20300 - Human Anatomy and Physiology Cr. 4.
- BIOL 20400 - Human Anatomy and Physiology Cr. 4.

Or select

Anatomy and Physiology I and II

- BIOL 21500 - Basic Human Anatomy Cr. 4.
- BIOL 21600 - Basic Mammalian Physiology Cr. 4.

Choose one of the following Credits: 3

- ECON E270 - Introduction to Statistical Theory in Economics and Business I Cr. 3.
- PSY 20100 - Introduction to Statistics in Psychology Cr. 3.
- SOC S351 - Social Statistics Cr. 3.
- SPEA K300 - Statistical Techniques Cr. 3.
- STAT 30100 - Elementary Statistical Methods I Cr. 3.

Electives:

Humanities/Social sciences electives: Cr. 6

Total prerequisite credits to be included in a baccalaureate degree Credits: minimum 39

If you choose to satisfy the medical terminology proficiency through coursework, choose one of the following Credits: 1-3

- BIOL 10500 - Medical Terminology Cr. 1.
- NUR 10600 - Medical Terminology Cr. 3.

Prepharmacy

Program: Transfer Program
College of Arts and Sciences

Liberal Arts Building 153 ~ 260-481-6160

Because the School of Pharmacy and Pharmacal Sciences at the Purdue University West Lafayette campus does not admit first- or second-year students, you must complete at least 64 credits in the two-year prepharmacy program and apply for admission to the school prior to Jan. 1 of the second year. To complete the prepharmacy program at IPFW, you should apply for admission as a prepharmacy student in the College of Arts and Sciences and complete the requirements listed below. To be considered for admission to the West Lafayette program, you should have at least a B+ average for all courses. If you do not gain admission to the pharmacy school, you may transfer to another program at IPFW. A complete set of degree requirements is available from the School of Pharmacy at West Lafayette.

Program Requirements

- Credits in approved electives Credits: Cr. 9
- BIOL 10800 - Biology of Plants Cr. 4.
- BIOL 10900 - Biology of Animals Cr. 4.
- BIOL 21500 - Basic Human Anatomy Cr. 4.
- BIOL 21600 - Basic Mammalian Physiology Cr. 4.
- BIOL 22000 - Microbiology for Allied Health Professionals Cr. 4.
- CHM 11500 - General Chemistry Cr. 4.
- CHM 11600 - General Chemistry Cr. 4.
- CHM 25400 - Organic Chemistry Laboratory Cr. 1.
- CHM 25500 - Organic Chemistry Cr. 3.
- CHM 25600 - Organic Chemistry Cr. 3.
- CHM 25800 - Organic Chemistry Laboratory Cr. 1.
- ECON E200 - Fundamentals of Economics Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
- ENG W233 - Intermediate Expository Writing Cr. 3.
- MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.
- MA 23000 - Calculus for the Managerial, Social, and Biological Sciences II Cr. 3.
- PHYS 22000 - General Physics Cr. 4.

Total Credits: 64

Preveterinary

Program: Transfer Program
College of Arts and Sciences

Science Building G56 ~ 260-481-6304

At IPFW, you may complete the four-semester preveterinary curriculum, which includes the minimum requirements for admission to the School of Veterinary Medicine at the West Lafayette campus of Purdue University.

If you do not gain admission to veterinary medicine, you may use the curriculum below as the basis for continued study toward a degree in the School of Agriculture at West Lafayette. Students should contact the agriculture dean's deputy early in their academic career to discuss degree options. By substitution of certain BIOL courses, you may pursue this option as a biology major and obtain the B.S. with a major in biology rather than in agriculture.

Program Requirements

You may complete the following courses at IPFW:

- BIOL 11700 - Principles of Ecology and Evolution Cr. 4.
- BIOL 11900 - Principles of Structure and Function Cr. 4.
- BIOL 21700 - Intermediate Ecology Cr. 3.
- BIOL 21800 - Genetics and Molecular Biology Cr. 4.
- BIOL 21900 - Principles of Functional Biology Cr. 4.
- CHM 11500 - General Chemistry Cr. 4.
- CHM 11600 - General Chemistry Cr. 4.

- CHM 25400 - Organic Chemistry Laboratory Cr. 1.
- CHM 25500 - Organic Chemistry Cr. 3.
- CHM 25600 - Organic Chemistry Cr. 3.
- CHM 25800 - Organic Chemistry Laboratory Cr. 1.
- CHM 53300 - Introductory Biochemistry Cr. 3.
- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.
- MA 23000 - Calculus for the Managerial, Social, and Biological Sciences II Cr. 3.
- PHYS 22000 - General Physics Cr. 4.
- PHYS 22100 - General Physics Cr. 4.
- STAT 30100 - Elementary Statistical Methods I Cr. 3.
- VM 10200 - Careers in Veterinary Cr. 1.

Credits in an agriculture course Credits: 3

- ANSC 10100 - Animal Agriculture Cr. 3.
- ANSC 22100 - Principles of Animal Nutrition Cr. 3.
- FNR 10300 - Introduction to Environmental Conservation Cr. 3.

Credits in English composition Credits: 6

- ENG W131 - Elementary Composition I Cr. 3.
- ENG W233 - Intermediate Expository Writing Cr. 3.

Credits from the following areas: Credits: 12

- Anthropology
- Communication
- Economics
- History
- Fine arts, music, and theatre (history and appreciation only)
- Foreign language
- Literature
- Philosophy
- Political science
- Psychology
- Sociology

Total Credits: 82

Preveterinary Technology

Program: Transfer Program
College of Arts and Sciences

Science Building G56 ~ 260-481-6304

At IPFW, you may complete the four-semester preveterinary curriculum, which includes the minimum requirements for admission into the baccalaureate degree program in veterinary technology at the West Lafayette campus of Purdue University.

Also available are the associate degree program and a distance learning Web-based instruction program for veterinary technology, both administered through Purdue University West Lafayette. For information concerning admission to these programs, please visit this Web site: http://vet.vet.purdue.edu/vtdl/vtdlhome/.

The distance-learning program leads to an associate degree from Purdue University while taking all required courses either at the IPFW campus, via distance learning and Web instruction, or in collaboration with local designated clinical mentors and/or veterinarians in the surrounding counties.

Program Requirements

You may complete the following courses for the baccalaureate and associate degree programs at IPFW:

- Nine credits for electives in the following areas: Credits: 9
  anthropology, communication, economics, history, philosophy, political science, psychology, sociology

- ANSC 10100 - Animal Agriculture Cr. 3.
- ANSC 22100 - Principles of Animal Nutrition Cr. 3.
- BIOL 11700 - Principles of Ecology and Evolution Cr. 4.
- BIOL 11900 - Principles of Structure and Function Cr. 4.
- CHM 11100 - General Chemistry Cr. 3.
- CHM 11200 - General Chemistry Cr. 3.
- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
- ENG W233 - Intermediate Expository Writing Cr. 3.
- MA 15300 - Algebra and Trigonometry I Cr. 3.
- MA 15400 - Algebra and Trigonometry II Cr. 3.
- VM 10200 - Careers in Veterinary Cr. 1.

Total credits available for transfer to Purdue University Programs: 45

Radiation Therapy

Transfer Opportunity to IUPUI
Student Success Center
College of Health and Human Services

Neff Hall 120 ~ 260-481-4187 ~ www.ipfw.edu/hhs/ahtp/programs/radiation.shtml

At IPFW you may complete two years toward the Bachelor of Science in radiation therapy. You must apply and be admitted to the Radiation Therapy Program at Indiana University-Purdue University Indianapolis (IUPUI) to complete the degree. Non-radiographers and radiographers may apply to the program. Non-radiographers are those who are not registered in radiography by the American Registry of Radiologic Technologists or who have not completed a radiography program accredited by the Joint Review Committee on Education in Radiologic Technology. Entry and program requirements vary depending on radiography background. Completion of IPFW

course work does not guarantee admission to the IUPUI program. Graduates receive their degree from the IU School of Medicine.

Overview - Radiation therapy involves the use of ionizing radiation for the treatment of benign and malignant tumors.

Prerequisite Courses – Prior to entering IUPUI's Radiation Therapy Program, the student must complete the minimum prerequisites. These prerequisites may be completed at IPFW. Students should consult with an IPFW allied health sciences advisor for appropriate courses and semester sequencing.

Suggested Electives -The number of elective courses will differ for each student to complete a total of 50 credit hours of prerequisite course work. Additional electives may be required, before or during the professional program, to complete a minimum of 122 credit hours of academic course work for graduation.

IUPUI Admission Requirements

Criteria Used for Selection of Class - Admission to the Radiation Therapy Program is based on an admission index composed of cumulative grade point average, mathematics and science grade point average, prerequisite courses grade point average, interview.

Application Deadline - December 1 of the year prior to desired entry.

Minimum Prerequisite Grade Point Average - 2.5 on a 4.0 scale. This requirement is applied at the time of program application. Grades from remedial courses are not calculated in the grade point average of the prerequisite courses to determine the admission index.

Minimum Specific Grade Point Average - 2.3 on a 4.0 scale for math and science course work**. This** requirement is applied at the time of program application and must be maintained. Grades from remedial courses are not calculated in the mathematics and science grade point average to determine the admission index.

Minimum Grade Requirement in a Stated Prerequisite Course - C (2.0 on a 4.0 scale)

Interview - A personal interview is required. If the number of applications to the program far exceeds the number of positions available, the program's Admissions Committee reserves the right to limit the number of applicants to be interviewed to two times the number of positions available in the class. Interviews are conducted in January.

Clinical Observation - The student must observe for a minimun of 8 hours in a radiation oncology facility prior to applying to the program.

Additional Non-Radiographer Admission Requirements

Class Size - Admits 12 Non-radiographers

Minimum Number of Prerequisite Credits – 50

Additional Radiographer Admission Requirements

Minimum Number of Prerequisite Credits – Satisfactory completion of general education and technical specialty requirements.

Minimum Specific Grade Point Average – 2.5 on a 4.0 scale for radiography course work**.**

Proof of Radiologic Technology Specialty - Applicants must supply evidence of registration in radiography by the ARRT or completion of a radiography program accredited by the Joint Review Committee on Education in Radiologic Technology, such as the Fort Wayne School of Radiography. The technical specialty area is complete for applicants who have completed an associate or baccalaureate degree in radiography.

The details of your prerequisite course work should be discussed with an IPFW allied health sciences advisor. You are also encouraged to consult an advisor at the IUPUI campus to discuss the degree by calling (317)278-4752 or by e-mail at askhpp@iupui.edu. The most current program information is found at http://msa.iusm.iu.edu/hpp/.

At IPFW you may complete the following courses:

- ENG W131 - Elementary Composition I Cr. 3.
- ENG W233 - Intermediate Expository Writing Cr. 3.
- PSY 12000 - Elementary Psychology Cr. 3.

Choose one of the following Credits: 3

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- COM 21200 - Approaches to the Study of Interpersonal Communication Cr. 3.

Choose one of the following Credits: 5-6

- MA 15900 - Precalculus Cr. 5.

Or select:

- MA 15300 - Algebra and Trigonometry I Cr. 3.
  and
- MA 15400 - Algebra and Trigonometry II Cr. 3.

Choose one of the following Credits: 3

- STAT 30100 - Elementary Statistical Methods I Cr. 3.
- PSY 20100 - Introduction to Statistics in Psychology Cr. 3.

Choose one of the following Credits: 3

- ETCS 10600 - Introduction to Computers Cr. 3.

Or select:

Computer Orientation

- BUS K211 - Spreadsheets for Business Cr. 1.
  and
- BUS K212 - Introduction to Database Management Cr. 1.
  and
- BUS K213 - Internet Literacy for Business Cr. 1.

Choose one of the following Credits: 8

- BIOL 20300 - Human Anatomy and Physiology Cr. 4.
  and
- BIOL 20400 - Human Anatomy and Physiology Cr. 4.

Or select:

- BIOL 21500 - Basic Human Anatomy Cr. 4.
  and
- BIOL 21600 - Basic Mammalian Physiology Cr. 4.

Choose one of the following Credits: 4-5

- PHYS 20100 - General Physics I Cr. 5.
- PHYS 21800 - General Physics Cr. 4.
- PHYS 22000 - General Physics Cr. 4.

Choose one of the following Credits: 1-3

- AHLT R185 - Medical Terminology Cr. 1.
- BIOL 10500 - Medical Terminology Cr. 1.
- NUR 10600 - Medical Terminology Cr. 3.

Electives:

- Business electives: Cr. 6
- Humanities elective: Cr. 3
- Social/Behavioral science elective: Cr. 3
- General electives to bring total credits to 50
- ## Total Credits: 50

Respiratory Therapy

Transfer Opportunity to IUPUI
Student Success Center
College of Health and Human Services

Neff Hall 120 ~ 260-481-4187 ~ http://www.ipfw.edu/hhs/ahtp/programs/respiratory.shtml

At IPFW you may complete two years toward the Bachelor of Science in respiratory therapy. You must apply and be admitted to the Respiratory Therapy Program at Indiana University-Purdue University Indianapolis (IUPUI) to complete the degree. Completion of IPFW course work does not guarantee admission to the IUPUI program. The IUPUI respiratory therapy program is part of a hospital- and university-based consortium that also includes Ball State University, the University of Indianapolis, and Clarian Health Partners. Classroom and laboratory courses are held at Methodist Hospital (Indianapolis). Students remained enrolled at IUPUI for all their Respiratory Therapy courses. Graduates receive their degree from the IU School of Medicine.

Overview - Respiratory therapists evaluate and treat patients with cardiopulmonary disorders and are actively involved in health promotion and disease prevention.

Prerequisite Courses - Prior to entering IUPUI's Respiratory Therapy Program, the student must complete the minimum prerequisites. These prerequisites may be completed at IPFW. Students should consult with an IPFW allied health sciences advisor for appropriate courses and semester sequencing.

IUPUI Admission Requirements

Total Number of Prerequisite Credits – 55   These may be completed at IPFW.

Class Size - Approximately 30 students in the consortium.

Application Deadline - January 1. Late applications will be considered on a space-available basis.

Minimum Cumulative Grade Point Average - 2.5 on a 4.0 scale - This requirement is applied at the time of program application and must be maintained.

Minimum Specific Grade Point Average - 2.0 on a 4.0 scale for math and science course work. This requirement is applied at the time of program application and must be maintained.

Cardiopulmonary Resuscitation (CPR) Certification - All students are required to complete instruction for adult, child, and infant CPR before entry into the program. This must be the Healthcare Provider CPR or CPR for the Professional Rescuer. These courses are offered for a fee through the American Heart Association and the American Red Cross.

Technical Standards - See IUPUI Health Professions Programs policy. All accepted students will be required to sign a statement certifying that they can meet the program's technical standards.

Medical Requirements - All students are required to complete a medical history and document a complete vaccination program once accepted into the respiratory therapy program.

Interview - Qualified applicants must participate in an interview.

Clinical Observation - Applicants must complete and document at least three hours of clinical observation with a respiratory therapist.

Limited Submission of Application - Students apply to the professional/clinical portion of the respiratory therapy program may not submit applications through two or more universities.

The details of your prerequisite course work should be discussed with an IPFW allied health sciences advisor. You are also encouraged to consult an advisor at the IUPUI campus to discuss the degree by calling (317)278-4752 or by e-mail at askhpp@iupui.edu. The most current program information is found at http://msa.iusm.iu.edu/hpp/.

At IPFW you may complete the following courses:

- BIOL 22000 - Microbiology for Allied Health Professionals Cr. 4.
- CHM 11500 - General Chemistry Cr. 4.
- ENG W131 - Elementary Composition I Cr. 3.
- ENG W233 - Intermediate Expository Writing Cr. 3.
- MA 15300 - Algebra and Trigonometry I Cr. 3.
- MA 15400 - Algebra and Trigonometry II Cr. 3.
- PSY 12000 - Elementary Psychology Cr. 3.
- ETCS 10600 - Introduction to Computers Cr. 3.

Choose one of the following sequences Credits: 8

- BIOL 20300 - Human Anatomy and Physiology Cr. 4.
  and
- BIOL 20400 - Human Anatomy and Physiology Cr. 4.

Or select:

- BIOL 21500 - Basic Human Anatomy Cr. 4.
  and
- BIOL 21600 - Basic Mammalian Physiology Cr. 4.

Choose one of the following Credits: 3

- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- COM 21200 - Approaches to the Study of Interpersonal Communication Cr. 3.

Choose one of the following Credits: 3

- PHIL 11100 - Ethics Cr. 3.
- PHIL 31200 - Medical Ethics Cr. 3.

Choose one of the following Credits: 3

- ECON E270 - Introduction to Statistical Theory in Economics and Business I Cr. 3.
- PSY 20100 - Introduction to Statistics in Psychology Cr. 3.
- SOC S351 - Social Statistics Cr. 3.
- SPEA K300 - Statistical Techniques Cr. 3.
- STAT 30100 - Elementary Statistical Methods I Cr. 3.

Choose one of the following Credits: 3

- EDUC P249 - Growth and Development in Early Childhood Cr. 3.
- PSY 23500 - Child Psychology Cr. 3.
- PSY 36200 - Human Development II: Adolescence Cr. 3.
- PSY 36700 - Adult Development and Aging Cr. 3.
- PSY 36900 - Development Across the Lifespan Cr. 3.

Choose one of the following Credits: 4-5

- PHYS 20100 - General Physics I Cr. 5.
- PHYS 21800 - General Physics Cr. 4.
- PHYS 22000 - General Physics Cr. 4.

Electives:

- General electives to bring total credits to 55
- Total Credits: 55

TransferIN.net: Indiana Core Transfer Library

What is the CTL?

Indiana is working to help you transfer college credits more easily. To enable students to connect college credits, Indiana has developed the Core Transfer Library (CTL) - a list of courses that will transfer among all Indiana public college and university campuses, assuming adequate grades.

Core Transfer Library courses will meet the general or free elective requirements of undergraduate degree programs, and most CTL courses will also count toward degree program requirements - if an equivalent course is taught at your new campus.

At the time of publication, the IPFW courses listed below have been approved as part of the CTL. Additional courses are being added. For complete and up-to-date information, visit www.transferIN.net.

Course List:

- AST A100 - The Solar System Cr. 3.
- BIOL 10000 - Introduction to the Biological World Cr. 3.
- BIOL 10001 - Introduction to the Biological World Laboratory Cr. 1.
- BIOL 10500 - Medical Terminology Cr. 1.
- BIOL 11700 - Principles of Ecology and Evolution Cr. 4.
- BIOL 11900 - Principles of Structure and Function Cr. 4.
- BIOL 22000 - Microbiology for Allied Health Professionals Cr. 4.
- BUS A201 - Principles of Financial Accounting Cr. 3.
- BUS W100 - Principles of Business Administration Cr. 3.
- CHM 10400 - Living Chemistry Cr. 3.
- CHM 11500 - General Chemistry Cr. 4.
- CHM 11600 - General Chemistry Cr. 4.
- COM 11400 - Fundamentals of Speech Communication Cr. 3.
- COM 21200 - Approaches to the Study of Interpersonal Communication Cr. 3.
- ECON E200 - Fundamentals of Economics Cr. 3.
- ECON E201 - Introduction to Microeconomics Cr. 3.
- ECON E202 - Introduction to Macroeconomics Cr. 3.
- ENG L101 - Western World Masterpieces I: Ancient to Renaissance Cr. 3.
- ENG L102 - Western World Masterpieces II: Renaissance to Modern Cr. 3.
- ENG L202 - Literary Interpretation Cr. 3.
- ENG L250 - American Literature Before 1865 Cr. 3.
- ENG L251 - American Literature Since 1865 Cr. 3.

- ENG L390 - Children's Literature Cr. 3.
- ENG W103 - Introductory Creative Writing Cr. 3.
- ENG W131 - Elementary Composition I Cr. 3.
- ENG W233 - Intermediate Expository Writing Cr. 3.
- ENG W234 - Technical Report Writing Cr. 3.
- ETCS 10600 - Introduction to Computers Cr. 3.
- FINA H101 - Art Appreciation Cr. 3.
- FINA H111 - Ancient and Medieval Art Cr. 3.
- FINA H112 - Renaissance Through Modern Art Cr. 3.
- FNN 30300 - Essentials of Nutrition Cr. 3.
- FREN F111 - Elementary French I Cr. 4.
- FREN F112 - Elementary French II Cr. 4.
- FREN F203 - Second-Year French I Cr. 3.
- FREN F204 - Second-Year French II Cr. 3.
- GEOL G103 - Earth Science: Materials and Processes Cr. 3.
- HIST H105 - American History I Cr. 3.
- HIST H106 - American History II Cr. 3.
- MA 15300 - Algebra and Trigonometry I Cr. 3.
- MA 15400 - Algebra and Trigonometry II Cr. 3.
- MA 16500 - Analytic Geometry and Calculus I Cr. 4.
- MA 16600 - Analytic Geometry and Calculus II Cr. 4.
- MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
- MA 21300 - Finite Mathematics I Cr. 3.
- MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.
- MA 23000 - Calculus for the Managerial, Social, and Biological Sciences II Cr. 3.
- MUS Z101 - Music for the Listener Cr. 3.
- PHIL 11100 - Ethics Cr. 3.
- PHIL 20600 - Philosophy of Religion Cr. 3.
- PHYS 15200 - Mechanics Cr. 5.
- PHYS 22000 - General Physics Cr. 4.
- PHYS 22100 - General Physics Cr. 4.
- PHYS 25100 - Heat, Electricity, and Optics Cr. 5.
- POLS Y103 - Introduction to American Politics Cr. 3.
- POLS Y109 - Introduction to International Relations Cr. 3.
- PSY 12000 - Elementary Psychology Cr. 3.
- PSY 24000 - Introduction to Social Psychology Cr. 3.
- PSY 35000 - Abnormal Psychology Cr. 3.
- PSY 36900 - Development Across the Lifespan Cr. 3.
- PSY 44400 - Human Sexual Behavior Cr. 3.
- SOC S161 - Principles of Sociology Cr. 3.
- SOC S163 - Social Problems Cr. 3.
- SPAN S111 - Elementary Spanish I Cr. 4.
- SPAN S112 - Elementary Spanish II Cr. 4.
- SPAN S203 - Second-Year Spanish I Cr. 3.
- SPAN S204 - Second-Year Spanish II Cr. 3.
- SPEA J101 - The American Criminal Justice System Cr. 3.
- THTR 13400 - Fundamentals of Performance Cr. 3.

- THTR 20100 - Theatre Appreciation Cr. 3.

Other Programs

Computer Engineering and Electrical Engineering (B.S.Cmp.E & B.S.E.E Dual Degree)

Programs: B.S.Cmp.E. & B.S.E.E.
Department of Engineering
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 327 ~ 260-481-6362 ~ www.engr.ipfw.edu

You may choose to complete a dual degree in Computer Engineering and Electrical Engineering by completing all of the requirements in both the B.S.Cmp.E. and the B.S.E.E. programs. With overlapping coursework, the dual degree requires 147 hours.

Part 6: Course Descriptions

Part 6 contains course descriptions in alphabetical order.

Standard information for each course includes the number, title, and credits (sometimes called credit hours or semester hours). For some courses, you will find information on the hours of class, laboratory, or studio for which the course is scheduled in each week of a regular semester; these weekly hours are expanded during summer sessions. Fees for courses are assessed on the basis of credits and other factors.

The course-numbering system generally suggests levels of difficulty and appropriateness. Courses at the 100 and 200 levels comprise introductory offerings and those are most commonly taken by freshmen and sophomores. Courses at the 300 and 400 levels are primarily for juniors and seniors. In some Purdue programs, undergraduates take courses at the 500 level, but generally courses numbered 500 and above are for graduate students.

Preparation for courses is indicated as follows:

P: indicates a prerequisite that must precede your enrollment in the course described. You may find one or more specific course numbers, the number of credits you should already have in a subject, a placement-test level, or other conditions.

C: indicates a corequisite that must be taken no later than the same semester in which you take the course described.

R: indicates a recommendation concerning conditions to be met for enrollment in the course.

When no subject code is shown for prerequisites, corequisites, and recommended courses, they are in the same subject area as the course being described. If you lack a prerequisite or corequisite, or if you wish to take a course numbered at a higher level than your present status, you should seek the department's or instructor's consent to enroll in the course.

V.T. means Variable Title and is shown for courses for which the title may be changed to specify the topic or other special focus of each offering.

Session indicators (fall, spring, summer) suggest the times at which courses are generally offered. Scheduling patterns may, however, vary.

IPFW reserves the right to add,withdraw, or change courses without notice.

ACS 52100 - Topics in Computer Graphics

ACS 54400 - Performance Modeling and Evaluation of Computer Systems

ACS 56000 - Software Engineering

ACS 56200 - Systems Analysis and Design

ACS 56400 - Human-Computer Interaction

ACS 56600 - The Strategic Role of Information Systems

ACS 56700 - Software Project Management

ACS 56800 - Object-Oriented Systems Development

ACS 57400 - Advanced Computer Networks

ACS 57500 - Database Systems

ACS 57600 - Distributed Database Systems

ACS 57600 - Distributed Database Systems

ACS 58200 - Expert Systems

AFRO A210 - The Black Woman in America

AGR 10100 - Introduction to Agriculture and Purdue

AHLT C460 - Clinical Hematology

AHLT C461 - Clinical Analysis of Urine and Body Fluids

AHLT C462 - Clinical Microbiology and Mycology

AHLT C463 - Clinical Parasitology

AHLT C464 - Clinical Serology

AHLT C465 - Clinical Chemistry

AHLT C466 - Clinical Immunohemtology

AHLT C467 - Professional Development Topics in Medical Technology

AHLT R100 - Orientation to Radiologic Technology

AHLT R101 - Radiographic Procedures I

AHLT R102 - Principles of Radiography I

AHLT R181 - Clinical Experience in Radiography

AHLT R182 - Clinical Experience in Radiography

AHLT R185 - Medical Terminology

AHLT R200 - Pathology

AHLT R201 - Radiographic Procedures II

AHLT R202 - Principles of Radiography II

AHLT R205 - Radiographic Procedures III

AHLT R222 - Principles of Radiography III

AHLT R250 - Physics Applied to Radiology

AHLT R260 - Radiation Biology and Protection in Diagnostic Radiology

AHLT R281 - Clinical Experience in Radiography

AHLT R282 - Clinical Experience in Radiography

AHLT R283 - Clinical Experience in Radiography

AHLT R290 - Comprehensive Experience

AMST A200 - Comparative American Identities

AMST A301 - The Question of American Identity

AMST A440 - Senior Seminar in American Studies

AMST A441 - America in Global Perspective

ANSC 10100 - Animal Agriculture

ANSC 22100 - Principles of Animal Nutrition

ANTH A200 - Topics in Anthropology

ANTH A460 - Topics in Anthropology

ANTH A495 - Individual Readings in Anthropology

ANTH A496 - Field Study in Anthropology

ANTH B200 - Bioanthropology

ANTH B426 - Human Osteology

ANTH E102 - Anthropology of America

ANTH E105 - Culture and Society

ANTH E200 - Social and Cultural Anthropology

ANTH E301 - Plain People of Indiana

ANTH E310 - Introduction to the Cultures of Africa

ANTH E320 - Indians of North America

ANTH E321 - Peoples of Mexico

ANTH E330 - Indians of South America

ANTH E335 - Ancient Civilizations of Mesoamerica

ANTH E341 - Culture of China

ANTH E350 - European Ethnography

ANTH E356 - Cultures of the Pacific

ANTH E375 - Cultural Psychiatry

ANTH E398 - Peoples and Cultures of Central Asia

ANTH E400 - Undergraduate Seminar

ANTH E401 - Ecology and Culture

ANTH E402 - Gender in Cross-Cultural Perspective

ANTH E405 - Principles of Social Organization

ANTH E406 - Anthropology and Documentary Films

ANTH E420 - Economic Anthropology

ANTH E421 - The Anthropology of Aging

ANTH E445 - Medical Anthropology

ANTH E455 - Anthropology of Religion

ANTH E457 - Ethnic Identity

ANTH E462 - Anthropological Folklore

ANTH E470 - Psychological Anthropology

ANTH E479 - Indian Cultures of Peru

ANTH H445 - History and Theory of Anthropology

ANTH L200 - Language and Culture

ANTH L400 - Seminar in the Ethnography of Communication

ANTH P200 - Introduction to Prehistoric Archaeology

ANTH P220 - Rise and Fall of Ancient Civilizations

ANTH P240 - Archaeology and the Movies

ANTH P300 - Topics in Prehistory

ANTH P310 - Old World Archaeology

ANTH P360 - Archaeology of North America

ANTH P361 - Prehistory of Eastern North America

ANTH P370 - Ancient Cultures of South America

ANTH P376 - Archaeology of Death

ANTH P382 - Archaeological Research Design

ANTH P399 - Undergraduate Seminar

ANTH P400 - Archaeological Methods and Techniques

ANTH P405 - Fieldwork in Archaeology

ARET 12300 - Construction Graphic Communication

ARET 12400 - Architectural Engineering Construction I

ARET 16700 - Construction Systems and Materials

ARET 22200 - Architectural Engineering Construction II

ARET 22300 - Digital Graphics for Built Environment II

ARET 28100 - Environmental Equipment for Buildings I

ARET 28200 - Environmental Equipment for Buildings II

ARET 32100 - Architectural Presentation Techniques I

ARET 32400 - Sustainable Construction

ARET 35400 - Principles of Land Use

ARET 35500 - Techniques of Land Utilization

ARET 38400 - Environmental Equipment for Buildings III

ARET 49900 - Architectural Engineering Technology

AST A100 - The Solar System

AST A105 - Stars and Galaxies

AST L100 - Solar System Laboratory

BIOL 10000 - Introduction to the Biological World

BIOL 10001 - Introduction to the Biological World Laboratory

BIOL 10500 - Medical Terminology

BIOL 10800 - Biology of Plants

BIOL 10900 - Biology of Animals

BIOL 11700 - Principles of Ecology and Evolution

BIOL 11900 - Principles of Structure and Function

BIOL 12600 - Human Biology

BIOL 12700 - Introduction to Human Diseases

BIOL 14000 - Marine Biology

BIOL 18300 - Professional Practice I

BIOL 18400 - Professional Practice II

BIOL 19500 - Special Assignments

BIOL 20300 - Human Anatomy and Physiology

BIOL 20400 - Human Anatomy and Physiology

BIOL 21500 - Basic Human Anatomy

BIOL 21600 - Basic Mammalian Physiology

BIOL 21700 - Intermediate Ecology

BIOL 21800 - Genetics and Molecular Biology

BIOL 21900 - Principles of Functional Biology

BIOL 22000 - Microbiology for Allied Health Professionals

BIOL 25000 - Women and Biology

BIOL 28400 - Professional Practice III

BIOL 29500 - Special Assignments

BIOL 30400 - Major Ideas in Biology

BIOL 30400 - Major Ideas in Biology (Honors Course)

BIOL 31500 - Developmental Anatomy

BIOL 31700 - Addictions: Biology, Psychology, and Society

BIOL 32600 - Heredity: A Human Perspective

BIOL 32600 - Heredity: A Human Perspective (Honors Course)

BIOL 32700 - Biology of Aging

BIOL 33400 - Clinical Pathophysiology

BIOL 33500 - Animal Behavior

BIOL 33600 - Animal Behavior Lab

BIOL 34500 - Vertebrate Biology

BIOL 34900 - Environmental Science

BIOL 35000 - Plant Physiology

BIOL 38100 - Cell Biology

BIOL 38200 - Laboratory in Cell Biology

BIOL 38600 - Professional Practice IV

BIOL 43400 - Marine Community Ecology

BIOL 43700 - General Microbiology

BIOL 44500 - Aquatic Biology

BIOL 48700 - Professional Practice V

BIOL 49100 - Senior Biology Seminar

BIOL 50100 - Field Botany

BIOL 50200 - Conservation Biology

BIOL 50500 - Biology of Invertebrate Animals

BIOL 50600 - Human Molecular Genetics

BIOL 50900 - Molecular Biology and Applications

BIOL 51500 - Molecular Genetics

BIOL 51600 - Molecular Biology of Cancer

BIOL 52000 - Contemporary Parasitology

BIOL 53300 - Medical Microbiology

BIOL 53700 - Immunobiology

BIOL 54000 - Biotechnology

BIOL 54300 - Population Ecology

BIOL 54400 - Principles of Virology

BIOL 55600 - Physiology I

BIOL 55800 - Laboratory in Physiology

BIOL 55900 - Endocrinology

BIOL 56500 - Immunobiology Lab

BIOL 56600 - Developmental Biology

BIOL 56700 - Laboratory in Developmental Biology

BIOL 57900 - Fate of Chemicals in the Environment

BIOL 58000 - Evolution

BIOL 58200 - Ecotoxicology

BIOL 58400 - Molecular Biology and Applications Laboratory

BIOL 58600 - Topics in Behavior and Ecology

BIOL 59200 - The Evolution of Behavior

BIOL 59500 - Special Assignments

BIOL 59800 - Biology of Fish

BUFW X295 - Practicum in Business

BUFW X380 - Professional Practice in Business

BUFW X381 - Professional Practice in Business

BUS A201 - Principles of Financial Accounting

BUS A202 - Principles of Managerial Accounting

BUS A311 - Intermediate Accounting I

BUS A312 - Intermediate Accounting II

BUS A314 - Financial Statement Analysis

BUS A317 - Computer-Based Accounting Systems

BUS A325 - Cost Accounting

BUS A328 - Introduction to Taxation

BUS A331 - Taxation of Business Entities

BUS A332 - Taxation of Individuals

BUS A335 - Accounting For Government & Not-For-Profit Entities

BUS A336 - Internship in Accounting

BUS A339 - Advanced Income Tax

BUS A422 - Advanced Financial Accounting

BUS A424 - Auditing

BUS A425 - Contemporary Accounting Theory

BUS A437 - Advanced Management Accounting

BUS A439 - Advanced Auditing

BUS A490 - Independent Study in Accounting

BUS D300 - International Business Administration

BUS D490 - Special Studies in International Business Administration

BUS F260 - Personal Finance

BUS F301 - Financial Management

BUS F303 - Intermediate Investments

BUS F310 - Financial Statement Analysis - Finance Perspective

BUS F345 - Money/Banking/Capital Markets

BUS F350 - Futures and Options Markets

BUS F420 - Equity and Fixed Income Investments

BUS F446 - Management of Commercial Banks and Other Financial Institutions

BUS F480 - Professional Practice in Finance

BUS F490 - Independent Study in Finance

BUS F494 - International Finance

BUS G300 - Introduction to Managerial Economics

BUS J100 - Introduction to College and Business Careers

BUS J200 - Business Degree Seminar

BUS J300 - Business Forum: Management of Diversity in Organizations

BUS J401 - Policy and Strategy

BUS K200 - Computer Literacy Concepts for Business

BUS K211 - Spreadsheets for Business

BUS K212 - Introduction to Database Management

BUS K213 - Internet Literacy for Business

BUS K214 - Introduction to Word Processing

BUS K215 - Basic Programming for Business

BUS K216 - Business Graphics

BUS K321 - Management of Information Technology

BUS K327 - Deterministic Models in Operations Research

BUS K409 - E-Business

BUS K490 - Independent Study in Decision Sciences

BUS L200 - Elements of Business Law

BUS L303 - Commercial Law II

BUS M301 - Marketing Management in a Competitive Environment

BUS M303 - Marketing Research

BUS M405 - Consumer Behavior

BUS M408 - Quantitative Methods for Marketing Management

BUS M415 - Advertising and Promotion Management

BUS M420 - New Product Management

BUS M426 - Sales Management

BUS M450 - Marketing Strategy and Policy

BUS M490 - Independent Study in Marketing

BUS P301 - Managing Operations in a Competitive Environment

BUS P421 - Operations Planning and Control

BUS P490 - Independent Study in Operations Management

BUS W100 - Principles of Business Administration

BUS W204 - Social, Legal, and Ethical Implications of Business Decisions

BUS W311 - New Venture Creation

BUS W312 - Entrepreneurship

BUS W430 - Organizations and Organizational Change

BUS W490 - Independent Study in Business Administration

BUS X394 - Practicum in Business

BUS Z302 - Management of Organizations and People

BUS Z440 - Personnel: Human Resources Management

BUS Z444 - Personnel Research and Measurement

BUS Z490 - Independent Study in Personnel Management and Organizational Behavior

BUS Z490 - Independent Study in Personnel Management and Organizational Behavior (Honors Course)

CDFS 25500 - Introduction to Couple and Family Relationships

CE 19100 - Civil Engineering Practice I

CE 20000 - Fundamentals of Surveying

CE 21000 - Introduction to Geomatics

CE 25000 - Statics

CE 25100 - Dynamics

CE 25200 - Strength of Materials

CE 29100 - Civil Engineering Practice II

CE 31500 - Civil Engineering Materials

CE 31600 - Civil Engineering Materials Laboratory

CE 31800 - Fluid Mechanics

CE 31900 - Fluid Mechanics Laboratory

CE 33000 - Construction Management

CE 34500 - Transportation Engineering

CE 36500 - Environmental Engineering

CE 36600 - Environmental Engineering Laboratory

CE 37500 - Structural Analysis

CE 37600 - Design of Concrete Structures

CE 37900 - Numerical Methods for Engineers

CE 38000 - Soil Mechanics

CE 38100 - Soil Mechanics Laboratory

CE 39100 - Civil Engineering Practice III

CE 41800 - Hydraulics Engineering

CE 45100 - Traffic Engineering

CE 47500 - Design of Steel Structures

CE 48000 - Finite Element Analysis

CE 48700 - Civil Engineering Design Project I

CE 48800 - Civil Engineering Design Project II

CE 49000 - Selected Topics in Civil Engineering

CE 49100 - Civil Engineering Practice IV

CE 49200 - Civil Engineering Practice V

CE 57000 - Advanced Structural Mechanics

CET 10400 - Elementary Surveying

CET 10800 - Route Surveying and Design

CET 20600 - Construction Surveying

CET 20900 - Land Surveying and Subdivision

CET 25300 - Hydraulics and Drainage

CET 26600 - Materials Testing

CET 35300 - Hydraulics and Drainage II

CET 38100 - Structural Analysis

CET 38500 - Fundamentals of Reinforced Concrete

CET 40900 - Property Surveying

CET 43100 - Properties and Behavior of Soils

CET 45300 - Water and Waste-Water Technology

CET 48200 - Steel Structure Design

CET 48400 - Wood Timber and Formwork

CET 49900 - Civil Engineering Technology

CFS 39900 - Special Issues

CHM 10200 - Lectures in Chemical Science for Engineers

CHM 10400 - Living Chemistry

CHM 11100 - General Chemistry

CHM 11200 - General Chemistry

CHM 11500 - General Chemistry

CHM 11500 - General Chemistry (Honors Course)

CHM 11600 - General Chemistry

CHM 11600 - General Chemistry (Honors Course)

CHM 12000 - Chemistry and Art

CHM 18300 - Cooperative Work Experience I

CHM 18400 - Cooperative Work Experience II

CHM 21800 - Introduction to Inorganic Chemistry

CHM 22400 - Introductory Quantitative Analysis

CHM 25100 - Organic Chemistry

CHM 25200 - Organic Chemistry Laboratory

CHM 25400 - Organic Chemistry Laboratory

CHM 25500 - Organic Chemistry

CHM 25600 - Organic Chemistry

CHM 25800 - Organic Chemistry Laboratory

CHM 26100 - Organic Chemistry

CHM 26200 - Organic Chemistry

CHM 26500 - Organic Chemistry Laboratory

CHM 26600 - Organic Chemistry Laboratory

CHM 28000 - Chemical Literature

CHM 28400 - Cooperative Work Experience III

CHM 29000 - Selected Topics in Chemistry for Lower Division Students

CHM 32100 - Analytical Chemistry I

CHM 34200 - Inorganic Chemistry

CHM 34300 - Inorganic Chemistry Laboratory

CHM 37100 - Physical Chemistry

CHM 37600 - Physical Chemistry Laboratory

CHM 38300 - Physical Chemistry

CHM 38400 - Physical Chemistry

CHM 38500 - Physical Chemistry

CHM 38600 - Cooperative Work Experience IV

CHM 42400 - Analytical Chemistry II

CHM 48700 - Cooperative Work Experience V

CHM 49000 - Selected Topics in Chemistry for Upper Division Students

CHM 49500 - Seminar in Chemistry

CHM 49600 - Advances in Chemistry I

CHM 49700 - Advances in Chemistry II

CHM 49900 - Special Assignments

CHM 50200 - Modern Chemistry in the High School

CHM 50500 - Advanced Chemistry for Teachers I

CHM 50600 - Advanced Chemistry for Teachers II

CHM 52500 - Intermediate Analytical Chemistry

CHM 52800 - Principles and Practice of NMR

CHM 53300 - Introductory Biochemistry

CHM 53400 - Introductory Biochemistry

CHM 53500 - Biochemistry Laboratory

CHM 54200 - Inorganic Chemistry

CHM 54800 - Radiochemistry

CHM 56100 - Fundamental Organic Chemistry

CHM 56300 - Organic Chemistry

CHM 57700 - Physical Chemistry

CHM 57800 - Physical Chemistry

CHM 59900 - Special Assignments

CLAS C205 - Classical Mythology

CLAS C405 - Comparative Mythology

CMLT C217 - Detective and Mystery Literature

CMLT C255 - Modern Literature and the Other Arts: An Introduction

CMLT C333 - Romanticism

CMLT C337 - The 20th Century: Tradition and Change

CMLT C340 - Women in World Literature

CNET 19000 - Experience in Construction I

CNET 27600 - Specs, Contracts, and Codes

CNET 28000 - Quantity Estimating

CNET 29000 - Experience in Construction II

CNET 34400 - Constructed Project Quality I

CNET 34800 - Senior Capstone Design Project I

CNET 39000 - Experience in Construction III

CNET 44100 - Construction Operations

CNET 44200 - Costs Estimating

CNET 44300 - Engineered Construction

CNET 44500 - Construction Project Management I

CNET 44800 - Senior Capstone Design Project II

CNET 45400 - Construction Legal Aspects

CNET 45500 - Company Management

CNET 45700 - Construction Safety

CNET 49900 - Construction Engineering Technology

COAS W111 - Critical Inquiry

COAS W398 - Internship in Professional Practice

COM 11400 - Fundamentals of Speech Communication

COM 11400 - Fundamentals of Speech Communication-Honors

COM 12000 - Introduction to Communication Technology and Communication Fields

COM 21000 - Debating Public Issues

COM 21200 - Approaches to the Study of Interpersonal Communication

COM 21200 - Approaches to the Study of Interpersonal Communication (Honors Course)

COM 24800 - Introduction to Media Criticism and Analysis

COM 25000 - Mass Communication and Society

COM 25300 - Introduction to Public Relations

COM 30000 - Introduction to Communication Research Methods

COM 30300 - Intercultural Communication

COM 30800 - Applied Communication

COM 31000 - Family Communication

COM 31200 - Rhetoric in the Western World

COM 31400 - Advanced Presentational Speaking

COM 31500 - Speech Communication of Technical Information

COM 31600 - Controversy in America-Honors

COM 31600 - Controversy in American Society

COM 31800 - Principles of Persuasion

COM 32000 - Small Group Communication

COM 32300 - Business and Professional Speaking

COM 32400 - Introduction to Organizational Communication

COM 32500 - Interviewing: Principles and Practice

COM 33000 - Theories of Mass Communication

COM 33100 - Audio Production

COM 33200 - Television Studio Production

COM 33300 - Film Production

COM 33400 - Journalism for the Electronic Mass Media

COM 33700 - Advanced Digital Video Production

COM 33800 - Documentary or Experimental Film and Video

COM 35200 - Mass Communication Law

COM 40100 - Rhetorical Criticism

COM 41000 - Gender Roles and Communication

COM 42100 - Media Genres

COM 42200 - Women, Men, and Media

COM 43100 - Practicum in Radio

COM 43200 - Practicum in Television

COM 43300 - Practicum in Film

COM 43600 - Script Writing

COM 47100 - Communicating Peace

COM 48000 - Senior Seminar in Communication

COM 49000 - Internship in Communication

COM 49100 - Special Topics in Communication

COM 49100 - Special Topics in Communication-Honors

COM 49300 - Interdisciplinary Undergraduate Seminar

COM 50200 - Classroom Communication

COM 50700 - Introduction to Semiotics

COM 50800 - Nonverbal Communication in Human Interaction

COM 51200 - Theories of Interpersonal Communication

COM 51500 - Persuasion in Social Movements

COM 51600 - Analysis of Persuasive Messages

COM 51700 - Communication in Politics

COM 51800 - Theories of Persuasion

COM 52000 - Small Group Communication

COM 52100 - Theories of Rhetoric

COM 52200 - History and Criticism of Public Communication

COM 52300 - Communication in Personal Relationships

COM 52500 - Advanced Interviewing

COM 52700 - Introduction to Cultural Studies

COM 53100 - Special Topics in Mass Communication

COM 53200 - Telecommunication Systems Management

COM 53400 - Comparative Telecommunication Systems

COM 53700 - Educational/Instructional Television

COM 55700 - Legal Dimensions of Communication

COM 55900 - Current Trends in Mass Communication Research

COM 56000 - Rhetorical Dimensions of Mass Media

COM 56300 - Public Policy in Telecommunication

COM 57400 - Organizational Communication

COM 57600 - Health Communication

COM 58200 - Descriptive/Experimental Research in Communication

COM 58400 - Historical/Critical Research in Communication

COM 59000 - Directed Study of Special Problems

COM 59700 - Special Topics in Communication

COM 59800 - Synthesis Paper Research

CPET 10100 - Electrical Circuits

CPET 16100 - Analog Electronics

CPET 18100 - Computer Operating Systems Basics

CPET 19000 - Problem Solving with MATLAB

CPET 21300 - Web-based Analysis and Design

CPET 28100 - Local Area Networks and Management

CPET 29900 - Selected Computer Engineering Technology Subjects

CPET 35500 - Data Communications and Networking

CPET 36400 - Networking Security

CPET 37500 - Microprocessor-Based Digital Systems

CPET 38400 - Wide Area Network Design

CPET 41100 - Microcomputer Interfacing

CPET 47000 - Technology Project Management

CPET 47200 - Automatic Control Systems

CPET 48600 - Robotics and Control Electronics with Microcomputers

CPET 49000 - Senior Design Project I

CPET 49100 - Senior Design Project II

CPET 49300 - Wireless Networking

CPET 49400 - Java Programming Applications

CPET 49500 - Web Engineering and Design

CPET 49900 - Computer Engineering Technology

CPET 54500 - Service-Oriented Architecture and Enterprise Applications

CPET 56500 - Mobile Computing Systems

CPET 57500 - Management of Technology

CPET 58100 - Workshop In Computer Engineering Technology

CPET 59000 - Special Problems in IT and Advanced Computer Applications

CPET 59800 - Directed MS Project

CPT 55500 - Advanced Network Security

CS 11200 - Survey of Computer Science

CS 11400 - Introduction to Visual Basic

CS 15500 - COBOL Programming

CS 16000 - Introduction to Computer Science I

CS 16000 - Introduction to Computer Science I-Honors

CS 16100 - Introduction to Computer Science II

CS 17000 - C and Data Structures

CS 17200 - Introduction to C

CS 20300 - Advanced Visual Basic

CS 22700 - Introduction to C Programming

CS 22800 - Object Oriented Programming in C++

CS 23200 - Introduction to C and Unix

CS 25600 - Applications Software Project

CS 26000 - Data Structures

CS 27000 - Assembly Language

CS 27100 - Computer Architecture

CS 27400 - Data Communications

CS 28000 - Survey of Information Technology

CS 29200 - Intermediate Topics in Computer Science

CS 29500 - Industrial Practicum

CS 30600 - Computers in Society

CS 31000 - Topics In Computer Languages

CS 32100 - Introduction to Computer Graphics

CS 33100 - Introduction to C++ and Object-Oriented Programming

CS 35000 - Programming Language Design

CS 36000 - Software Engineering

CS 36400 - Introduction to Database Systems

CS 36500 - Advanced Database Systems

CS 36600 - Structured Analysis Techniques

CS 36700 - Structured Design Techniques

CS 36800 - Human-Computer Interaction

CS 37000 - Systems Programming

CS 37200 - Web Application Development

CS 37400 - Computer Networks

CS 37600 - Advanced Computer Architecture

CS 38000 - Artificial Intelligence

CS 38400 - Numerical Analysis

CS 39500 - Industrial Practice I

CS 42100 - Advanced Computer Graphics

CS 44500 - Computer Security

CS 46000 - Capstone Design and Professional Practice

CS 46400 - Computer Systems Planning

CS 46600 - Strategic Issues for Information Systems

CS 46700 - Project Management

CS 47200 - Operating Systems Design

CS 47400 - Compiler Construction

CS 48600 - Analysis of Algorithms

CS 48800 - Theory of Computation

CS 49200 - Topics in Computer Science

CS 49400 - Directed Study

CS 49500 - Cooperative Experience

CS 50300 - Operating Systems

CS 51400 - Numerical Analysis

CS 52000 - Computational Methods in Analysis

CS 54300 - Introduction to Simulation and Modeling of Computer Systems

CS 54700 - Information Storage and Retrieval and Natural Language Processing

CS 57200 - Heuristic Problem Solving

CS 58000 - Algorithm Design, Analysis, and Implementation

CS 59000 - Topics in Computer Science

CSD 11500 - Introduction to Communicative Disorders

CSD 18100 - First Course in American Sign Language

CSD 18200 - Second Course in American Sign Language

CSD 30200 - Acoustic Bases of Speech and Hearing

CSD 30400 - Anatomy and Physiology of the Speech and Hearing Mechanism

CSD 30600 - Introduction to Phonetics

CSD 30900 - Language Development

CSD 32100 - Introduction to Phonological Disorders in Children

CSD 39900 - Directed Study in Audiology and Speech Sciences

CSD 40500 - Augmentative and Computer Applications in Speech and Language

CSD 41600 - Introduction to Assessment of Communication Disorders

CSD 42000 - Introduction to Developmental Speech and Language Disorders

CSD 43000 - Speech-Language Disorders in Healthcare Settings

CSD 44900 - Introduction to Clinical Practice in Speech-Language Pathology

CSD 46000 - Introduction to Assessment Audiology

CSD 54900 - Clinical Practice in Speech/Language Pathology I

CSD 55000 - Aural Rehabilitation for Adults

CSD 55100 - Aural Rehabilitation for Children

CSD 59000 - Directed Study of Special Problems

DANC 10100 - Modern Dance I

DANC 10200 - Ballet I

DANC 10300 - Jazz Dance I

DANC 12100 - Tap Dance I

DANC 13400 - The Study of Movement in Human Society

DANC 13600 - Teaching Dance: Theories and Methods

DANC 20100 - Modern Dance II

DANC 20200 - Ballet II

DANC 20300 - Jazz Dance II

DANC 22100 - Tap Dance II

DANC 24000 - Fundamentals of Dance Composition

DANC 25100 - Dance History

DANC 39000 - Introduction To Dance

DAST A111 - Oral Pathology, Physiology, and Anatomy

DAST A112 - Dental and Medical Emergencies and Therapeutics

DAST A121 - Microbiology and Asepsis Technique

DAST A122 - Introduction to Dentistry

DAST A131 - Dental Materials I

DAST A132 - Dental Materials II

DAST A141 - Preventive Dentistry and Nutrition

DAST A171 - Clinical Science I

DAST A172 - Clinical Science II

DAST A182 - Practice Management, Ethics, and Jurisprudence

DAST A190 - Expanded Functions (Restorative)

DAST A300 - Special Topics in Dental Education

DHYG D401 - Clinical Supervision

DHYG D402 - Clinical Supervision

DHYG H211 - Head and Neck Anatomy

DHYG H214 - Oral Anatomy

DHYG H215 - Pharmacology and Therapeutics (lecture)

DHYG H216 - Chemistry and Nutrition- First Year

DHYG H217 - Preventive Dentistry

DHYG H218 - Fundamentals of Dental Hygiene (lecture and lab)

DHYG H219 - Clinical Practice I

DHYG H221 - Clinical Dental Hygiene Procedures

DHYG H222 - Advanced Clinical Dental Hygiene Procedures

DHYG H242 - Introduction to Dentistry - Specialties

DHYG H301 - Clinical Practice II

DHYG H302 - Clinical Practice III

DHYG H303 - Radiology (lecture and lab)

DHYG H304 - Oral Pathology

DHYG H305 - Radiology Clinic I

DHYG H306 - Radiology Clinic II

DHYG H307 - Radiology Clinic III

DHYG H308 - Dental Materials

DHYG H309 - Practice of Community Dental Hygiene

DHYG H310 - Technical Writing

DHYG H320 - Practice Management, Ethics, and Jurisprudence

DHYG H321 - Periodontics

DHYG H344 - Senior Hygiene Seminar

DHYG H347 - Dental Public Health

DHYG H405 - Advanced Dental Sciences

DLTP D111 - History, Ethics, Organization

DLTP D112 - Dental Anatomy

DLTP D113 - Basic Physics, Chemistry, and Dental Materials

DLTP D114 - Occlusion

DLTP D125 - Crown and Bridge Prosthodontics I

DLTP D126 - Orthodontics/ Pedodontics Appliances I

DLTP D127 - Complete Denture Prosthodontics I

DLTP D128 - Partial Denture Prosthodontics I

DLTP D129 - Dental Ceramics I

DLTP D215 - Crown and Bridge Prosthodontics II

DLTP D216 - Orthodontics/ Pedodontics Appliances II

DLTP D217 - Complete Denture Prosthodontics II

DLTP D218 - Partial Denture Prosthodontics II

DLTP D219 - Dental Ceramics II

DLTP D221 - Dental Laboratory Business Procedures

DLTP D222 - Practical Laboratory Experience

DLTP D225 - Specialty in Crown and Bridge Prosthodontics

DLTP D226 - Specialty in Orthodontics/ Pedodontics

DLTP D227 - Specialty in Complete Denture Prosthodontics

DLTP D228 - Specialty in Partial Denture Prosthodontics

DLTP D229 - Specialty in Dental Ceramics

EALC C101 - Elementary Chinese I

EALC C102 - Elementary Chinese II

EALC C201 - Second-Year Chinese I

EALC C202 - Second-Year Chinese II

EALC E232 - China: The Enduring Heritage

EALC J101 - Elementary Japanese I

ECE 20100 - Linear Circuit Analysis I

ECE 20200 - Linear Circuit Analysis II

ECE 20700 - Electronic Measurement Techniques

ECE 20800 - Election Devices and Design Laboratory

ECE 25500 - Introduction to Electronic Analysis and Design

ECE 27000 - Introduction to Digital System Design

ECE 29100 - Industrial Practice I

ECE 29200 - Industrial Practice II

ECE 29300 - Measurements and Instrumentation

ECE 30100 - Signals and Systems

ECE 30200 - Probabilistic Methods in Electrical Engineering

ECE 31100 - Electric and Magnetic Fields

ECE 33300 - Automatic Control Systems

ECE 35100 - Software Engineering

ECE 35800 - Introduction to VHDL Programing

ECE 36200 - Microprocessor Systems and Interfacing

ECE 36800 - Data Structures

ECE 37300 - Numerical Methods for Engineers

ECE 38200 - Feedback System Analysis and Design

ECE 38700 - Electronics and System Engineering Through Robotics

ECE 38800 - Electronics and System Engineering Through Robotics Lab

ECE 39300 - Industrial Practice III

ECE 39400 - Industrial Practice IV

ECE 39500 - Industrial Practice V

ECE 40500 - Senior Engineering Design I

ECE 40600 - Senior Engineering Design II

ECE 41800 - Introduction to Computer Graphics

ECE 42500 - Electric Machines,

ECE 42800 - Modern Communication Systems

ECE 43600 - Digital Signal Processing

ECE 43700 - Computer Design and Prototyping

ECE 44200 - Transmission of Information

ECE 44300 - Communications Laboratory

ECE 44700 - Modern Filter Design

ECE 46000 - Power Electronics

ECE 46500 - Embedded Microprocessors

ECE 46700 - Advanced Digital Systems/ Embedded Microcontroller Design Laboratory

ECE 46900 - Operating Systems Engineering

ECE 47400 - Introduction to Radio Frequency Circuit Design

ECE 48300 - Digital Control Systems - Analysis and Design

ECE 48500 - Embedded Real-Time Operating Systems

ECE 49500 - Selected Topics in Electrical Engineering

ECE 49600 - Electrical Engineering Projects

ECE 49700 - Research in Electrical Engineering I

ECE 49800 - Research in Electrical Engineering II

ECE 53500 - Transmission and Distribution of Electric Energy

ECE 54300 - Wireless Communication Networks

ECE 54700 - Introduction to Computer Communication Networks

ECE 56500 - Computer Architecture

ECE 58900 - State Estimation and Parameter Identification of Stochastic Systems

ECE 59500 - Selected Topics in Electrical Engineering

ECET 10100 - Electrical Circuits

ECET 10200 - Electrical Circuits I

ECET 10700 - Introduction to Circuit Analysis

ECET 11100 - Digital Circuits

ECET 11400 - Introduction to Visual Basic

ECET 14600 - Digital Circuits II

ECET 15200 - Electrical Circuits II

ECET 15700 - Electronics Circuit Analysis

ECET 16100 - Analog Electronics

ECET 20400 - Analog Electronics II

ECET 20500 - Introduction to Microprocessors

ECET 20700 - AC Electronics Circuit Analysis

ECET 20900 - Introduction to Microcontrollers

ECET 21100 - Electrical Machines and Controls

ECET 21500 - Introduction to Industrial Electronics

ECET 23100 - Electrical Power and Controls

ECET 23400 - PC Systems I

ECET 26400 - C Programming Language Applications

ECET 29100 - Industrial Practice I

ECET 29200 - Industrial Practice II

ECET 29500 - Industrial Practicum

ECET 29600 - Electronic System Fabrication

ECET 29900 - Selected Electrical Engineering Technology Subject

ECET 30200 - Introduction to Control Systems

ECET 30300 - Communications I

ECET 30500 - Advanced Microprocessors

ECET 30700 - Analog Network Signal Processing

ECET 31200 - Power Electronics

ECET 33100 - Generation and Transmission of Electrical Power

ECET 34600 - Advanced Digital Circuits

ECET 35500 - Data Communications and Networking

ECET 35700 - Real-Time Digital Signal Processing

ECET 36100 - Introduction to PLC and Pneumatic Systems

ECET 36500 - Electrical Measurements

ECET 36800 - Linear Integrated Circuits

ECET 37200 - Process Control

ECET 37500 - Computer Controlled System Designs

ECET 37700 - Introduction to Fiber Optics

ECET 38200 - C++ Object Oriented Programming for Industrial Applications

ECET 39300 - Industrial Practice III

ECET 39400 - Industrial Practice IV

ECET 39500 - Industrial Practice V

ECET 40300 - Communications II

ECET 41100 - Microcomputer Interfacing

ECET 41400 - Wireless Communications

ECET 43400 - PC Systems II

ECET 43500 - Electronic Industrial Controls

ECET 45300 - Topics in Telecommunications

ECET 45400 - Microprocessors

ECET 46600 - Windows Programming for Industrial Applications

ECET 46800 - Microwave Solid State Devices

ECET 47000 - Technology Project Management

ECET 47200 - Automatic Control Systems

ECET 47300 - Microwaves

ECET 48600 - Robotics and Control Electronics with Microcomputers

ECET 49000 - Senior Design Project, Phase I

ECET 49100 - Senior Design Project, Phase II

ECET 49900 - Electrical Engineering Technology

ECET 58100 - Workshop in Electrical and Computer Engineering Technology

ECET 59000 - Special Problems in Electrical and Computer Engineering Technology

ECON E101 - Survey of Current Economic Issues and Problems

ECON E200 - Fundamentals of Economics

ECON E201 - Introduction to Microeconomics

ECON E202 - Introduction to Macroeconomics

ECON E202 - Introduction to Macroeconomics (Honors Course)

ECON E270 - Introduction to Statistical Theory in Economics and Business I

ECON E306 - Undergraduate Seminar in Economics

ECON E321 - Intermediate Microeconomic Theory

ECON E322 - Intermediate Macroeconomic Theory

ECON E323 - Urban Economics

ECON E328 - Game Theory Goes to the Movies

ECON E340 - Introduction to Labor Economics

ECON E346 - Economics of Gender

ECON E346 - Economics of Gender (Honors Course)

ECON E350 - Money and Banking

ECON E360 - Public Finance: Survey

ECON E385 - Economics of Industry

ECON E406 - Senior Seminar

ECON E420 - History of Economic Thought

ECON E430 - Introduction to International Economics

ECON E445 - Collective Bargaining: Practice and Problems

ECON E446 - Public Policy in Labor Relations

ECON E472 - Introduction to Econometrics

ECON S103 - Introduction to Microeconomics-Honors

ECON S103 - Introduction to Microeconomics-Honors (Honors Course)

EDUA F300 - Topical Exploration in Education

EDUA F400 - Topical Exploration in Education

EDUA G250 - Life Skills for Personal and Interpersonal Development

EDUC E317 - Practicum in Early Childhood Education

EDUC E325 - Social Studies in the Elementary Schools

EDUC E328 - Science in the Elementary Schools

EDUC E330 - Infant Learning Environments

EDUC E333 - Inquiry in Mathematics and Science

EDUC E335 - Introduction to Early Childhood Education

EDUC E336 - Play as Development

EDUC E337 - Classroom Learning Environments

EDUC E338 - The Early Childhood Educator

EDUC E339 - Methods of Teaching Language Arts

EDUC E340 - Methods of Teaching Reading I

EDUC E341 - Methods of Teaching Reading II

EDUC E346 - Discipline/Parenting for Young Children

EDUC E347 - Language Arts for Early Childhood

EDUC E370 - Language Arts & Reading I

EDUC E371 - Language Arts and Reading II

EDUC E490 - Research in Elementary Education

EDUC F200 - Examining Self as a Teacher

EDUC F400 - Honors Seminar

EDUC H340 - Education and American Culture

EDUC H340 - Education and American Culture (Honors Course)

EDUC K201 - Schools, Society, and Exceptionality

EDUC K205 - Introduction to Exceptional Children

EDUC K206 - Teaching Methods for Students with Special Needs

EDUC K305 - Teaching the Exceptional Learner in the Elementary School

EDUC K306 - Teaching Students with Special Needs in Secondary Classrooms

EDUC K307 - Methods for Teaching Students with Special Needs

EDUC K350 - Introduction to Mental Retardation

EDUC K351 - Vocational Assessment and Instruction for Special Needs Secondary Students

EDUC K352 - Education of Children with Learning Problems (LD and EMR)

EDUC K360 - Behavioral Characteristics of the Mentally Retarded

EDUC K370 - Introduction to Learning Disabilities

EDUC K371 - Assessment and Individualized Instruction in Reading and Mathematics

EDUC K400 - Computers for Students with Disabilities

EDUC K410 - Trends and Issues in Special Education

EDUC K441 - Transition Across the Lifespan

EDUC K453 - Management of Academic and Social Behavior

EDUC K465 - Service Delivery Systems and Consultation Strategies

EDUC M101 - Laboratory/Field Experience

EDUC M201 - Laboratory/Field Experience

EDUC M301 - Laboratory/Field Experience

EDUC M323 - The Teaching of Music in the Elementary Schools

EDUC M330 - Foundations of Art Education and Methods I

EDUC M333 - Art Experiences for the Elementary Teacher

EDUC M401 - Laboratory/Field Experience

EDUC M425 - Student Teaching: Elementary

EDUC M430 - Foundations of Art Education and Methods II

EDUC M443 - Methods of Teaching High School Social Studies

EDUC M445 - Methods of Teaching Foreign Languages

EDUC M447 - Methods of Teaching High School English

EDUC M448 - Methods of Teaching High School Mathematics

EDUC M449 - Methods of Teaching Science in the Secondary Schools

EDUC M470 - Practicum

EDUC M474 - Undergraduate Seminar in Music Education

EDUC M478 - Methods of Teaching High School Speech

EDUC M480 - Student Teaching in the Secondary School

EDUC M482 - Student Teaching: All Grades

EDUC M501 - Lab/Field Experience

EDUC N343 - Mathematics in the Elementary School

EDUC P249 - Growth and Development in Early Childhood

EDUC P250 - General Educational Psychology

EDUC P251 - Educational Psychology for Elementary Teachers

EDUC P252 - Educational Psychology for Junior High/Middle School Teachers

EDUC P253 - Educational Psychology for Secondary Teachers

EDUC P254 - Educational Psychology for Teachers of All Grades

EDUC P315 - Child Development in Early Childhood

EDUC P375 - Classroom and Community Leadership

EDUC Q200 - Introduction to Scientific Inquiry

EDUC Q400 - Man and Environment: Instructional Methods

EDUC S405 - The Middle and Junior High School

EDUC S490 - Research in Secondary Education

EDUC W200 - Using Computers for Education

EDUC W210 - Introduction to Computer- Based Education

EDUC W310 - Computer-Based Teaching Methods

EDUC W410 - Practicum in Computer- Based Education

EDUC X210 - Career Planning

EDUC X401 - Critical Reading in the Content Area

ENG G104 - Language Awareness

ENG G205 - Introduction to the English Language

ENG G206 - Introduction to the Study of Grammar

ENG G301 - History of the English Language

ENG G302 - Structure of Modern English (TESOL)

ENG G310 - Social Speech Patterns

ENG G405 - Studies in English Language

ENG G432 - Second Language Acquisition

ENG L101 - Western World Masterpieces I: Ancient to Renaissance

ENG L102 - Western World Masterpieces II: Renaissance to Modern

ENG L103 - Introduction to Drama

ENG L104 - Introduction to Fiction

ENG L106 - Introduction to Poetry

ENG L107 - Masterpieces of Asia

ENG L108 - Introduction to Contemporary Literature

ENG L113 - Introduction to African Literature

ENG L150 - Representative American Writers

ENG L202 - Literary Interpretation

ENG L207 - Women and Literature

ENG L220 - Introduction to Shakespeare

ENG L230 - Introduction to Science Fiction

ENG L232 - Topics in Literature and Culture

ENG L250 - American Literature Before 1865

ENG L251 - American Literature Since 1865

ENG L301 - Critical and Historical Survey of English Literature I

ENG L302 - Critical and Historical Survey of English Literature II

ENG L304 - Old English Language and Literature

ENG L305 - Chaucer

ENG L306 - Middle English Literature

ENG L308 - Elizabethan Drama and Its Background

ENG L309 - Elizabethan Poetry

ENG L315 - Major Plays of Shakespeare

ENG L317 - English Poetry of the Early 17th Century

ENG L318 - Milton

ENG L322 - English Literature, 1660-1789

ENG L332 - Romantic Literature

ENG L335 - Victorian Literature

ENG L345 - 20th Century British Poetry

ENG L346 - 20th Century British Fiction

ENG L347 - British Fiction to 1800

ENG L348 - 19th Century British Fiction

ENG L351 - American Literature 1800-1865

ENG L352 - American Literature 1865-1914

ENG L354 - American Literature Since 1914

ENG L355 - American Fiction to 1900

ENG L357 - 20th Century American Poetry

ENG L358 - 20th Century American Fiction

ENG L362 - Modern Drama

ENG L364 - Native American Literature

ENG L366 - Modern Drama: English, Irish, American, and Post-Colonial

ENG L369 - Studies in British and American Authors

ENG L371 - Introduction to Criticism

ENG L372 - Contemporary American Fiction

ENG L378 - Studies in Women and Literature

ENG L379 - American Ethnic and Minority Literature

ENG L381 - Recent Writing

ENG L388 - Studies in Irish Literature and Culture

ENG L390 - Children's Literature

ENG L391 - Literature for Young Adults

ENG L392 - Topics in Children's Literature

ENG L399 - Junior Seminar

ENG L495 - Individual Reading in English

ENG L499 - Senior Independent Study for Honors Students

ENG R150 - Reading/Learning Techniques I

ENG R151 - Reading/Learning Techniques II

ENG R152 - Reading/Learning Techniques III

ENG R185 - Developmental Reading: Speed Reading

ENG S101 - Honors Western World Masterpieces I: Ancient to Renaissance

ENG S104 - Honors Introduction to Fiction

ENG S108 - Honors Introduction to Contemporary Literature

ENG S203 - Honors Creative Writing

ENG S233 - Honors Intermediate Expository Writing

ENG S234 - Honors Technical Writing

ENG S331 - Honors Business and Administrative Writing

ENG S390 - Honors Children's Literature

ENG S462 - Honors Studies in Rhetoric and Composition

ENG W103 - Introductory Creative Writing

ENG W115 - Basic English Composition I

ENG W116 - Basic English Composition II

ENG W129 - Introductory Elementary Composition

ENG W131 - Elementary Composition I

ENG W140 - Elementary Composition Honors

ENG W203 - Creative Writing

ENG W232 - Introduction to Business Writing

ENG W233 - Intermediate Expository Writing

ENG W234 - Technical Report Writing

ENG W235 - Introduction to Web Authoring

ENG W301 - Writing Fiction

ENG W303 - Writing Poetry

ENG W310 - Language and the Study of Writing

ENG W331 - Business and Administrative Writing

ENG W350 - Advanced Expository Writing

ENG W364 - Publications Management

ENG W365 - Theories and Practices of Editing

ENG W367 - Writing for Multiple Media

ENG W372 - Composing the Self

ENG W376 - Writers Reading

ENG W395 - Individual Study of Writing

ENG W397 - Writing Center Theory and Practice

ENG W398 - Internship in Writing

ENG W400 - Issues in Teaching Writing

ENG W401 - Advanced Fiction Writing

ENG W403 - Advanced Poetry Writing

ENG W405 - Writing Prose - Nonfiction

ENG W420 - Argumentative Writing

ENG W421 - Technical Writing Projects

ENG W422 - Creativity and Community

ENG W425 - Research Methods for Professional Writers

ENG W460 - Introduction to Literacy Studies

ENG W462 - Studies in Rhetoric and Composition

ENG W490 - Writing Seminar

ENGR 10000 - First Year Engineering Lectures

ENGR 10100 - Introduction to Engineering

ENGR 12000 - Graphical Communications and Spatial Analysis

ENGR 12100 - Computer Tools for Engineers

ENGR 19500 - First Year Engineering Projects

ENGR 19800 - Industrial Practicum

ENGR 19900 - Introduction to Engineering Design

ENGR 22100 - C and C++ Programming for Engineers

ENGR 22200 - Object Oriented Programming

ENGR 41000 - Interdisciplinary Senior Engineering Design I

ENGR 41100 - Interdisciplinary Senior Engineering Design II

ENTM 20600 - General Applied Entomology

ENTM 20700 - General Applied Entomology Laboratory

ET 19000 - Statics

ET 20000 - Strength of Materials

ETCS 10100 - Introduction to Engineering, Technology, and Computer Science

ETCS 10600 - Introduction to Computers

FILM K101 - Introduction to Film

FILM K201 - Survey of Film History

FILM K302 - Genre Study in Film

FILM K390 - The Film and Society

FILM S302 - Genre Study in Film - Honors

FINA A170 - Women Artists/The Visual Arts

FINA A270 - Women in the History of Art

FINA A345 - American Art to 1913

FINA A348 - American Architecture

FINA A447 - Modernism and Anti- Modernism in American Art, 1900-1945.

FINA H101 - Art Appreciation

FINA H111 - Ancient and Medieval Art

FINA H112 - Renaissance Through Modern Art

FINA H311 - Art of the Ancient World

FINA H312 - Art of the Medieval World

FINA H313 - Art of the Renaissance and Baroque

FINA H314 - Art of the Modern World

FINA H390 - Topics in Art History

FINA H401 - Art Theory IV

FINA H411 - 19th Century Art I

FINA H412 - 19th Century Art II

FINA H413 - 20th-Century Art: 1900-1924

FINA H414 - 20th Century Art: 1925-Present

FINA H415 - Art of Pre-Columbian America

FINA H490 - Topics in Art History

FINA H495 - Readings and Research in Art History

FINA N108 - Introduction to Drawing for Nonmajors

FINA P121 - Drawing Fundamentals I-II

FINA P122 - Drawing Fundamentals I-II

FINA P133 - Metalsmithing Fundamentals for Non-Art Majors

FINA P151 - Design Fundamentals I-II

FINA P152 - Design Fundamentals I-II

FINA P223 - Figure Drawing I

FINA P225 - Painting Fundamentals I

FINA P226 - Painting Fundamentals II

FINA P231 - Sculpture Fundamentals

FINA P233 - Metalsmithing Fundamentals

FINA P235 - Ceramics Fundamentals

FINA P241 - Printmaking Fundamentals

FINA P321 - Advanced Drawing I

FINA P322 - Advanced Drawing II

FINA P325 - Advanced Painting I

FINA P326 - Advanced Painting II

FINA P331 - Advanced Sculpture I

FINA P332 - Advanced Sculpture II

FINA P333 - Advanced Metalsmithing I

FINA P334 - Advanced Metalsmithing II

FINA P335 - Advanced Ceramics I

FINA P336 - Advanced Ceramics II

FINA P337 - Site Specific Ceramic Artworks: The Design, Construction, and Installation of a Ceramic Artwork

FINA P341 - Advanced Printmaking I

FINA P342 - Advanced Printmaking II

FINA P390 - Topics in Studio Fine Art

FINA P421 - Advanced Drawing III

FINA P422 - Advanced Drawing IV

FINA P425 - Advanced Painting III

FINA P426 - Advanced Painting IV

FINA P431 - Advanced Sculpture III

FINA P432 - Advanced Sculpture IV

FINA P433 - Advanced Metalsmithing III

FINA P434 - Advanced Metalsmithing IV

FINA P435 - Advanced Ceramics III

FINA P436 - Advanced Ceramics IV

FINA P441 - Advanced Printmaking III

FINA P442 - Advanced Printmaking IV

FINA P450 - Senior Project

FINA P490 - Topics in Studio Fine Arts

FINA P495 - Independent Study in Fine Arts

FINA S105 - Introduction to Design

FINA S165 - Ceramics for Nonmajors

FINA S462 - B.F.A. Ceramics: Clay Body and Glaze Preparation

FINA T255 - Crafts and Design

FNN 10600 - Profession of Dietetics

FNN 20300 - Foods Selection and Preparation

FNN 20400 - Food, History & Culture

FNN 30200 - Nutrition Education

FNN 30300 - Essentials of Nutrition

FNN 30400 - Nutrition's Place in Hospitality

FNN 40300 - Advanced Nutrition: Food from Farm to Fork

FNR 10300 - Introduction to Environmental Conservation

FNR 50500 - Molecular Ecology and Evolution

FNR 52300 - Aquaculture

FOLK F101 - Introduction to Folklore

FOLK F111 - Introduction to World Folk Music

FOLK F131 - Introduction to Folklore in the United States

FOLK F205 - Folklore in Video and Film

FOLK F220 - Introduction to American Folklore

FOLK F230 - Music in Social Movements

FOLK F251 - Folklore Methods and Theories

FOLK F252 - Folklore and the Humanities

FOLK F254 - Social History of Rock and Roll

FOLK F305 - Asian Folklore

FOLK F310 - American Urban and Ethnic Folklore

FOLK F350 - Folklore and Women

FOLK F352 - Native American Folklore

FOLK F354 - African American Folklore/Folklife/FOLK Music

FOLK F378 - Irish Folk Culture

FOLK F391 - Indiana Folklife

FOLK F400 - Individual Study in Folklore

FOLK F404 - Topics in Folklore

FOLK F425 - Folklore in Its Literary Relationships

FOLK F430 - Advanced Study of Folklore and Related Disciplines

FOLK F465 - Ballads and Folksongs

FOLK F487 - The Folk Roots of American Popular Music

FREN F111 - Elementary French I

FREN F112 - Elementary French II

FREN F113 - Accelerated First Year French

FREN F203 - Second-Year French I

FREN F204 - Second-Year French II

FREN F213 - Second-Year French Composition

FREN F305 - Chefs-D'Oeuvre de la Litterature Francaise I

FREN F306 - Chefs-D'Oeuvre de la Litterature Francaise II

FREN F310 - Topics in French Literature in Translation

FREN F315 - Phonetics

FREN F317 - French Language Skills I

FREN F318 - French Language Skills II

FREN F325 - Oral French for Teachers

FREN F326 - French in the Business World

FREN F329 - Phonetics and Pronunciation

FREN F330 - Introduction to Translating French and English

FREN F340 - Introduction to Contemporary French Society

FREN F356 - Introduction to French Cinema

FREN F408 - Women in French Literature

FREN F410 - French Literature of the Middle Ages

FREN F413 - The French Renaissance

FREN F423 - Tragedie Classique

FREN F424 - Comedie Classique

FREN F425 - Prose et Poesie du Dix- Septieme Siecle

FREN F440 - Medieval and Renaissance French Literature

FREN F442 - La Poesie Francaise et Francophone

FREN F443 - 19th Century Novel I

FREN F444 - 19th Century Novel II

FREN F446 - Poesie du Dix-Neuvieme Siecle

FREN F450 - Colloquium in French Studies

FREN F453 - Litterature Contemporaine I

FREN F454 - Litterature Contemporaine II

FREN F459 - L'Autobiographie

FREN F460 - French Fiction in Film

FREN F463 - Civilisation Francaise I

FREN F464 - Civilisation Francaise II

FREN F474 - Theme ET Version

FREN F495 - Individual Reading in French Literature

FREN F498 - Foreign Study in France

FREN W399 - Internship in Modern Foreign Language

FWAS H201 - Humanities I: The Ancient World

FWAS H202 - Humanities II: Foundations of the Modern Western World

GEOG G107 - Physical Systems of the Environment

GEOG G109 - Weather and Climate

GEOG G237 - Cartography and Geographic Information

GEOG G315 - Environmental Conservation

GEOL G100 - General Geology

GEOL G103 - Earth Science: Materials and Processes

GEOL G104 - Earth Science: Evolution of the Earth

GEOL G108 - Selected Earth Science Topics

GEOL G113 - Directed Study in Earth Science

GEOL G210 - Oceanography

GEOL G211 - Introduction to Paleobiology

GEOL G221 - Introductory Mineralogy

GEOL G222 - Introduction to Petrology

GEOL G300 - Environmental and Urban Geology

GEOL G305 - Geologic Fundamentals in Earth Science

GEOL G319 - Elementary Field Geology

GEOL G323 - Structural Geology

GEOL G334 - Principles of Sedimentology and Stratigraphy

GEOL G406 - Introduction to Geochemistry

GEOL G410 - Undergraduate Research in Geology

GEOL G411 - Invertebrate Paleontology

GEOL G412 - Introduction to Vertebrate Paleontology

GEOL G415 - Geomorphology

GEOL G420 - Regional Geology Field Trip

GEOL G425 - Scanning Electron Microscopy

GEOL G427 - Introduction to X-ray Mineralogy

GEOL G429 - Field Geology in the Rocky Mountains

GEOL G451 - Principles of Hydrogeology

GEOL G490 - Undergraduate Seminar

GEOL G499 - Honors Research in Geology Max.

GEOL L100 - General Geology Laboratory

GEOL S100 - General Geology Honors

GEOL S104 - Honors Earth Science: Evolution of the Earth

GEOL S222 - Honors Introduction to Petrology

GEOL S305 - Honors Fundamentals in Earth Science

GER G111 - Elementary German I

GER G112 - Elementary German II

GER G113 - First-Year German in One Semester

GER G203 - Second-Year German I

GER G204 - Second-Year German II

GER G305 - Introduction to German Literature: Types

GER G306 - Introduction to German Literature: Themes

GER G307 - Selected Works of Contemporary German Literature

GER G315 - Business German

GER G318 - German Language Skills I

GER G319 - German Language Skills II

GER G325 - German for Teachers

GER G362 - Introduction to Contemporary Germany

GER G363 - Deutsche Kulturgeschichte

GER G404 - Deutsche Literatur: Seit Der Romantik

GER G405 - Goethe: Life and Works

GER G411 - Advanced German: Grammar

GER G412 - Advanced German: Composition

GER G415 - Perspectives on German Literature

GER G418 - German Film and Popluar Culture

GER G422 - 19th Century German Literature

GER G425 - 20th Century German Literature

GER G452 - Senior Seminar

GER G463 - German Culture

GER G464 - Kultur Und Gesellschaft

GER G470 - German Folklore

GER G495 - Individual Readings in Germanic Literatures

GER W399 - Internship in Modern Foreign Languages

GERN G231 - Introduction to Gerontology

GERN G399 - Independent Study in Gerontology

GERN G494 - Gerontology Practicum

GERN G499 - Topics in Gerontology

HIST A301 - Colonial America

HIST A302 - Revolutionary America

HIST A303 - The United States from 1789 to 1865 I

HIST A304 - The United States from 1789 to 1865 II

HIST A306 - Sex Roles and Society in American History

HIST A308 - American Business History

HIST A309 - The South Before the Civil War

HIST A310 - Survey of American Indians I

HIST A311 - Survey of American Indians II

HIST A313 - Origins of Modern America

HIST A314 - Recent U.S. History I, 1917-1945

HIST A315 - Recent U.S. History II, 1945-Present

HIST A318 - The American West

HIST A321 - History of American Thought I

HIST A322 - History of American Thought II

HIST A345 - American Diplomatic History I

HIST A346 - American Diplomatic History II

HIST A349 - Afro-American History

HIST A351 - The United States in World War II

HIST A382 - The Sixties

HIST B351 - Western Europe in the Early Middle Ages

HIST B352 - Western Europe in the High/Late Middle Ages

HIST B355 - Europe: Louis XIV to French Revolution

HIST B361 - Europe in the 20th Century I

HIST B378 - History of Germany II

HIST C386 - Greek History

HIST C388 - Roman History

HIST C390 - The Decline and Fall of the Roman Empire

HIST C392 - History of Modern Near East

HIST C393 - Ottoman History

HIST D402 - Byzantine History and Civilization II

HIST D410 - Russian Revolutions and the Soviet Regime

HIST D426 - History of Balkans: 1914 to Present

HIST E100 - Issues in African History

HIST E331 - African History from Ancient Times to Empires and City States

HIST E332 - African History from Colonial Rule to Independence

HIST E336 - History of East Africa

HIST F341 - Latin America: Conquest and Empire

HIST F342 - Latin America: Evolution and Revolution

HIST F346 - Modern Mexico

HIST F416 - History of Slavery in the Americas

HIST F431 - 19th Century Latin American Intellectual History

HIST F432 - 20th Century Latin American Revolutions

HIST F447 - U.S.-Latin American Relations

HIST H105 - American History I

HIST H106 - American History II

HIST H113 - History of Western Civilization I

HIST H114 - History of Western Civilization II

HIST H201 - Russian Civilization I-II

HIST H202 - Russian Civilization I-II

HIST H205 - Ancient Civilization

HIST H217 - The Nature of History

HIST H222 - Renaissance and Reformation Europe

HIST H225 - Special Topics in History

HIST H228 - The Vietnam War

HIST H232 - The World in the 20th Century

HIST H260 - History of Women in the United States

HIST H496 - Internship in History

HIST J495 - Proseminar for History Majors

HIST K499 - Senior Honors Thesis

HIST S105 - American History Honors To 1877

HIST S106 - American History Honors Since 1877

HIST S113 - Honors History of Western Europe I

HIST S114 - Honors History of Western Europe II

HIST S232 - The World in the 20th Century - Honors

HIST T325 - Topics in History

HIST T335 - Topics in Non-Western History

HIST T425 - Topics in History

HIST T426 - Topics in History

HIST T495 - Undergraduate Reading in History

HON H100 - Freshman Honors Seminar

HON H101 - Ideas and Human Experience

HON H150 - Honors H-Option Contract

HON H200 - Interdepartmental Colloquium - Humanities

HON H201 - Interdepartmental Colloquium - Sciences

HON H202 - Interdepartmental Colloquium - Natural and Math Sciences

HON H250 - Honors H-Option Contract

HON H300 - Interdepartmental Colloquium

HON H301 - Interdepartmental Colloquium

HON H302 - Interdepartmental Colloquium

HON H350 - Honors H-Option Contract

HON H399 - Honors Independent Study

HON H450 - Honors H-Option Contract

HORT 10100 - Fundamentals of Horticulture

HPER A361 - Coaching of Football

HPER A362 - Coaching of Basketball

HPER A363 - Coaching of Baseball

HPER A364 - Coaching of Track and Field

HPER A370 - Coaching of Soccer

HPER A371 - Coaching of Volleyball

HPER A383 - Therapeutic Management of Sports Injuries

HPER A480 - Care and Prevention of Athletic Injuries

HPER A483 - Principles of Sports Officiating

HPER A484 - Inter-Scholastic Athletic Programs

HPER E105 - Badminton

HPER E111 - Basketball

HPER E113 - Billiards

HPER E117 - Bowling

HPER E119 - Personal Fitness

HPER E121 - Conditioning & Weight Training

HPER E133 - Fitness and Jogging I

HPER E135 - Golf

HPER E139 - Handball

HPER E148 - T'ai Chi Ch'uan

HPER E150 - Karate

HPER E151 - Self-Defense

HPER E155 - Modern Dance

HPER E159 - Racquetball

HPER E165 - Soccer

HPER E168 - Swimming for Nonswimmers

HPER E181 - Tennis

HPER E185 - Volleyball

HPER E186 - Wall Volleyball

HPER E190 - Yoga I

HPER E211 - Advanced Basketball

HPER E217 - Bowling - Intermediate

HPER E233 - Fitness and Jogging II

HPER E250 - Karate - Intermediate

HPER E255 - Modern Dance - Intermediate

HPER E259 - Racquetball - Intermediate

HPER E268 - Swimming - Intermediate

HPER E281 - Tennis - Intermediate

HPER E285 - Advanced Volleyball

HPER E290 - Yoga II

HPER H160 - First Aid

HPER H163 - Topics in Health

HPER P122 - Performance of Team Sports

HPER P240 - Foundations of Physical Education

HPER P280 - Principles of Athletic Training and Emergency Care

HPER P397 - Kinesiology

HPER P409 - Physiology of Exercise

HPER P450 - Principles and Psychology of Coaching

HPER R160 - Foundations Of Recreation And Leisure

HPER R180 - Recreation Leadership

HPER R399 - Readings In Recreation Park And Tourism Studies

HSC 10000 - Introduction to Health Professions

HSC 49900 - Special Topics in Health Sciences

HSRV 10000 - Introduction to Human Services

HSRV 10300 - Helping Relationship Techniques

HSRV 10500 - Basic Interviewing Skills

HSRV 16900 - Introduction to Wellness and Stress Management

HSRV 20000 - Behavioral Therapies

HSRV 20100 - Clinical in Case Study Method I

HSRV 21100 - The Dynamics of Group Behavior

HSRV 25100 - Clinical in Case Study Method II

HSRV 29900 - Human Services

HSRV 31500 - Introduction to Theories and Therapies

HSRV 32000 - Case Methods

HSRV 32500 - Current Trends in Psychosocial Rehabilitation

HSRV 33000 - Psychopharmacology for Human Services

HSRV 35000 - Drugs and Society

HSRV 39900 - Special Topics

HSRV 40000 - Internship I

HSRV 40100 - Internship Seminar I

HSRV 41700 - Research Methods

HSRV 42000 - Substance Abuse Prevention

HSRV 45000 - Internship II

HSRV 45100 - Internship Seminar II

HTM 10000 - Introduction to the Hospitality and Tourism Industry

HTM 14100 - Financial Accounting for the Service Industries

HTM 18100 - Lodging Management

HTM 19100 - Sanitation and Health in Foodservice, Lodging, and Tourism

HTM 21400 - Introduction to Food Selection and Preparation

HTM 23100 - Hospitality and Tourism Marketing

HTM 30100 - Hospitality and Tourism Industry Practicum

HTM 30200 - Hospitality and Tourism Industry Internship

HTM 31000 - Food and Beverage Operation Management

HTM 31100 - Procurement Management for Foodservice

HTM 31200 - Human Resources Management for the Service Industries

HTM 31400 - Franchising

HTM 31500 - Club Management and Operations

HTM 31600 - Casino Management

HTM 32001 - Equipment for Restaurants, Hotels, and Institutions

HTM 32200 - Hospitality Facilities Management

HTM 32300 - Foodservice Layout and Design

HTM 34100 - Cost Controls in Foodservice and Lodging

HTM 37100 - Introduction to Tourism

HTM 38300 - Resort, Cruise, and Entertainment Operations

HTM 39100 - Specialty Foodservice and Catering

HTM 41000 - Dinner Series, Capstone

HTM 41100 - Hospitality and Tourism Law

HTM 42000 - Event Management

HTM 43000 - Hospitality Strategic Management

HTM 44100 - Financial Management for the Hospitality Industry

HTM 49100 - Beverage Management

HTM 49200 - Advanced Foodservice Management

IDIS G102 - Freshman Seminar/Physical and Natural World

IDIS G103 - Freshman Seminar/The Individual, Culture, and Society

IDIS G104 - Freshman Seminar/ Humanistic Thought

IDIS 10000 - Freshman Honors Seminar

IDIS 11000 - Freshman Success Course

IDIS 11100 - International Student Success

IDIS 11500 - Career Beginnings

IDIS 20000 - Interdepartmental Colloquium

IDIS 29900 - Honors Tutorial

IDIS 29900 - Honors Tutorial (Honors Course)

IDIS 30000 - Interdepartmental Colloquium

IDIS 30000 - Interdepartmental Colloquium

IDIS 39900 - Honors Independent Study

IDIS 39900 - Honors Independent Study (Honors Course)

IET 10500 - Industrial Management

IET 20004 - Techniques of Maintaining Quality

IET 22400 - Production Planning and Control

IET 25700 - Ergonomics

IET 26700 - Work Methods Design

IET 27400 - Industrial Practice I

IET 27500 - Industrial Practice II

IET 29900 - Industrial Engineering Technology

IET 30400 - Advanced Metrology

IET 31000 - Plant Layout and Material Handling

IET 35000 - Engineering Economy

IET 36200 - Technological Optimization

IET 36900 - Manufacturing Simulation

IET 37500 - Industrial Practice III

IET 37600 - Industrial Practice IV

IET 40100 - Manufacturing Process Planning

IET 45400 - Statistical Process Control

IET 47500 - Industrial Practice V

IET 47800 - Lean Manufacturing and Design

IET 48000 - Cost Estimating and Design

IET 49900 - Industrial Engineering Technology

ILCS I208 - International Cinema

ILCS I209 - From Myths to Fairy Tales: Back to the Germanic Roots in Storytelling

ILCS I300 - Methods of Research and Criticism

ILCS I330 - Cultural Crossroads: Comparative International Cultures

ILCS I350 - International Communication

IM 10500 - Introduction to Informatics

IM 21000 - Problem Solving and Programming for Informatics

IM 22000 - Database Applications for Informatics

IM 23000 - Informatics Infrastructure

IM 31000 - Problem Solving and Programming for Informatics

IM 33000 - Information Retrieval and Presentation

IM 37000 - Network Design and Management for Informatics

IM 38000 - HCI Design for Informatics

IM 45000 - Informatics Design Project

INTL I200 - Introduction to International Studies: Emerging Global Visions

INTL I441 - America in Global Perspective

INTR 11100 - Introduction to Interior Design

INTR 11200 - Residential Interior Design II

INTR 12100 - Freehand Sketching

INTR 12300 - Perspective Drawing

INTR 13100 - Decorative Materials and Accessories I

INTR 13200 - Decorative Materials and Accessories II

INTR 20100 - CAD for Interior Design

INTR 20600 - Portfolio and Professional Presentation

INTR 22000 - Architecture and Urban Form

INTR 22000 - Architecture and Urban Form (Honors Course)

INTR 24100 - Lighting and Color Design

INTR 29900 - Interior Design

INTR 30600 - Interior and Furniture Styles I

INTR 30700 - Interior and Furniture Styles II

INTR 30800 - Interior Design II

INTR 30900 - Interior Design III

INTR 31000 - Interior Design Travel

INTR 32000 - Architecture and Urban Form in the Modern World

INTR 33000 - Culture and Design: A Cross-Culture Comparison of Architecture

INTR 40000 - Interior Design Studio I

INTR 40100 - Interior Design Studio II

INTR 40200 - Professional Practice

INTR 40300 - Interior Design Details

INTR 40400 - Interior Design Practicum

INTR 49900 - Interior Design Projects

IST 14000 - Introduction to Visual Basic Applications

IST 15500 - COBOL Programming

IST 16000 - Foundation and Role of Information Systems

IST 20300 - Advanced Visual Basic

IST 25600 - Applications Software Project

IST 26000 - Enterprise Architecture

IST 27000 - Data and Information Management

IST 28000 - Survey of Information Technology

IST 29200 - Intermediate Topics in Information Systems

IST 29500 - Industrial Practicum

IST 34000 - Business Process Management

IST 35000 - IT Infrastructure

IST 36000 - Enterprise Systems

IST 36600 - Structured Analysis Techniques

IST 36700 - Structured Design Techniques

IST 37000 - Systems Analysis and Design

IST 39500 - Industrial Practice I

IST 42000 - Information Systems Innovation and New Technologies

IST 43000 - IT Security and Risk Management

IST 44000 - Introduction to Human-Computer Interaction

IST 45000 - IT Audit and Controls

IST 46600 - Information Systems & Technology Strategy, Management & Acquisition

IST 46700 - Information Systems Project Management

IST 49200 - Topics in Information Systems

IST 49400 - Directed Study

IST 49500 - Cooperative Experience

IT 50700 - Measurement and Evaluation in Industry and Technology

IT 50800 - Quality and Productivity in Industry and Technology

IT 59000 - Special Problems in Industrial Technology

ITC 11000 - Information Technology Fundamentals

ITC 13000 - Programming Fundamentals I

ITC 13100 - Programming Fundamentals II

ITC 14500 - Electrical Fundamentals

ITC 17000 - Discrete Computing Structures

ITC 21000 - Information Technology Systems

ITC 22000 - Computer Systems

ITC 23000 - Computer Operating Systems

ITC 25000 - Web Systems

ITC 33000 - Networking

ITC 35000 - Databases

ITC 37000 - Human Computer Interaction

ITC 38000 - Project Integration

ITC 41000 - Information Assurance & Security

ITC 48000 - Information Technology Senior Project I

ITC 48100 - Information Technology Senior Project II

JOUR C200 - Mass Communications

JOUR C201 - Topics in Journalism

JOUR C300 - Citizen and the News

JOUR C327 - Writing for Publication

JOUR J110 - Foundations of Journalism and Mass Communication

JOUR J200 - Reporting, Writing and Editing I

JOUR J20I - Reporting, Writing, and Editing II

JOUR J210 - Visual Communication

JOUR J219 - Introduction to Public Relations

JOUR J280 - Sophomore Seminar in Journalism

JOUR J290 - Internship in Journalism

JOUR J300 - Communications Law

JOUR J310 - Editorial Practices

JOUR J315 - Feature Writing

JOUR J320 - Principles of Creative Advertising

JOUR J321 - Principles of Public Relations

JOUR J337 - Media Economics

JOUR J351 - Newspaper Editing

JOUR J360 - Journalism Specialties

JOUR J390 - Corporate Publications

JOUR J413 - Magazine Article Writing

JOUR J425 - Supervision of School Media

JOUR J427 - Public Relations in a Democratic Society

JOUR J492 - Media Internship

LING L103 - Introduction to the Study of Language

LING L303 - Introduction to Linguistic Analysis

LING L307 - Phonology

LING L310 - Syntax

LING L321 - Methods and Materials for TESOL I

LING L322 - Methods and Materials for TESOL II

LING L325 - Semantics

LING L360 - Language in Society

LING L366 - Linguistics and Adjacent Arts and Sciences

LING L430 - Language Change and Variation

LING L431 - Field Methods

LING L470 - TENL Practicum

LING L485 - Topics in Linguistics

LING L490 - Linguistic Structures

LING S103 - Honors Introduction to the Study of Language

LSTU L100 - Survey of Unions and Collective Bargaining

LSTU L101 - American Labor History

LSTU L104 - Introduction to the Study of Labor History

LSTU L110 - Introduction to Labor Studies: Labor and Society

LSTU L190 - The Labor Studies Degree

LSTU L199 - Portfolio Development Workshop

LSTU L200 - Survey of Employment Law

LSTU L201 - Labor Law

LSTU L203 - Labor and the Political System

LSTU L205 - Contemporary Labor Problems

LSTU L210 - Workplace Discrimination and Fair Employment

LSTU L220 - Grievance Representation

LSTU L230 - Labor and the Economy

LSTU L240 - Occupational Health and Safety

LSTU L250 - Collective Bargaining

LSTU L251 - Collective Bargaining Laboratory

LSTU L255 - Unions in State and Local Government

LSTU L260 - Leadership and Representation

LSTU L270 - Union Government and Organization

LSTU L280 - Union Organizing

LSTU L285 - Assessment Project

LSTU L290 - Topics in Labor Studies

LSTU L299 - Self-Acquired Competencies, Labor Studies

LSTU L314 - Ethical Dilemmas in the Workplace

LSTU L315 - The Organization of Work

LSTU L320 - Grievance Arbitration

LSTU L350 - Issues in Collective Bargaining

LSTU L360 - Union Administration and Development

LSTU L370 - Labor and Religion

LSTU L375 - Comparative Labor Movements

LSTU L380 - Theories of the Labor Movement

LSTU L385 - Class, Race, Gender, and Work

LSTU L390 - Topics in Labor Studies

LSTU L420 - Labor Studies Internship

LSTU L430 - Labor Research Methods

LSTU L480 - Seminar on Labor Education

LSTU L490 - Topics in Labor Studies

LSTU L495 - Directed Labor Study

LSTU L499 - Self-Acquired Competencies, Labor Studies

MA 900 - Topics In Elementary Algebra

MA 1300 - Topics in Intermediate Algebra

MA 10100 - Mathematics for Elementary Teachers I

MA 10200 - Mathematics for Elementary Teachers II

MA 10300 - Mathematics for Elementary Teachers III

MA 10900 - Elementary Algebra

MA 11300 - Intermediate Algebra

MA 14900 - Basic and College Algebra

MA 15300 - Algebra and Trigonometry I

MA 15400 - Algebra and Trigonometry II

MA 15900 - Precalculus

MA 16300 - Honors Integrated Calculus and Analytic Geometry I (Honors Course)

MA 16400 - Honors Integrated Calculus and Analytic Geometry II (Honors Course)

MA 16500 - Analytic Geometry and Calculus I

MA 16600 - Analytic Geometry and Calculus II

MA 16800 - Mathematics for the Liberal Arts Student

MA 17500 - Introductory Discrete Mathematics

MA 18300 - Professional Practicum I

MA 18400 - Professional Practicum II

MA 21300 - Finite Mathematics I

MA 22700 - Calculus for Technology I

MA 22800 - Calculus for Technology II

MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I

MA 23000 - Calculus for the Managerial, Social, and Biological Sciences II

MA 26100 - Multivariate Calculus

MA 26300 - Multivariate and Vector Calculus

MA 27500 - Intermediate Discrete Math

MA 28400 - Professional Practicum III

MA 30500 - Foundations of Higher Mathematics

MA 31400 - Introduction to Mathematical Modeling

MA 32100 - Applied Differential Equations

MA 35100 - Elementary Linear Algebra

MA 36300 - Differential Equations

MA 38600 - Professional Practicum IV

MA 41700 - Mathematical Programming

MA 41800 - Computations Laboratory for MA 417

MA 44100 - Real Analysis

MA 45300 - Elements of Algebra

MA 46000 - Geometry

MA 48700 - Professional Practicum V

MA 49000 - Topics in Mathematics for Undergraduates

MA 51000 - Vector Calculus

MA 51100 - Linear Algebra with Applications

MA 52100 - Introduction to Optimization Problems

MA 52300 - Introduction to Partial Differential Equations

MA 52500 - Introduction to Complex Analysis

MA 54000 - Analysis I

MA 54100 - Analysis II

MA 55300 - Introduction to Abstract Algebra

MA 55400 - Linear Algebra

MA 55600 - Introduction to the Theory of Numbers

MA 56000 - Fundamental Concepts of Geometry

MA 57100 - Elementary Topology

MA 57500 - Graph Theory

MA 58000 - History of Mathematics

MA 58100 - Introduction to Logic for Teachers

MA 59800 - Topics in Mathematics

ME 16000 - Solid Modeling

ME 20000 - Thermodynamics I

ME 25000 - Statics

ME 25100 - Dynamics

ME 25200 - Strength of Materials

ME 25300 - Statics and Dynamics

ME 28200 - Measurements and Instrumentation

ME 28500 - Industrial Practice I

ME 28600 - Industrial Practice II

ME 28700 - Industrial Practice III

ME 28800 - Industrial Practice IV

ME 28900 - Industrial Practice V

ME 29300 - Measurements and Instrumentation

ME 30100 - Thermodynamics II

ME 30300 - Material Science and Engineering

ME 30400 - Mechanics and Materials Laboratory

ME 31800 - Fluid Mechanics

ME 31900 - Fluid Mechanics Laboratory

ME 32100 - Heat Transfer

ME 32200 - Heat Transfer Laboratory

ME 33100 - System Dynamics

ME 33300 - Automatic Control Systems

ME 36100 - Kinematics and Dynamics of Machinery

ME 36900 - Design of Machine Elements

ME 37100 - System Dynamics and Introduction to Control

ME 37300 - Numerical Methods for Engineers

ME 38700 - Electronics and System Engineering through Robotics

ME 38800 - Electronics and System Engineering through Robotics Lab

ME 42100 - Heating and Air Conditioning I

ME 42400 - Design and Optimization of Thermal Systems

ME 42500 - Intermediate Heat Transfer: Theory and Applications

ME 45300 - Experimental Stress Analysis

ME 45400 - Intermediate Dynamics with Computer Applications

ME 46900 - Advanced Mechanics of Materials

ME 47100 - Vibration Analysis

ME 48000 - Finite Element Analysis

ME 48700 - Mechanical Engineering Design I

ME 48800 - Mechanical Engineering Design II

ME 49700 - Mechanical Engineering Projects

ME 49800 - Research in Mechanical Engineering I

ME 49900 - Research in Mechanical Engineering II

ME 50500 - Intermediate Heat Transfer

ME 50900 - Intermediate Fluid Mechanics

ME 56200 - Advanced Dynamics

ME 56300 - Mechanical Vibrations

MET 10400 - Technical Graphics Communications

MET 10600 - Analytical and Computational Tools in MET

MET 18000 - Materials and Processes

MET 21600 - Machine Elements

MET 22300 - Introduction to Computer- Aided Modeling and Design

MET 24700 - Computer-Aided Tool and Fixture Design

MET 27500 - Industrial Practice I

MET 27600 - Industrial Practice II

MET 29500 - Industrial Practicum

MET 29900 - Mechanical Engineering Technology

MET 30000 - Applied Thermodynamics

MET 31200 - Dynamics and Mechanisms

MET 33000 - Introduction to Fluid Power

MET 33500 - Basic Machining

MET 34700 - Programming of Automation Systems

MET 35000 - Applied Fluid Mechanics

MET 36000 - Heating, Ventilating, and Air Conditioning

MET 37000 - Introduction to Heat Transfer

MET 37500 - Industrial Practice III

MET 37600 - Industrial Practice IV

MET 38100 - Engineering Materials

MET 47500 - Industrial Practice V

MET 48700 - Instrumentation and Automatic Control

MET 49400 - Senior Design and Analysis

MET 49900 - Mechanical Engineering Technology

MSL 10100 - Foundation Officership

MSL 10200 - Basic Leadership

MSL 12000 - Reading Military Maps Survival Skills

MSL 20100 - Individual Leadership

MSL 20200 - Leadership and Teamwork

MSL 30100 - Leadership and Problem Solving

MSL 30200 - Leadership and Ethics

MSL 40100 - Leadership and Management

MSL 40200 - Officership

MSL 49000 - Directed Study In Military Science

MSL 49900 - Advanced Military Studies

MUS A410 - Violin Undergraduate Major

MUS A420 - Viola Undergraduate Major

MUS B110 - French Horn

MUS B120 - Trumpet and Cornet

MUS B130 - Trombone

MUS B140 - Baritone Horn

MUS B150 - Tuba

MUS B410 - Horn Undergraduate Major

MUS B420 - Trumpet and Cornet Undergraduate Major

MUS B430 - Trombone Undergraduate Major

MUS B440 - Euphonium Undergraduate Major

MUS B450 - Tuba

MUS D100 - Percussion

MUS D400 - Percussion

MUS D700 - Percussion

MUS E135 - First Year Seminar in Music Education

MUS E193 - Piano Pedagogy I

MUS E194 - Piano Pedagogy II

MUS E253 - Functional Music Skills

MUS E293 - Piano Pedagogy III

MUS E294 - Piano Pedagogy IV

MUS E353 - Improvisation Techniques for Music Therapy

MUS E400 - Undergraduate Readings in Music Education

MUS E459 - Instrumental Pedogogy

MUS E470 - Pedagogy of Jazz

MUS E490 - Psychology of Music Teaching

MUS E493 - Piano Pedagogy

MUS E494 - Voice Pedagogy

MUS F316 - Jazz Arranging I

MUS F321 - Jazz Improvisation

MUS F419 - Special Topics

MUS F466 - Techniques in Marching Bands

MUS G261 - String Techniques

MUS G272 - Clarinet and Saxophone Techniques

MUS G281 - Brass Instrument Techniques

MUS G337 - Woodwind Techniques

MUS G338 - Percussion Techniques

MUS G370 - Techniques for Conducting

MUS G371 - Choral Conducting I

MUS G373 - Instrumental Conducting

MUS H100 - Harp

MUS H300 - Harp

MUS K131 - Composition Workshop I

MUS K132 - Composition Workshop II

MUS K312 - Arranging for Instrumental and Vocal Groups

MUS K416 - Jazz Arranging I

MUS L100 - Guitar

MUS L153 - Introduction to Music Therapy

MUS L153 - Introduction to Music Therapy (Honors Course)

MUS L253 - Music Therapy Observation Practicum

MUS L254 - Music Therapy Practicum I

MUS L300 - Guitar

MUS L340 - Music Therapy in Healthcare Settings

MUS L353 - Music Therapy Practicum II

MUS L354 - Music Therapy Practicum III

MUS L410 - Administrative and Professional Issues in Music Therapy

MUS L418 - Psychology of Music

MUS L419 - Introduction to Music Therapy Research Methods

MUS L420 - Clinical Processes in Music Therapy

MUS L421 - Music Therapy Practicum IV

MUS L422 - Theoretical Foundations in Music Therapy

MUS L423 - Advanced Music Therapy Practicum

MUS L424 - Music Therapy Internship

MUS M201 - Music Literature I

MUS M202 - Music Literature II

MUS M216 - Music Education Lab/Field Experience

MUS M236 - Introduction to Music Education

MUS M317 - Music Education Lab/Field Experience

MUS M318 - Music Education Lab/Field Experience

MUS M319 - Music Education Lab/Field Experience

MUS M337 - Methods and Materials for Teaching Instrumental Music

MUS M338 - Methods and Materials for Teaching Choral Music

MUS M339 - General Music Methods K-8

MUS M400 - Undergraduate Readings in Musicology

MUS M403 - History of Music I

MUS M404 - History of Music II

MUS M411 - History of Music in the Americas

MUS M431 - Song Literature

MUS M443 - Survey of Keyboard Literature

MUS M445 - Instrumental Literature

MUS N101 - Music for the Listener - Honors

MUS P100 - Piano

MUS P110 - Piano Class, Non-music Majors

MUS P111 - Class Piano I

MUS P121 - Class Piano II

MUS P131 - Class Piano III

MUS P141 - Class Piano IV

MUS P210 - Keyboard Skills

MUS P211 - Keyboard Techniques

MUS P400 - Piano Undergraduate Major

MUS P800 - Piano

MUS Q100 - Organ

MUS Q300 - Organ

MUS R151 - Introduction to Musical Theatre

MUS R453 - Project in Opera Stage Direction

MUS S110 - Violin

MUS S120 - Viola

MUS S130 - Cello

MUS S140 - String Bass

MUS S430 - Cello Undergraduate Major

MUS S440 - Double Bass Undergraduate Major

MUS S810 - Violin

MUS S820 - Viola

MUS S830 - Cello

MUS T109 - Rudiments of Music I

MUS T113 - Music Theory I

MUS T114 - Music Theory II

MUS T115 - Sightsinging and Aural Perception I

MUS T116 - Sightsinging and Aural Perception II

MUS T213 - Music Theory III

MUS T214 - Music Theory IV

MUS T215 - Sightsinging and Aural Perception III

MUS T216 - Sightsinging and Aural Perception IV

MUS T315 - Analysis of Musical Form

MUS T400 - Undergraduate Readings in Theory

MUS U109 - Computer Skills for Musicians

MUS U354 - Introduction to Creative Arts Therapies

MUS U355 - Music and Exceptionality

MUS U356 - Creative Arts and Early Childhood

MUS U357 - Music in Special Education

MUS U410 - Creative Arts, Health, and Wellness

MUS V100 - Voice

MUS V201 - Voice Class

MUS V226 - English Diction for Singers

MUS V227 - German Diction for Singers

MUS V228 - French Diction for Singers

MUS V229 - Italian Diction for Singers

MUS V800 - Voice

MUS W110 - Flute and Piccolo

MUS W120 - Oboe and English Horn

MUS W130 - Clarinet

MUS W140 - Bassoon

MUS W150 - Saxophone

MUS W320 - Oboe and English Horn

MUS W410 - Flute and Piccolo

MUS W410 - Flute and Piccolo Undergraduate Major

MUS W420 - Oboe and English Horn

MUS W420 - Oboe and English Horn Undergraduate Major

MUS W430 - Clarinet Undergraduate Major

MUS W440 - Bassoon

MUS W440 - Bassoon Undergraduate Major

MUS W450 - Saxophone Undergraduate Major

MUS W710 - Flute and Piccolo

MUS W730 - Clarinet

MUS W750 - Saxophone

MUS X002 - Piano Accompanying

MUS X040 - University Instrumental Ensembles

MUS X041 - Symphonic Wind Ensemble

MUS X042 - Jazz Ensemble

MUS X043 - Orchestra

MUS X044 - Community Band

MUS X070 - University Choral Ensembles

MUS X071 - University Singers

MUS X073 - Choral Union

MUS X095 - Performance Class

MUS X296 - Applied Music Upper Divisional Jury Examination

MUS X297 - Music Education Upper Divisional Skills Examination

MUS X298 - Music Therapy Upper Divisional Skills Examination

MUS X299 - Piano Proficiency Examination

MUS X301 - Recital: Concentration Level

MUS X341 - Guitar Ensemble

MUS X401 - Junior Recital: Performance Major

MUS X402 - Senior Recital: Performance Major

MUS X420 - Brass Ensemble

MUS X425 - Early Music Chamber Ensemble

MUS X450 - String Instrument Ensembles

MUS X460 - Woodwind Ensembles

MUS X470 - Opera Ensemble

MUS X490 - Percussion Ensembles

MUS Y110 - Early Instruments, Early Voice

MUS Z101 - Music for the Listener

MUS Z102 - Music for the Listener

MUS Z105 - Traditions in World Music

MUS Z140 - Introduction to Musical Expression

MUS Z201 - History of Rock and Roll Music

MUS Z241 - Introduction to Music Fundamentals

MUS Z393 - History of Jazz

NELC A100 - Elementary Arabic I

NELC A150 - Elementary Arabic II

NELC A200 - Intermediate Arabic I

NELC A250 - Intermediate Arabic II

NUR 10000 - Guided Readings in Nursing

NUR 10300 - Professional Seminar I: Communications, Ethics and Diversity

NUR 10600 - Medical Terminology

NUR 11500 - Nursing I: Introduction to Nursing

NUR 11700 - LPN Nursing Mobility Seminar

NUR 13000 - Essential Clinical Skills

NUR 20200 - Nursing II: Medical-Surgical Nursing of Adults

NUR 22400 - Nursing IIIA (Medical-Surgical Nursing of Adults)

NUR 22500 - Maternity Nursing A

NUR 24000 - Psychiatric Mental Health Nursing A

NUR 24100 - Psychiatric Mental Health Nursing B

NUR 24500 - Basic Cardiac Dysrhythmias

NUR 27900 - Caring for Children and Families A

NUR 28100 - Nursing Issues and Manager of Care

NUR 29000 - Guided Study

NUR 29500 - Concepts in Critical Thinking

NUR 30900 - Transcultural Healthcare

NUR 31100 - Intravenous Therapy

NUR 31900 - Alternative and Complementary Therapies

NUR 33400 - Clinical Pathophysiology

NUR 33600 - Nursing IIIB: Medical-Surgical Nursing of Adults

NUR 33700 - Statistics and Data Management in Health Sciences

NUR 33900 - Research in Healthcare

NUR 34400 - Introduction to Healthcare Informatics

NUR 34500 - Trauma Nursing

NUR 34600 - Advanced Health Assessment

NUR 35900 - Disaster Healthcare

NUR 36800 - Maternity Nursing B

NUR 37700 - Professional Seminar II: Concepts and Trends in Healthcare Delivery

NUR 37900 - Caring for Children and Families B

NUR 39900 - Special Topics

NUR 41800 - Community/Public Health Nursing

NUR 41900 - Advanced Acute Care Nursing

NUR 42300 - Professional Seminar III: Healthcare Policies and Ethical Issues

NUR 43300 - Advanced Concepts in Critical Thinking

NUR 44200 - Leadership in Nursing

NUR 49000 - Nursing Practicum

OLS 12100 - Keyboarding

OLS 21100 - Professional Practice I

OLS 21200 - Professional Practice II

OLS 25200 - Human Relations in Organizations

OLS 26200 - Practical Applications for Supervisors

OLS 26800 - Elements of Law

OLS 27400 - Applied Leadership

OLS 28000 - Computer Applications for Supervisors

OLS 29500 - Leadership Practicum

OLS 31100 - Professional Practice III

OLS 31200 - Professional Practice IV

OLS 32000 - Customer Service and Commitment

OLS 32400 - Advanced Word Processing, Desktop Publishing, Presentation Graphics

OLS 32600 - Comprehensive Spreadsheet Concepts,

OLS 32900 - Comprehensive Database Management Concepts,

OLS 33100 - Occupational Safety and Health

OLS 34200 - Interviewing Strategies in Organizations

OLS 35000 - Applied Creativity for Business and Industry

OLS 35100 - Innovation and Entrepreneurship

OLS 36100 - Safety Department Supervision

OLS 36200 - Cooperative Occupational Internship

OLS 36400 - Professional Development Program

OLS 36500 - Leading Virtual Teams

OLS 37000 - Managing Job Stress and Health

OLS 37500 - Training Methods

OLS 37600 - Human Resources Issues

OLS 37800 - Labor Relations

OLS 38400 - Leadership Process

OLS 39500 - Leadership Practicum

OLS 39900 - Special Topics

OLS 39900 - Special Topics (Honors Course)

OLS 41000 - Survival Skills in Organizational Careers

OLS 41100 - Professional Practice V

OLS 45400 - Gender and Diversity in Management

OLS 46800 - Personnel Law

OLS 47400 - Conference Leadership

OLS 47500 - Topics: Contemporary Supervisory Training Issues

OLS 47600 - Compensation Planning and Management

OLS 47700 - Conflict Management

OLS 47900 - Staffing Organizations

OLS 48400 - Leadership Strategies for Quality and Productivity

OLS 48500 - Leadership for Team Development

OLS 48600 - Leadership: Management of Change

OLS 48700 - Leadership Philosophy

OLS 49000 - Senior Research Project

OLS 49500 - Leadership Practicum

OLS 49600 - Leading Change: Theory and Practice

PACS P200 - Introduction to Peace and Conflict Studies - Humanities Perspectives

PACS P201 - Introduction to Peace and Conflict Studies - Social/Behavioral Sciences Perspectives

PACS P497 - Humanities Readings and Research in Peace and Conflict Studies

PACS P498 - Social and Behavioral Sciences Readings and Research in Peace and Conflict Studies

PACS P499 - Social and Behavioral Sciences Internship in Peace and Conflict Studies

PCTX 20100 - Introductory Pharmacology

PHIL 11000 - Introduction to Philosophy

PHIL 11000 - Introduction to Philosophy (Honors Course)

PHIL 11100 - Ethics

PHIL 11100 - Ethics-Honors

PHIL 11200 - Religion and Culture

PHIL 11200 - Religion and Culture (Honors Course)

PHIL 12000 - Critical Thinking

PHIL 15000 - Principles of Logic

PHIL 20600 - Philosophy of Religion

PHIL 24000 - Social and Political Philosophy

PHIL 24000 - Social and Political Philosophy (Honors Course)

PHIL 24500 - Introduction to Judaism

PHIL 26000 - Philosophy and Law

PHIL 27500 - The Philosophy of Art

PHIL 30100 - History of Ancient Philosophy

PHIL 30200 - History of Medieval Philosophy

PHIL 30300 - History of Modern Philosophy

PHIL 30400 - 19th Century Philosophy

PHIL 30500 - Philosophical Theories of Feminism

PHIL 31200 - Medical Ethics

PHIL 32600 - Business Ethics

PHIL 32700 - Environmental Ethics

PHIL 32800 - Ethics and Animals

PHIL 33000 - Religions of the East

PHIL 33100 - Religions of the West

PHIL 35100 - Philosophy of Science

PHIL 42500 - Metaphysics

PHIL 43100 - Contemporary Religious Thought

PHIL 43200 - Theory of Knowledge

PHIL 43500 - Philosophy of Mind

PHIL 45000 - Symbolic Logic

PHIL 48000 - Practicum in Applied Ethics

PHIL 49300 - Interdisciplinary Undergraduate Seminar

PHIL 50400 - Human Rights Ethics

PHIL 51000 - Phenomenology

PHIL 51400 - 20th Century Analytical Philosophy I

PHIL 51500 - 20th Century Analytical Philosophy II

PHIL 52400 - Contemporary Ethical Theory

PHIL 52500 - Studies in Metaphysics

PHIL 53000 - Deconstructionist and Postmodernist Philosophy

PHIL 57500 - Problems in Esthetics

PHIL 58000 - Proseminar in Philosophy

PHIL 59000 - Directed Readings in Philosophy

PHYS 10500 - Sound and Music

PHYS 11500 - Introduction to Lasers

PHYS 11501 - Introduction to Lasers (Lab)

PHYS 12000 - Physics of Sports

PHYS 12500 - Light and Color

PHYS 12700 - Physics for Computer Graphics and Animation

PHYS 12800 - Physics of Martial Arts

PHYS 13000 - Exploring the New Physics

PHYS 13100 - Concepts in Physics I

PHYS 13101 - Concepts In Physics I (Lab)

PHYS 13200 - Concepts in Physics II

PHYS 13500 - The First Three Minutes

PHYS 13600 - Chaos and Fractals

PHYS 15200 - Mechanics

PHYS 17000 - Special Topics in Physics

PHYS 18300 - Professional Practice I

PHYS 18400 - Professional Practice II

PHYS 20100 - General Physics I

PHYS 20200 - General Physics II

PHYS 21800 - General Physics

PHYS 21900 - General Physics II

PHYS 22000 - General Physics

PHYS 22100 - General Physics

PHYS 25100 - Heat, Electricity, and Optics

PHYS 27000 - Special Topics in Physics

PHYS 28400 - Professional Practice III

PHYS 30200 - Puzzles, Strategy Games, and Problem Solving in the Physical Sciences

PHYS 30200 - Puzzles, Strategy Games, and Problem solving in the Physical Sciences (Honors Course)

PHYS 31000 - Intermediate Mechanics

PHYS 31200 - Intermediate Electricity and Magnetism

PHYS 31300 - Intermediate Electricity and Magnetism II

PHYS 31400 - Introduction to Medical Physics

PHYS 32200 - Optics

PHYS 32500 - Scientific Computing

PHYS 32600 - Motion, Biomechanics and Animation

PHYS 33000 - Intermediate Electricity and Magnetism

PHYS 33100 - Electricity and Magnetism II

PHYS 34200 - Modern Physics

PHYS 34300 - Modern Physics Laboratory

PHYS 34500 - Optics Laboratory I

PHYS 34600 - Advanced Laboratory I

PHYS 36100 - Electronics for Scientists

PHYS 37000 - Special Topics in Physics

PHYS 38600 - Professional Practice IV

PHYS 40500 - Atomic and Molecular Physics

PHYS 47000 - Special Topics in Physics

PHYS 48700 - Professional Practice V

PHYS 51100 - Laser Physics

PHYS 51500 - Thermal and Statistical Physics

PHYS 52000 - Mathematical Physics

PHYS 52200 - Coherent Optics and Quantum Electronics

PHYS 52400 - Physical Optics and Experimental Spectroscopy

PHYS 53600 - Electronic Techniques for Research

PHYS 54500 - Solid State Physics

PHYS 55000 - Introduction to Quantum Mechanics

PHYS 57000 - Selected Topics in Physics

PHYS 59000 - Reading and Research

POLS S103 - Introduction to American Politics - Honors

POLS S105 - Introduction to Political Theory - Honors

POLS S200 - Political Topics

POLS S211 - Introduction to Law - Honors

POLS S401 - Studies in Political Science-Honors

POLS Y101 - Introduction to Political Science

POLS Y103 - Introduction to American Politics

POLS Y105 - Introduction to Political Theory

POLS Y107 - Introduction to Comparative Politics

POLS Y109 - Introduction to International Relations

POLS Y150 - Foundations of Community Advocacy

POLS Y200 - Contemporary Political Topics

POLS Y203 - The Promise and Problems of Democracy

POLS Y205 - Elements of Political Analysis

POLS Y211 - Introduction to Law

POLS Y301 - Political Parties and Interest Groups

POLS Y303 - Formation of Public Policy in the United States

POLS Y304 - Constitutional Law

POLS Y305 - Constitutional Rights and Liberties

POLS Y306 - State Politics in the United States

POLS Y307 - Indiana State Government and Politics

POLS Y308 - Urban Politics

POLS Y312 - Workshop in State and Local Government

POLS Y317 - Voting, Elections, and Public Opinion

POLS Y318 - The American Presidency

POLS Y319 - The United States Congress

POLS Y320 - Judicial Politics

POLS Y324 - Women and Politics

POLS Y328 - Women and the Law

POLS Y335 - Western European Politics

POLS Y337 - Latin American Politics

POLS Y339 - Middle Eastern Politics

POLS Y340 - East European Politics

POLS Y350 - Politics of the European Union

POLS Y360 - U.S. Foreign Policy

POLS Y367 - International Law

POLS Y371 - Workshop in International Topics

POLS Y374 - International Organization

POLS Y376 - International Political Economy

POLS Y378 - Problems in Public Policy

POLS Y381 - Classical Political Thought

POLS Y382 - History of Political Theory II

POLS Y383 - American Political Ideas I

POLS Y384 - American Political Ideas II

POLS Y394 - Public Policy Analysis

POLS Y395 - Quantitative Political Analysis

POLS Y398 - Internship in Urban Institutions

POLS Y401 - Studies in Political Science

POLS Y480 - Undergraduate Readings in Political Science

POLS Y482 - Practicum

POLS Y490 - Senior Seminar in Political Science

POLS Y496 - Foreign Study in Political Science

POLS Y499 - Honors Thesis

PSY 10000 - Introduction to the Science and Fields of Psychology

PSY 12000 - Elementary Psychology

PSY 12000 - Elementary Psychology - Honors

PSY 20100 - Introduction to Statistics in Psychology

PSY 20300 - Introduction to Research Methods in Psychology

PSY 20300 - Introduction to Research Methods in Psychology - Honors

PSY 20500 - Testing and Measurement

PSY 23500 - Child Psychology

PSY 23500 - Child Psychology - Honors

PSY 24000 - Introduction to Social Psychology

PSY 24000 - Introduction to Social Psychology - Honors

PSY 25100 - Health Psychology

PSY 27200 - Introduction to Industrial-Organizational Psychology

PSY 31000 - Sensory and Perceptual Processes

PSY 31400 - Introduction to Learning

PSY 31400 - Introduction to Learning - Honors

PSY 31700 - Addictions: Biology, Psychology and Society

PSY 32900 - Psychobiology II: Principles of Psychobiological Psychology

PSY 33000 - Psychology of the Arts

PSY 33300 - Motivation

PSY 33400 - Cross Cultural Psychology

PSY 33500 - Stereotyping and Prejudice

PSY 34500 - Psychology of Women

PSY 35000 - Abnormal Psychology

PSY 35000 - Abnormal Psychology - Honors

PSY 35300 - Social and Personality Development in Children

PSY 36200 - Human Development II: Adolescence

PSY 36500 - Development of Gender Roles in Children

PSY 36700 - Adult Development and Aging

PSY 36700 - Adult Development and Aging - Honors

PSY 36900 - Development Across the Lifespan

PSY 37100 - Death and Dying

PSY 39200 - Special Topics in Psychology

PSY 39200 - Special Topics in Psychology - Honors

PSY 41600 - Cognitive Psychology

PSY 41900 - Psychopharmacology

PSY 42000 - Introduction to Personality Theory

PSY 42600 - Language Development

PSY 44100 - Advanced Research in Personality and Social Psychology

PSY 44400 - Human Sexual Behavior

PSY 46000 - Advanced Abnormal Psychology

PSY 47500 - Work Motivation and Job Satisfaction

PSY 48000 - Field Experience in Psychology

PSY 49000 - Practicum in Psychotherapy

PSY 49500 - Issues in Psychology

PSY 49600 - Readings and Research in Psychology

PSY 49800 - Senior Research

PSY 49900 - Honors Thesis in Psychology

PSY 50500 - Mental Measurement

PSY 52300 - Introduction to Theories of Psychotherapy

PSY 52600 - Psycholinguistics

PSY 53200 - Psychological Disorders of Childhood

PSY 54000 - History of Psychology

PSY 55000 - Introduction to Clinical Psychology

PSY 59000 - Individual Research Problems

PSY 59200 - Advanced Special Topics

REL 11200 - Religion and Culture

REL 11200 - Religion and Culture (Honors Course)

REL 23000 - Religions of the East

REL 23100 - Religions of the West

REL 29300 - Topics in Religious Studies

REL 30100 - Islam

REL 30200 - Christianity

REL 31100 - African Traditional Philosophy and Religion

REL 31200 - The Black Religious Experience

REL 31400 - Religion and Violence

REL 31500 - Religion and Women

REL 32100 - Religion and the Civil Rights Movement

REL 38100 - Islam and Modernity

REL 40100 - Studies in Sacred Texts

REL 40200 - Mysticism

REL 49500 - Individual Readings in Religious Studies

SA 24900 - National Student Exchange Experience

SE 51000 - Systems Engineering

SE 52000 - Engineering Economics

SE 53000 - Systems Engineering Management

SE 54000 - Systems Architecture

SE 59500 - Selected Topics in Systems Engineering

SLAV R111 - Elementary Russian I

SLAV R112 - Elementary Russian II

SLAV R214 - Second-Year Russian I

SLAV R215 - Second-Year Russian II

SOC S161 - Principles of Sociology

SOC S163 - Social Problems

SOC S211 - Topics in Social Organization

SOC S221 - Topics in Deviance

SOC S225 - Violence

SOC S260 - Intermediate Sociological Writing

SOC S295 - Selected Topics in Sociology

SOC S298 - Colloquium in Sociology and Women's Studies

SOC S300 - Race and Ethnic Relations

SOC S308 - Introduction to Comparative Sociology

SOC S309 - The Community

SOC S312 - Education and Society

SOC S313 - Religion and Society

SOC S314 - Social Aspects of Health and Medicine

SOC S315 - Work and Occupations

SOC S316 - The Family

SOC S320 - Deviant Behavior and Social Control

SOC S325 - Criminology

SOC S328 - Juvenile Delinquency

SOC S330 - Sociological Social Psychology

SOC S333 - Collective Behavior and Social Movements

SOC S340 - Social Theory

SOC S351 - Social Statistics

SOC S352 - Methods of Social Research

SOC S360 - Topics in Social Policy

SOC S398 - Internship in Sociology

SOC S402 - The Empire of the United States of America

SOC S410 - Advanced Topics in Social Organization

SOC S420 - Advanced Topics in Deviance

SOC S425 - Violence and Society

SOC S431 - Topics in Social Psychology

SOC S441 - Topics in Social Theory

SOC S450 - Topics in Methods and Measurement

SOC S470 - Senior Seminar

SOC S494 - Field Experience in Sociology

SOC S495 - Individual Readings in Sociology

SPAN S105 - Communication and Culture Spanish I

SPAN S106 - Communication and Culture Spanish II

SPAN S111 - Elementary Spanish I

SPAN S112 - Elementary Spanish II

SPAN S113 - Accelerated First Year Spanish

SPAN S203 - Second-Year Spanish I

SPAN S204 - Second-Year Spanish II

SPAN S220 - Chicano and Puerto Rican Literature

SPAN S246 - Women in Hispanic Literature

SPAN S260 - Introduction to Hispanic Film

SPAN S275 - Hispanic Culture and Conversation

SPAN S290 - Topics in Hispanic Culture

SPAN S301 - The Hispanic World I

SPAN S302 - The Hispanic World II

SPAN S311 - Spanish Grammar

SPAN S312 - Written Composition in Spanish

SPAN S315 - Spanish in the Business World

SPAN S316 - Commercial Spanish

SPAN S317 - Spanish Conversation and Diction

SPAN S407 - Survey of Spanish Literature I

SPAN S408 - Survey of Spanish Literature II

SPAN S411 - Spain: The Cultural Context

SPAN S412 - Spanish America: The Cultural Context

SPAN S413 - Hispanic Culture in the U.S.

SPAN S417 - Hispanic Poetry

SPAN S418 - Hispanic Drama

SPAN S420 - Modern Spanish-American Prose Fiction

SPAN S421 - Advanced Grammar

SPAN S425 - Spanish Phonetics

SPAN S426 - Introduction to Spanish Linguistics

SPAN S428 - Applied Spanish Linguistics

SPAN S450 - Don Quixote

SPAN S470 - Women and Hispanic Literature

SPAN S471 - Spanish-American Literature I

SPAN S472 - Spanish-American Literature II

SPAN S478 - Modern Spanish Novel

SPAN S479 - Mexican Literature

SPAN S480 - Argentine Literature

SPAN S488 - Spanish for Teachers

SPAN S494 - Individual Readings in Hispanic Studies

SPAN S495 - Hispanic Colloquium

SPAN W399 - Internship in Spanish

SPEA E100 - Environmental Topics

SPEA E162 - Environment and People

SPEA E272 - Introduction to Environmental Sciences

SPEA E400 - Topics in Environmental Studies

SPEA H120 - Contemporary Health Issues

SPEA H316 - Environmental Health Science

SPEA H320 - Health Systems Administration

SPEA H322 - Principles of Epidemiology

SPEA H352 - Health Finance and Budgeting

SPEA H371 - Human Resource Management in Healthcare Facilities

SPEA H402 - Hospital Administration

SPEA H411 - Chronic and Long-Term Care Administration

SPEA H416 - Environmental Health Policy

SPEA H422 - The Social Epidemics: AIDS, Violence, and Substance Abuse

SPEA H441 - Legal Aspects of Healthcare Administration

SPEA H455 - Topics in Public Health

SPEA H456 - Managed Care

SPEA H474 - Health Administration Ethics Seminar

SPEA J101 - The American Criminal Justice System

SPEA J201 - Theoretical Foundations of Criminal Justice Policies

SPEA J202 - Criminal Justice Data, Methods, and Resources

SPEA J260 - Topics in Criminal Justice

SPEA J301 - Substantive Criminal Law

SPEA J302 - Procedural Criminal Law

SPEA J303 - Evidence

SPEA J304 - Correctional Law

SPEA J305 - Juvenile Justice

SPEA J306 - The Criminal Courts

SPEA J310 - Introduction to Administrative Processes

SPEA J320 - Criminal Investigation

SPEA J321 - American Policing

SPEA J322 - Introduction to Criminalistics

SPEA J331 - Corrections

SPEA J369 - Private Justice: Police, Courts, and Corrections

SPEA J370 - Seminar in Criminal Justice

SPEA J376 - Principles of Public Safety

SPEA J380 - Internship in Criminal Justice

SPEA J433 - Institutional Corrections

SPEA J439 - Crime and Public Policy

SPEA J440 - Corrections in the Community

SPEA J445 - Trends in Corrections

SPEA J460 - Police in the Community

SPEA J470 - Seminar in Criminal Justice

SPEA J480 - Research in Criminal Justice

SPEA K300 - Statistical Techniques

SPEA V170 - Introduction to Public Affairs

SPEA V260 - Topics in Public Affairs

SPEA V263 - Public Management

SPEA V264 - Urban Structure and Policy

SPEA V270 - Survey of Administrative Techniques

SPEA V275 - Introduction to Emergency Management

SPEA V340 - Urban Government Administration

SPEA V348 - Management Science

SPEA V365 - Urban Development and Planning

SPEA V366 - Managing Behavior in Public Organizations

SPEA V368 - Managing Government Operations

SPEA V370 - Research Methods and Statistical Modeling

SPEA V371 - Financing Public Affairs

SPEA V372 - Government Finance and Budgets

SPEA V373 - Human Resources Management in the Public Sector

SPEA V376 - Law and Public Policy

SPEA V377 - Legal Process and Contemporary Issues in America

SPEA V378 - Policy Processes in the United States

SPEA V380 - Internship in Public Affairs

SPEA V381 - Professional Experience

SPEA V387 - Public Administration and Emergency Management

SPEA V389 - Risk and Hazard Mitigation

SPEA V390 - Readings in Public Affairs

SPEA V405 - Public Law and the Legislative Process

SPEA V406 - Public Law and the Electoral Process

SPEA V407 - Public Law and Government Relations

SPEA V421 - Metropolitan Development

SPEA V432 - Labor Relations in the Public Sector

SPEA V441 - Topics in Financial Management and Policy

SPEA V444 - Public Administrative Organization

SPEA V447 - Federal Budget Policy

SPEA V449 - Policy Senior Seminar

SPEA V450 - Contemporary Issues in Public Affairs

SPEA V450 - Contemporary Issues in Public Affairs (Honors Course)

SPEA V456 - Topics in Public Law

SPEA V457 - Management Science in the Public Sector

SPEA V465 - Geographic Information Systems for Public and Environmental Affairs

SPEA V471 - Urban Management Systems

SPEA V490 - Directed Research in Public and Environmental Affairs

STAT 12500 - Communicating with Statistics

STAT 24000 - Statistical Methods for Biology

STAT 30100 - Elementary Statistical Methods I

STAT 34000 - Elementary Statistical Methods II

STAT 49000 - Topics in Statistics for Undergraduates

STAT 51100 - Statistical Methods

STAT 51200 - Applied Regression Analysis

STAT 51400 - Design of Experiments

STAT 51600 - Basic Probability and Applications

STAT 51700 - Statistical Inference

STAT 51900 - Introduction to Probability

STAT 52800 - Introduction to Mathematical Statistics

TECH 54000 - Reliability and Maintenance

TECH 55700 - Tolerancing Techniques

TECH 56100 - Industrial Projects Management and Control

TECH 56900 - Simulation Modeling

Tech 57400 - Advanced Quality Engineering Methods

THTR 13400 - Fundamentals of Performance

THTR 13600 - Rehearsal and Performance I

THTR 13800 - Acting I

THTR 15800 - Stagecraft

THTR 16800 - Theatre Production I

THTR 20100 - Theatre Appreciation

THTR 21300 - Voice for the Actor

THTR 23800 - Acting II

THTR 25600 - Stage Makeup

THTR 26100 - Introduction to Theatrical Design

THTR 26400 - Rendering Techniques

THTR 28400 - Textual Analysis

THTR 32300 - Acting: Movement for the Actor

THTR 33600 - Rehearsal and Performance II

THTR 33800 - Acting III

THTR 35100 - Costume Techniques I

THTR 35500 - American Musical Theatre

THTR 36000 - Scenic Design

THTR 36100 - Costume Design

THTR 36200 - Light Design

THTR 36500 - Period Style for the Theatre I

THTR 36600 - Period Style for the Theatre II

THTR 36800 - Theatre Production II

THTR 37600 - Introduction to Playwriting

THTR 39000 - Directed Study of Special Theatre Problems

THTR 39000 - Directed Study of Special Theatre Problems (Honors Course)

THTR 41300 - Advanced Voice for the Stage

THTR 43800 - Acting IV

THTR 44000 - Directing: Page to Stage

THTR 47000 - Theatre and Society I

THTR 47100 - Theatre and Society II

THTR 49900 - Senior Performance Project

THTR 50100 - Stage Management

THTR 50400 - Summer Repertory Theatre

THTR 53600 - Advanced Problems in Acting

THTR 54000 - Advanced Directing

THTR 54200 - Advanced Problems in Theatre Directing

THTR 56000 - Advanced Scenic Design

THTR 56100 - Advanced Costume Design

THTR 56200 - Advanced Light Design

THTR 56600 - Theatre Management

THTR 57600 - Playwriting

THTR 58300 - American Theatre History and Drama

THTR 59000 - Directed Study of Special Theatre Problems

VCD F102 - Color Design

VCD H348 - History of Photography

VCD H390 - Topics in Art History

VCD H490 - Topics in Art History

VCD H495 - Readings and Research in Art History

VCD N198 - Introduction to Photography for Nonmajors

VCD N274 - Digital Imaging

VCD P151 - Design Fundamentals I

VCD P152 - Design Fundamentals II

VCD P243 - Photography Fundamentals

VCD P253 - Principles of Graphic Design I

VCD P254 - Principles of Graphic Design II

VCD P255 - Lettering and Typography

VCD P261 - Layout and Finished Art

VCD P271 - Illustration I

VCD P272 - Illustration II

VCD P273 - Computer Art and Design I

VCD P300 - Professional Practice Internship

VCD P343 - Advanced Photography I

VCD P344 - Advanced Photography II

VCD P351 - Advanced Design I

VCD P352 - Advanced Design II

VCD P356 - Package Design

VCD P357 - Display and Design

VCD P371 - Illustration III

VCD P372 - Illustration IV

VCD P374 - Computer Art and Design II

VCD P443 - Advanced Photography III

VCD P444 - Advanced Photography IV

VCD P450 - Senior Project

VCD P453 - Graphic Design III

VCD P454 - Graphic Design IV

VCD P475 - Computer Art and Design III

VCD P476 - Three-Dimensional Computer Modeling

VCD P478 - Computer Animation

VCD P490 - Topics in Studio Fine Arts

VCD P495 - Independent Study in Fine Arts

VCD P590 - Topics in Studio Fine Arts

VCD S105 - Introduction to Design

VM 10200 - Careers in Veterinary

WOST W210 - Introduction to Women's Studies

WOST W225 - Gender, Sexuality, and Popular Culture

WOST W240 - Topics in Feminism

WOST W301 - International Perspectives on Women

WOST W302 - Topics in Women's Studies

WOST W304 - Feminist Theories

WOST W340 - Topics in Lesbian and Gay Culture

WOST W400 - Topics in Women's Studies

WOST W480 - Practicum in Women's Studies

WOST W495 - Readings and Research in Women's Studies

Part 7: Services

Click on a link to be taken to the entry below.

1. Academic Advising

While students are ultimately responsible for accomplishing their own educational goals and progressing toward graduation, IPFW is committed to helping them meet this responsibility by ensuring access to quality academic advising. This is evidenced by the Academic Advising Council, a group of advisors and others (including students) from across campus that continually strives to improve advising services. Academic advisors are available to provide students with accurate, up-to-date information and appropriate guidance on academic matters. Students may find the names of their academic advisors by accessing http://my.ipfw on the IPFW home page or by contacting their academic units.

Students will benefit most from academic advising only when they accept a major share of the responsibility for seeking timely advice. Other, more specific obligations in the shared relationship between students and their academic advisors are as follows:

It is the academic advisor's responsibility to

- Be knowledgeable about university, school/division, and department academic regulations.
- Establish, maintain, and clearly post adequate and suitable office hours for advising (including information on summer availability).
- Assist the student with understanding degree requirements and the proper sequencing and selection of courses. This includes being knowledgeable about developmental course placement and any published changes in requirements.
- Assist the student with determining practical and manageable academic loads.
- Assist the student with monitoring academic progress.
- Document approved exceptions to the student's academic program.

- Explain the relationships among degree requirements, departmental philosophy, and as necessary, certification criteria.
- Assist the student with considering areas of enrichment appropriate to abilities and goals.
- Assist the student with linking programs of study to relevant career opportunities.
- Act, when appropriate, as a referral agent to other university personnel and services.

It is the student's responsibility to

- Be knowledgeable about university, school/division, and departmental program requirements; academic regulations; and calendar deadlines specified in the *Bulletin, Schedule of Classes*, and departmental publications.
- Consult with his/her advisor whenever appropriate and in a timely manner.
- Be prepared for all scheduled advising sessions.
- Make academic decisions based upon the information obtained or recommendations offered. Academic advisors will not make decisions for students.
- Act upon academic decisions in a timely manner.
- Maintain personal records of academic progress, including documentation of approved exceptions to stated program requirements.
- Seek additional or supplemental advice from other university personnel or services as needed or recommended.
- Present and candidly discuss factors (such as employment, commuting distance, and other circumstances) that might influence selection of classes, registration processes, and other academic planning.

2. Academic Success Center (ASC)

ASC is the home to three divisions including:

- **Center for Academic Support and Advancement (CASA).** CASA provides an array of support services for promoting students' academic success. Course-specific tutoring and computer-based tutorials help to develop understanding and proficiency while building confidence. With CASA, underprepared students can prepare, prepared students can advance, and advanced students can excel. Kettler G23 (260-481-6817)

- **First Year Experience (FYE).** FYE makes it easier for students to find their way around, make friends, and succeed academically. Students will connect with other students, faculty, and staff through exceptional academic programs and an exciting campus life. A powerful way to experience FYE is through Learning Communities, which consist of groups of students in linked or paired courses. Communities foster a deeper understanding, integrate different classes with each other, and contain a social element that links classroom experiences with fun and rewarding activities both on and off campus. Kettler G25 (260-481-6077)

- **Mastodon Advising Center (MAC).** MAC is dedicated to advising students classified as exploratory, deciding, and non-degree. Kettler 109 (260-481-6077)

3. Alumni Relations

More than 44,000 graduates, residing in 50 states and 38 countries, are alumni of IPFW. With 80 percent of IPFW alumni remaining in Indiana, their work is seen in the growth and economic development of the state.

IPFW students have a chance to connect with alumni in a variety of ways, including:

Fall dining etiquette and mentoring dinner. Learn business etiquette and then have dinner with an IPFW graduate who is in the career field the student hopes to enter.

Personal student-to-alumni one-on-one visits. Connected via the alumni office, you can chat with or spend the day with an IPFW graduate in the career field you would like to be employed.

Fall homecoming. Celebrated during the pre-game with IPFW graduates, faculty, and staff.

Legislative issues luncheon. Each fall, students are asked to join alumni and faculty in having lunch with our northeast Indiana legislators and talking about the financial needs of IPFW. Each spring, we transport students, alumni, and faculty to the Indianapolis statehouse for another luncheon with our northeast Indiana legislators.

Scholarships. Students who are alumni or children of alumni are eligible for more than $5,000 in scholarships through Alumni Relations. Applications are available at the beginning of the spring semester.

Alumni Relations is located in Walb 125, 260-481-6807, www.ipfw.edu/alumni.

4. Athletics, Recreation, and Intramural Sports

Athletics, Recreation, and Intramural Sports (Gates Sports Center 210, 260-481-6643) administers sports-related university activities and manages the Gates Sports Center's fitness center and manages Healthy Purdue wellness events and programs. Contact Athletics for further information about programs and fees.

Intercollegiate athletics are open to all qualified students. IPFW competes in the National Collegiate Athletics Association (NCAA) Division I and is a member of The Summit League and the Midwest Intercollegiate Volleyball Association (MIVA). IPFW offers the following programs:

Basketball	Baseball	Volleyball	Golf
Cross Country	Soccer	Tennis	
Indoor Track (Women's)	Outdoor Track (Women's)	Softball	

Information about athletics participation is available from the Athletics, Recreation, and Intramural Sports and the Admissions offices, or go to www.gomastodons.com.

Intramural programs are open to all eligible IPFW students, faculty, and staff and include the following sports: badminton, basketball, billiards, flag football, racquetball, table tennis, volleyball, and wallyball. Annual tournament events include a 5K run/walk event and a golf meet. Call 260-481-6617 for more details.

Gates Sports Center is the fitness center on campus for all IPFW students with valid IPFW ID cards. Memberships are also available to IPFW student spouses, faculty, staff, alumni, and community members. Indoor facility offers a 1/9 mile indoor walk/running track, strength training room, cardiovascular conditioning room, racquetball courts, wallyball courts, basketball, courts, core conditioning area, and fitness class room. Outdoor facilities include 5km and 10km cross country courses, soccer fields, baseball and softball, fields, and tennis courts. Fitness services include fitness assessments, fitness classes, "getting started" fitness consultations, nutrition consultations, personal fitness training packages, free education/awareness handouts, and special events such as fitness workshops and walk/run events. For membership costs and more facility information, call 260-481-6655, 260-481-6647, or visit our Web site at www.ipfw.edu/fitness.

Healthy Purdue wellness events, services, and programs on campus are available to IPFW students, faculty, staff, retirees, and community members. Programs and services are implemented at Gates Sports Center, the IPFW/Parkview Health and Wellness Clinic, and various campus locations. All opportunities are designed to education, motivate, and support individual health needs and goals. Physicals, sick care, and other medical services are offered at the clinic. Health awareness workshops, 6–14 week programs, wellness screenings, blood health screenings, flu shots, and special events like Mental Health Day, the Great American Smokeout "stop smoking" Block Party, Eating Disorder Awareness Week, and a Health Fair are also provided by the wellness staff. For information on IPFW wellness, call 260-481-6647, 260-481-6746, or visitwww.ipfw.edu/health

5. AV Technology Services (AVTS)

AV Technology Services provides AV media and technology support services on campus for university purposes. The range of equipment and services provided by AVTS to the campus community can be discussed by calling the AVTS office at 260-481-6519, or visit www.ipfw.edu/avts

AVTS services can be scheduled in person at the AVTS office in Science Building, G43, by e-mail at avscheduling@ipfw.edu, by online request at www.ipfw.edu/avts/request, or by phone at 260-481-6519. For student activity functions, requests should be made through the Student Life office. AVTS office hours are 8 a.m.–5 p.m., Monday through Friday.

6. Bookstore

Follett's IPFW Bookstore (Kettler G10, 260-483-6100) has served the academic community at IPFW for more than 35 years, fulfilling students' needs from freshman classes to purchasing graduation apparel. Conveniently located in Kettler G10, the bookstore offers textbooks, general books, academically priced software, computer hardware, apparel, gifts, and more. In addition, the bookstore gives you the convenience of ordering your textbooks and other items online at efollett.com These items can be purchased for pick-up at the bookstore or shipped to your home. You can contact the bookstore at 260-483-6100 or by e-mail at bookstor@ipfw.edu.

7. Career Services

Career Services (Kettler 109, 260-481-0689) offers a variety of services to meet the career development needs of IPFW students and alumni including career counseling, self-assessments, and internship and job search assistance. Students who need help choosing a major or career can take our career planning class called EDUC X210. In addition, Career Services coordinates various programs throughout the year to assist students and alumni with their job search, including career fairs and networking events. Finally, many companies post a variety of employment opportunities with our office. Work-study, part-time, full-time, and internship opportunities are posted on JobZone, and our free job and résumé database is available to IPFW students and alumni. For more information, please visit our Web site at www.ipfw.edu/career or call 260-481-0689.

8. Center for Women and Returning Adults

The Center for Women and Returning Adults (CWRA) (Walb 120, 260-481-6029) serves as an advocate for women and nontraditional students by providing academic, financial, and personal assistance while simultaneously familiarizing them with the network of services available on campus or in the community. The CWRA provides a continuum of services directed toward an extremely diverse subculture within the campus community. The nature of our services extends beyond the campus or student life spectrum into the life-planning arena that is specific to nontraditional students or individuals and family members. Our involvement in child care, housing, financial, and domestic abuse issues requires that our services be directed from the campus to the community. Special ongoing efforts designed to meet the needs of our subculture include STARS (Starting, Transfer, and Returning Students) orientations and Students with Families workshops and entertainment.

9. Child Care

IPFW partners with The Learning Community to provide child care for IPFW faculty, staff, and students at a discounted rate. The Learning Community is located at 2041 Reed Road. Hours of operation during fall, spring, and summer semesters are 6:30 a.m.–6:30 p.m., Monday through Friday. TLC provides care for infants to children 12 years old. For registration and fee information, contact TLC at 260-424-8852 or visit www.tlckidsfirst.com.

10. Collegiate Connection

The Collegiate Connection (Kettler 102, 260-481-5478) program is an exciting opportunity for students to earn college credit while attending high school. Collegiate Connection means:

- Earning dual credit—college and high school.
- Taking more advanced courses or courses not offered at the high school level.

- Exploring a career direction.
- Earning accredited transferable university credit.
- Experiencing college!

Students must meet the following criteria for participation in the Collegiate Connection program:

- Passed both sections of the ISTEP or End of Course Assessment
- Maintain a B average
- Completed (or will be able to complete) enough high school credits to meet CORE 40 or Academic Honors high school graduation requirements
- Parent/guardian approval

As a Collegiate Connection student, you may take any IPFW course that is appropriate for a college freshman. Some financial aid is available based upon need and is made possible with the support of the Lincoln Financial Foundation. Any student meeting the admission requirements and who qualifies for free and/or reduced textbook/lunch program is eligible to take up to two classes per semester (fall/spring) tuition-free. Students are responsible for their textbooks and transportation.

For additional information, please call 260-481-5478, e-mail connection@ipfw.edu, or visit the program Web site at www.ipfw.edu/cconnect.

11. Computer Resources

IPFW's computing environment includes access to networked computers and a variety of software, from word processing to discipline-specific applications.

Student accounts (includes e-mail, my.ipfw, student-access labs). Accounts for student computing resources are created upon your admission to IPFW. You must complete an activation process before using the account including sending or receiving e-mail. Your e-mail accounts are accessible from any student-access lab or the Web. Student accounts remain active as long as you are enrolled.

Web space. Each student and official student organization receives 10 MB of Web space to be used in conjunction with university responsibilities.

Computer labs. All student-access computer labs and computer-equipped classrooms are capable of accessing many software applications, student e-mail, and the Internet. The student-access computer labs are in Kettler Hall 204A and 217; Neff Hall B71 and B73 (a shared-use lab); Science Building G15; Helmke Library; and Walb Student Union 221. Besides these student-access labs, some schools and departments provide their students with access to additional specialized labs. The sponsoring departments define their availability and hours.

Getting help. For the most current campus computing information and software documentation, visit IT Services' Web site at www.its.ipfw.edu. Student consultants are available in person or via phone to assist students during most open lab hours. Student consultants cannot do assignments for students, but they can answer general computing questions. In addition, IT Services provides consultants at the Help Desk in Kettler 206, 260-481-6030. Help Desk staff can answer questions about specific computer services and facilities available to students.

12. Continuing Studies, Division of

The IPFW Division of Continuing Studies (Kettler 145, 260-481-6619) provides lifelong learning opportunities through its credit programs and public courses for professional development and personal enrichment. The division manages approximately 20,500 enrollments annually.

The division increases student access to internationally recognized Indiana University and Purdue University degrees by partnering with IPFW's academic departments to provide the alternative delivery of college credit courses. The division manages off-campus instruction (Auburn, Bluffton, Decatur, the Public Safety Academy of Northeast Indiana, Kendallville, and the IPFW Warsaw Center), distance-learning delivery (TV, Internet, and interactive video

conferencing), and the university's Weekend College program. In addition, the division administers the associate and bachelor's degrees in general studies (A.A.G.S and B.G.S.) and offers special workshops for teachers that provide graduate credit applicable toward relicensure.

The Division of Continuing Studies also provides noncredit options, many of which yield continuing education units. These include public courses for personal and professional development and customized corporate training for regional businesses. For more targeted, in-depth training, selected professional development courses are grouped into certificate programs. These options offer students concise, career-related education.

For more information about the Division of Continuing Studies and a listing of available courses, see www.ipfw.edu/dcs.

13. Crossroads: Connecting Learning Opportunities

To help you avoid the typical roadblocks experienced by transfer students—losing credits, time, and money—Ivy Tech Community College–Northeast and IPFW are working together to ensure that certain courses will be equivalent and transferable between both institutions. That means you can take a variety of courses at Ivy Tech then transfer the credits to IPFW. Both schools have approved associate-to-bachelor's degree programs that allow you to earn an associate degree at Ivy Tech and then complete a bachelor's degree at IPFW. With Crossroads, you can enroll as either a part-time or full-time student. There is no time limit for completing the program. For more information, call 260-481-4113 or visit our Web site at www.ivytech.edu/fortwayne/crossroads.

14. Dean of Students

The Dean of Students office (Walb 111, 260-481-6601) may be contacted regarding any problem you are experiencing. Either direct assistance or referral to the appropriate individual or office will be provided. In addition, the dean and associate dean handle student conduct problems and advise students of their rights and responsibilities, provide assistance in pursuing late full withdrawals, grade appeals, and student complaints, and serve as an advocate for students and their issues. The dean also oversees Personal Counseling Services and Services for Students with Disabilities.

15. Disabilities, Services for Students with

Services for Students with Disabilities (SSD) coordinates IPFW's programming for students with disabilities, as required by Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. Persons with qualifying disability conditions per these regulations are eligible for specialized academic support services and other assistance through SSD.

SSD provides free and appropriate academic aids and services including reader and sign-language interpreter services, accommodated test-proctoring facilities, disability-specific career/academic/personal counseling, coordination of the use of accessible computer workstations across campus, and more. SSD also serves the campus community as advocate/consultant on disability-related issues.

IPFW does not provide personal attendant care or transportation services. You must be able to attend to your personal care and needs or you must arrange independently for such services if needed. Although a personal escort may be provided during times of inclement weather, you are responsible for your transportation to and from campus and between classes and other facilities. You are responsible for attending classes as required by your class instructors' attendance policy.

To request services on the basis of disability or to receive further information, call 260-481-6657 (VOICE/TTD) or visit the director of SSD in Walb 113.

16. Diversity and Multicultural Affairs

Diversity and Multicultural Affairs (Walb 118, 260-481-6608) provides a vital support system for African American, Asian American, Hispanic, international, Native American, and other underrepresented students enrolled at IPFW. Evening appointments can be arranged for students who cannot visit the office during regular hours.

Services include networking opportunities, cultural/heritage programs, educational and personal counseling, leadership development and enhancement, mentoring, workshops, and study tables.

Diversity and Multicultural Affairs also assists in the development, administration, and evaluation of student recruitment and retention efforts; sponsors outreach and programs for early access to higher education; and provides cultural diversity training for IPFW faculty and staff.

First-generation and Nontraditional College Student Support Services (Walb 118, 260-481- 6847). Academic-success programs, academic and personal advising, and general support services are provided.

African American Student Support Services (Walb 118, 260-481-6604). Academic-success programs, cultural heritage activities, and academic and personal advising are provided. Many activities are planned in cooperation with the Black Collegian Caucus.

Hispanic Student Support Services (Walb 118, 260-481-6847). Individual academic and personal assistance, scholarship and internship information, and information regarding campus and community events are all available. Many programs are coordinated with Hispanos Unidos, which is open to all members of the campus community interested in Hispanic culture.

Asian American Student Support Services (Walb 118, 260-481-6608). Academic support, academic and personal advising, and cultural activities are available. Activities are coordinated with various Asian American student organizations.

Native American Support Services (Walb 118, 260-481-6847). Cultural heritage programs and academic and personal advising are provided. Many activities are planned in cooperation with United Native American Students.

17. Emergency Health and Security Services

For life-threatening emergencies, dial 911 from any university office telephone; then notify university police by calling 260-481-6911. From campus access-only phones, dial university police directly (16911). University police will call for additional assistance.

For routine healthcare needs, you are expected to remain under your personal physician's care while attending IPFW.

Escort service to and/or from classes for safety reasons is available any time by dialing 16900 from any campus telephone or 260-481-6900 from a cell phone.

University Police (Support Services Building 102, 260-481-6827) and its officers are empowered to enforce state and local laws, as well as campus traffic and conduct regulations, and provide 24-hour emergency services on campus. The department conducts continuous security patrols, furnishes disabled-vehicle assistance, and maintains lost-and-found articles. Students and staff are urged to report all suspicious activity or other hazards to the department. Crime prevention policy information, crime incidence, and arrest statistics are available from University Police.

18. Financial Aid

IPFW attempts to meet the demonstrated financial need of all applicants. The IPFW Financial Aid office uses grants, scholarships, loans, and part-time university employment to provide financial assistance to IPFW students. Review programs and eligibility information at www.ipfw.edu/financial for specific information about eligibility requirements; application procedures; the types of aid available; and regulations related to scholarship, grant, loan, and other forms of assistance. A free brochure on federal aid is available in the Financial Aid office, or you can access the same information athttp://studentaid.ed.gov.

Most financial aid programs at IPFW are based on the premise that the student and his or her family are responsible for paying the cost of the student's education, with consideration given to the family's current financial circumstances. IPFW financial assistance is awarded to help meet educational expenses not covered by the family's contribution.

Financial aid awards may be used to meet some costs of study-abroad and student-exchange programs, if IPFW credit will be awarded for the program and other requirements are met.

To apply for assistance, the student must file the Free Application for Federal Student Aid (FAFSA) at www.fafsa.ed.gov and list Indiana University-Purdue University Fort Wayne (school code 001828) as the college the student plans to attend. The FAFSA generates the expected online family contribution (EFC), which is used to determine eligibility for financial aid; it is available online shortly after January 1. Applications from IPFW students that are received by March 10 at the federal processor are given priority consideration at IPFW. Information about specific procedures and assistance with filling out the FAFSA are available at the Financial Aid office.

If the student is eligible for financial aid and has submitted all additional required materials, he or she will receive e-mail notification when the awards are created. Freshmen will receive an e-mail and a paper award letter. To accept the aid that is offered, the student must log on to my.IPFW.edu and accept aid through the Financial Aid section under the Enrollment tab. Aid that a student accepts will be applied as a credit on the e-bill received after registering for classes.

The State Student Assistance Commission of Indiana (SSACI) requires students to be enrolled in at least 12 credit hours each semester through the end of the fourth week of classes in order to keep the Indiana Higher Education Award and/or the Twenty-first Century Scholars grants.

Students may request a review of any decision concerning eligibility for aid, including satisfactory academic progress. A financial aid administrator will review the situation with the student. The student may appeal any decision to the director of financial aid. Final appeals may be made to the Scholarship and Financial Aid Advisory Committee. All determinations by this committee are final.

Satisfactory academic progress. All financial aid recipients are required to make reasonable academic progress toward completion of degree requirements. Standards for satisfactory academic progress involve two tests:

1. Students must successfully complete 67 percent of the credits attempted and earn at least the minimum GPA shown below:

Credits attempted	Minimum cumulative GPA
0–29	1.5
30–59	1.7
60–180	2.0

Grades of I,W, F, or audit will not count toward credits successfully completed.

2. Students will not be allowed to receive aid for more than the total number of credits shown below for the certificate or degree program they are pursuing:

Bachelor's degree	180 credit hours
Associate degree (two-year programs)	90 credit hours
Associate degree (three-year programs)	130 credit hours
Certificate	45 credit hours
Master's Degree	45 credit hours

Financial aid recipients who do not meet the satisfactory academic progress standards will be placed on a probationary status and notified in writing that they have the opportunity to repair their record through their enrollment and counseling. Students who subsequently fail satisfactory academic progress standards will be notified in writing that

they are no longer eligible for financial aid. If extenuating circumstances exist, a written appeal must be filed within 30 days of the date of notification. The appeal form and specific instructions will be included with the notification letter.

The Federal Ombudsman Office is a final resource for student loan borrowers to informally resolve loan disputes and problems after first seeking help through other customer service avenues. The Ombudsman Customer Service Line is 877-557-2575, or you can visit http://studentaid.ed.gov.

19. First Year Experience (FYE)

First-year students at IPFW have the unique opportunity to become active participants in a very successful program, the First Year Experience (FYE). FYE eases the transition from high school to college and is a key component in students' overall academic success. In addition, students make crucial connections (with other students, faculty, and staff) and participate in co- and extra-curricular activities. All first-year students are encourage to enroll in an FYE Learning Community.

Most FYE Learning Communities involves two or three linked courses specifically designed to integrate content. These courses will introduce students to different disciplines offered at IPFW and more importantly, will provide students with a social network that is critical to success. Nationwide research clearly indicates that students who participate in learning communities are more likely to succeed in college.

FYE Learning Communities are a great opportunity for first-year students to get connected...and stay connected to IPFW. For more information, go to www.ipfw.edu/fye or call 260-481-6077.

20. Health and Wellness Clinic

The IPFW/Parkview Health and Wellness Clinic provides comprehensive health services to meet the medical and psychological needs of students, faculty, and staff at IPFW.

Location. The clinic is conveniently located in Walb 234, 260-481-5748. Parking is available in parking garage #2 (next to Gates Sports Center).

Hours. The clinic is open from 8 a.m. to 5 p.m., Monday through Thursday, and 8 a.m. to noon, Friday. Special hours, which will be posted, are in effect for holidays, semester breaks, and summer.

Staff. The clinic is staffed with two nationally certified family nurse practitioners and a medical assistant. Our collaborating physicians are John Mellinger, M.D., and Mark O'Brien, M.D.

Appointments. Clients are seen on a walk-in basis up to one hour prior to closing.

Services provided. Our master's-prepared, nationally certified family nurse practitioners are able to

Assess/diagnose healthcare problems, obtain medical histories, perform physical examinations, and order and interpret diagnostic studies such as lab work and X-rays.

Treat and monitor minor and acute illnesses as well as chronic health problems, such as diabetes, and provide confidential gynecological services. Nurse practitioners prescribe medication and consult with physicians and other healthcare providers as needed.

Promote healthy living through patient education and counseling.

Allergy injections. Allergy serum may be stored at the clinic. Allergy injections can be given between 8 a.m. and 4:30 p.m., Monday through Thursday, and 8 and 11:30 a.m., Friday, during fall and spring semesters. Administration of allergy injections during summer hours is limited.

Health and wellness education. Health and wellness education includes screenings, assessments, consultations, workshops, classes, and resources to help individuals gain awareness and opportunities for better total wellness. Health

education and health counseling can include, but are not limited to, weight management, heart-healthy living, sports performance, eating disorders, diabetic control, smoking cessation, and stress management. Registered dietitians and certified physical fitness instructors are on staff.

Health fees. Our clinic is a fee-for-service health facility. Students at IPFW are NOT assessed a student health fee. We request payment at each visit by cash, check, or credit card.

Students enrolled in the university's health insurance will be charged their co-pay for a routine office visit. Due to the large number of health insurance plans, please call the clinic to see if we file with your particular insurance. We also accept Medicare and Medicaid payment. Please bring a copy of your insurance card for clinic appointments.

Upon checking out, an insurance-ready, itemized statement will be provided so that you may submit it to your insurance company.

For those individuals with insurance that is out of network or who are without insurance, healthcare packages are available for purchase. Contact the Health and Wellness Clinic at 260-481-5748 for additional information. Visit the IPFW/Parkview Health and Wellness Clinic Web site for the most up-to-date information at www.ipfw.edu/clinic. Visit the Health and Wellness Web site for up-to-date campus wellness activities at www.ipfw.edu/health.

*Above information is subject to changes.

21. Honors Program

The Honors Program (Walb G25, 260-481-6924) is an undergraduate program that seeks to create learning opportunities and an environment of intellectual excitement and discovery through enriched courses of study and activities within a learning community. Honors courses supplement and enrich studies in any academic major. You can take as many or as few honors courses as you choose. Participation in the Honors Program can help you get jobs and get into graduate programs after graduation. The Honors Certificate can give you a leading edge in today's tight job market. Honors courses are multidisciplinary and tend to be more interactive. Class size is limited to 20 students, so there is more interaction between you and your instructors than in other classes.

The Honors Program also offers many social and cultural events outside of the classroom. Each semester, social events are planned to build an honors community and to enhance the college experience. There are opportunities to visit museums, view theatrical performances, and attend lectures. There are also parties and receptions that are primarily social events. These programs give you an opportunity to get to know fellow students and faculty members outside of the classroom.

See Honors Program in Part 5 of this Bulletin for details.

22. Housing Information

IPFW Student Housing (260-481-4180) provides apartment-style living for full-time students at IPFW. The IPFW Student Housing community encourages the freedom of apartment-style living without sacrificing the convenience and comfort of off-campus living. Each unit is furnished and has a fully equipped kitchen including microwave, trash disposal, and dishwasher. Bedrooms are individually keyed for privacy, and each bedroom is set up with high-speed Internet and cable. Community amenities include a computer lab, fireside community lounge, a fitness room, and 24-hour laundry facilities. Additional information is available from the Student Housing office or by visiting the Student Housing Web site at www.IPFWstudenthousing.com.

23. Independent Study

A variety of credit courses are offered through the Indiana University Division of Extended Studies' Independent Study Program by correspondence and online at the Bloomington campus. Brochures describing available courses and enrollment procedures are available from IPFW Admissions (Kettler 111, 260-481-6812) or online at http://scs.indiana.edu. To apply correspondence-course credit toward a degree, an enrollment form must be signed by the student's advisor, department chair, or dean/director.

24. International Student Services

International Student Services (Kettler 104, 260-481-6034) recruits, admits, enrolls, and retains international students. The office provides a host of admissions services including foreign degree certification, academic credential review, and transfer credit evaluation. ISS organizes an extensive international orientation one week prior to the start of the fall and spring semesters.

IPFW is authorized under federal law to enroll non-immigrant students. ISS attempts to ensure that IPFW complies with all applicable laws set forth by the Department of Homeland Security, the U.S. Department of State, and other government agencies. ISS offers a variety of immigration services including assistance with change of status, extension of status, on- and off-campus employment, visa counseling, and others.

ISS helps enrolled international students with obtaining a social security number, state ID, and driver's license. The office also pre-registers new incoming international students, administers the required international health insurance policy, and assists with non-resident tax preparation assistance. The office co-sponsors various trips and activities, campus and community ethnic and cultural celebrations, and serves as the advisor for the International Student Organization (ISO).

25. Library Services

 Walter E. Helmke Library creates a virtual and physical environment that supports the IPFW community in its efforts to discover and access vital information. To fulfill our mission (http://mission.lib.ipfw.edu), we provide high-quality information resources, coordinated information services and expertise, and innovative instruction fully integrated with the educational goals of IPFW—so you can

- Get individualized help whenever the library is open, 330 days a year
- Ask a librarian at http://ask.lib.ipfw.edu (in person, by e-mail, by IM chat, or by phone)
- Arrange a research consultation with a subject librarian, by appointment, or on a walk-in basis
- Find out more by calling the Library Service Desk (260-481-6512)

We collaborate within and outside the university to increase information literacy and student success—so you can

- Come to the library to study alone in the company of others
- Engage in productive group study
- Enjoy comfortable study spaces
- Browse convenient, relevant collections

We value equity of access to and ethical use of information, respect for the privacy of library users, and intellectual freedom—so you can

- Access a vast array of scholarly information from on or off campus
- Find 40,000+ full-text journals (from the individual article) via our powerful FIND IT linking tool, or (from the journal level) through our E-Journal Finder portal at http://e-journal.lib.ipfw.edu
- Use Document Delivery Services at http://dds.lib.ipfw.edu or IUCAT's Request Delivery to locate library materials that the library does not own
- Rely on ReservesEXpress at http://rex.lib.ipfw.edu to obtain required and supplemental course readings, 24/7
- Check out a book or DVD with your Mastodon Card—get it at the Walb Student Union

We dedicate effort to providing stewardship of the human record by collecting, describing, and organizing information—so you can

- Explore the library's Find Resources By... Title, Subject, or Type portal at http:///mdb.lib.ipfw.edu to use quality databases and indexes, encyclopedias, style guides, and much more

- Retrieve unique digital audio, video, and document collections through the mDON Digital Object Network at http:///mdon.lib.ipfw.edu
- Get connected to public and government information at the local, state, national, and international level through the Public Information Reference Service at http://pirs.lib.ipfw.edu

We employ technology wisely to offer responsive delivery of resources, customized research consultation, and an environment that encourages independent exploration in the pursuit of academic excellence—so you can

- Learn to evaluate the quality of your information with the aid of tutorials, course guides, and research tools created by librarians—see our Foraging for Information Worksheet, Is Your Web Site Credible?, Is Your Journal Scholarly?
- Take a virtual tour of the library at http://tour.lib.ipfw.edu, discover how to do library research, and enhance your information foraging skills
- Plan to make the future IPFW Learning Commons your destination—in the heart of the library, at the center of campus

We invite you to explore the library's Web site at www.lib.ipfw.edu. Meet you at the library!

Environment for discovery. Services for delivery.

You discover. We deliver.

26. Mastodon Advising Center

The Mastodon Advising Center (Kettler 109, 260-481-6595) is responsible for providing academic advising for students classified as exploratory, deciding, and nondegree. The academic advisors will provide assistance in the following areas: course selection/planning; academic monitoring; university, college, and department regulations; and identifying academic major and career choices. Students also have the opportunities to spend a semester or academic year at another college or university at a cost similar to IPFW, through the National Student Exchange program.

Special Categories of Students Advised in MAC

MAC provides academic advising for students who are admitted in the following special categories:

- **Exploratory.** The exploratory majors program serves students who do not qualify for regular admission into their intended major and would benefit from the extra attention. Professional advisors in the Mastodon Advising Center (MAC) provide information and direction toward special programs, sound academic skills, and tutorial services. Those admitted to the program are encouraged to participate in clubs and activities related to their intended major and work closely with professional academic advisors to ensure that they reach their educational goals. Students in the program must report their academic progress to their advisors, who can help identify any support services that may be needed. Students who complete at least 12 credits and earn a cumulative GPA of 2.0 or higher are eligible to declare their academic major.
- **Deciding.** Deciding students entering IPFW and who are undecided about a major are advised in MAC. While affiliated with MAC, students are given an opportunity to take classes without having to make an early commitment to a major. Deciding MAC students are encouraged to enroll in career-exploration courses, meet with career counselors in career services, and visit academic units to investigate potential majors.
- **Nondegree or guest students**. Students who are visiting or waiting for regular admission to IPFW may be assigned nondegree (guest/temporary) student status and assigned to MAC for course enrollment and related assistance. After earning 24 credits in nondegree status, students may register for additional credits only after applying for and being granted regular admission status through Admissions.

- **Special regulation on readmission**. Students who have been dismissed from IPFW for academic reasons are encouraged to discuss readmission procedures with a MAC advisor. IPFW students who have been dismissed and are seeking readmission through MAC must attend a readmission workshop and apply for early readmission consideration. Contact MAC for further details.

Regular office hours are 8 a.m.–6 p.m., Monday and Tuesday, and 8 a.m.–5 p.m., Wednesday and Thursday, and 9 a.m.–5 p.m., Fridays during fall and spring semesters. For more information, visit www.ipfw.edu/mac or call 260-481-6595.

27. Mastodon Academic Performance Center

The Mastodon Academic Performance Center (MAP) (Kettler 109) provides academic support for student-athletes, helping them to achieve solid academic progress, maintain NCAA athletic eligibility, and graduate in their respective disciplines. Additionally, the MAP Center is responsible for the implementation of the NCAA Champs Life Skills program and supervision of the Student-Athletic Leadership Team (SALT).

28. Math Course Options

Flexible pacing is an option available for some math classes. Students work on modules at their own pace with an instructor and aides. Testing is done at the Math Test Center (Kettler G18) at the completion of each module; tests are retaken until the required level of performance is met. Successful completion of all modules yields the course grade. The completion of a specified number of exams allows continuation of the course in the next semester.

Out-of-class testing for math courses is an option available for some math classes. It involves traditional lectures, but tests are administered at the Math Test Center. No time limits are placed on tests other than the operation hours of the Math Test Center. Each test (except the final) can be taken up to three times, with only the highest score recorded.

29. Math Test Center

The Math Test Center (Kettler G18, 260-481-5722) is primarily for students who are taking math courses with flexible-paced instruction or sections that use out-of-class testing. In order to receive a test, students must have a photo ID. More information and current hours of operation can be found at www.ipfw.edu/casa.

30. Military Science and Leadership (Army ROTC)   ^ TOP

Army Reserve Officers Training Corps (ROTC) is one of the best leadership courses in the country offered within a college curriculum, and it is available at IPFW through the College of Engineering, Technology, and Computer Science. During classes and field training, students learn first-hand what it takes to lead others, motivate groups, and conduct missions as an officer in the Army. ROTC students maintain a normal academic schedule like all college students, but they enroll in military science and leadership courses each semester. Upon graduation form IPFW and the Army ROTC, cadets are commissioned as a second lieutenant.

For more information, call 260-481-0154.

31. Office of Academic Internships, Cooperative Education and Service Learning (OACS)

Cooperative education (co-op) is a nationally recognized academic enhancement training program that allows students to gain valuable employment experience related to their majors. Students are paid competitive wages and may receive academic credit. Local employers offer co-op jobs in biology, chemistry, communication, English, mathematics, physics, engineering, technology, computer science, business, and organizational leadership and supervision. Eligibility requirements include current university enrollment, completion of freshman courses toward a bachelor's degree, and the established departmental GPA prerequisite.

Service learning is a credit-bearing, educational experience in which students participate in an organized service activity that meets identified community needs and reflects on the service activity in such a way as to gain further understanding of course content, a broader appreciation of the discipline, and an enhanced sense of civic responsibility.

Academic Internships involve any work experience that is related to your educational and career goals. Internships may be part time or full time, paid or volunteer, and are available in many professional areas including law corrections, probation, education, health, community services, government, private business, and many more.

OACS is open Monday–Friday, 8 a.m.–5 p.m., and by appointment (www.ipfw.edu/oacs; Neff Hall 337, 260-481-6939).

32. IPFW/Parkview Student Assistance Program (SAP) - Counseling Services

IPFW/Parkview Student Assistance Program (SAP) provides free and confidential short-term services to all currently enrolled IPFW students. SAP works with a variety of concerns, including but not limited to, depression, anxiety, relationship issues, substance abuse, and eating disorders. SAP is available for consultation, outreach, and workshops upon request. They are located in Walb 210. Please call 260-373-8060 or 800-721-8809 to schedule an appointment.

33. Police

Campus safety and security information. IPFW strives to provide a safe and secure environment for students, staff, and visitors. The Annual Security Report details a variety of safety services, policies, and information available to students, staff, and visitors. To obtain a copy, contact Admissions, University Police, or Human Resources. To view the report, go to http://www.ipfw.edu/police/reports/IPFW_Current_Annual.pdf.

University Police is staffed 24 hours per day and is located in the Support Services Building. Ticket payments are accepted from 7:30 a.m.–3:30 p.m., Monday through Friday. A payment drop box is available 24/7. Police reports are available Monday through Friday, 7:30 a.m.–5 p.m. For additional information, go to www.ipfw.edu/police.

Emergency Procedures

First aid. In life-threatening emergencies, call 911 from a campus telephone or notify the university police by calling 16911 from any campus telephone or any emergency telephone on campus.

Escort service. Call 16900 to give your location and to request service.

Fire emergencies. Fire alarm pull boxes are located in all campus buildings. If you suspect a fire emergency, pull a fire alarm at once. Whenever you hear this continuous horn sound, use the nearest exit to leave the building quickly and as safely as possible. Once outside, move away from the building. Don't use elevators during fire emergencies or when you are in an otherwise unoccupied building.

Weather emergencies. The continuous sound of weather alert sirens indicates a TORNADO WARNING is in effect (a tornado has been sighted nearby). Take shelter in one of the following areas until notified by university officials it's safe to leave:

- (ET)   Engineering, Technology, and Computer Science Building ground-floor corridor
- (GC)   Gates Sports Center basement
- (KT)   Kettler basement or ground floor of south and east wings
- (LA)   Liberal Arts Building basement
- (LB)   Helmke Library basement
- (LS)   Life Sciences Resource Center, ground floor

(NF)	Neff Hall basement
(PG-1)	Parking Garage Ramp B Gold
(PG-2)	Parking Garage Lower-Level Interior Ramp
(RC)	Instrumental Rehearsal Room
(SB)	Science Building ground floor corridor
(VA)	Visual Arts Building ground floor restrooms or corridor
(WT)	Williams Theatre to Visual Arts Building ground-floor restrooms or corridor
(WU)	Walb ground-floor stair areas

If you are in the Support Services Building or Printing Services/Warehouse, go to the Liberal Arts Building basement.

Adverse weather. During the winter months, snow emergencies and snow recesses are occasionally unavoidable. During an adverse weather closing, classes are canceled, and only essential personnel are to report to the university. If you suspect that an adverse weather closing has occurred, please monitor radio and television stations for announcements or call the IPFW Weather Line at 260-481-6050.

Emergency Notification

Alert Contact Information. IPFW's Alert Contact Information system allows the university to contact you by phone, e-mail, and/or text regarding any campus situation that may affect you. Log on to http://my.ipfw.edu and locate the "Alert Phone Number" heading on the right side of the Web page. Click on the "Edit" button and enter the methods by which you would like to be contacted. (Your university-issued e-mail address is mandatory.)

You may be contacted for the following possible scenarios:
  –Weather conditions have closed the campus
  –Utility problems have affected all or specific parts of the campus
  –A hazardous material incident is affecting the campus
  –A hostile activity is affecting the safety of people on the campus

Once you have registered, your contact information will not be used for any other purpose than what is listed above. Messages delivered to you will always be brief, informative, and provide you with the directions necessary to ensure your safety.

Traffic Parking Rules Summary

Authority. These regulations are adopted pursuant to the authority conferred by the laws of the State of Indiana upon the Boards of Trustees of Indiana University and Purdue University.

The respective boards deem it necessary and desirable to make and enforce these regulations for the safety and welfare of students, staff, and visitors in protection of property and the safe operation of the IPFW campus.

University police are empowered to enforce state laws and campus regulations under the supervision of the vice chancellor for financial affairs.

Definitions. When used in these regulations, the following words and phrases have these meanings:

Parked vehicle. This is a motor vehicle with no licensed driver at the wheel.

Permit. This is a parking placard issued by University Police or its designees.

Restricted hours: Classes are in session between 7 a.m. and 11 p.m. Mondays through Saturdays and 10 a.m. and 11 p.m. on Sundays. During restricted hours, you must display a valid permit to park in designated "A" (employee) or handicapped parking areas. Appropriate coins must be placed in meters during these hours.

Vehicle. This is any propelled device with two or more wheels.

Visitor. This is a person who is neither a student nor a staff member, including people attending meetings or conferences.

Parking Permits

Registration procedures. Vehicle registration is required on an annual basis on or before the first day of classes for all students. Parking permits, including information about the annual fees associated with them, are available from University Police in the Support Services Building.

Parking permits issued for cars and trucks are to be attached to the rearview mirror post with the permit number visible from the vehicle front. Only a current permit should be displayed. The parking permit is for use only by the purchaser and is the property of IPFW.

Parking Regulations

"A" parking lots shall be used during restricted hours only by motor vehicles with an "A" permit (**designated by green lined spaces**). **Some, but not all, "A" lots change to open parking** after 5 p.m. on weekdays and 7 a.m. to 11 p.m. on weekends. Signs in each lot will indicate if and when the lot will change to open parking. Both parking garages have areas designated as "A" parking and metered short-term parking. All undesignated areas are considered open parking and no permit is required.

Special and temporary parking permits may be obtained from University Police when extenuating circumstances exist. If you arrive on campus and realize you do not have your permit, you may pick up a temporary permit at University Police.

Authorization to leave a vehicle on campus overnight must be obtained from University Police. Unauthorized vehicles left on campus 72 hours will be considered abandoned and will be removed. An accumulation of unpaid fines or improper parking will also provide cause for towing at owner's expense. Dock parking is only for loading and unloading vehicles. People who need to use the dock for more than 10 minutes must obtain authorization from University Police.

People operating motorcycles may park in a vehicle stall or on motorcycle pads. Vehicles shall be parked between painted stall lines or in front of bumper blocks that indicate individual parking spaces.

The Allen County Extension office's parking lot is for clients only, and not for use by the campus community.

Traffic Regulations

Campus vehicle operators must:

- obey all state and local regulations, including signs, signals, markings, and other traffic-control devices.

- not maintain a speed of more than 20 m.p.h. unless otherwise posted. In parking lots, the maximum speed is 15 m.p.h. Parking is never permitted within 15 feet of a fire hydrant or in designated fire lanes. People parking on grass will be ticketed and be responsible for any damages.

Pedestrians have the right of way in all crosswalks. If a pedestrian enters or is about to enter a marked crossing, approaching vehicles must stop while the pedestrian is in the crossing.

All traffic accidents that occur on campus must be reported immediately.

All bicycles must be parked in bicycle racks. Bicycles chained to trees or signs or taken inside buildings may be impounded.

Skateboard use on campus is prohibited. See University Police for the roller blading policy.

Violations and Fines

Meter Violation	$ 15
Failure to display a permit in "A" lot	$ 25
("A" permit holder who forgot permit)	$ 5
Improper Parking	$ 25
Moving Violation	$ 60
Handicapped Parking Only	$100
Fire Lane	$ 50
Displaying lost/stolen/counterfeit permit	$ 50

There is a charge to replace a lost or stolen permit.

Appeals. Appeal forms are available at University Police (in the Support Services Building) Monday through Friday, 7:30 a.m.–5 p.m. Campus tickets may be appealed to the Traffic Appeals Board, which consists of faculty, staff, and students. Appeal board decisions are binding and final.

If a ticket recipient does not respond or pay the fine within five working days from the date of issuance, University Police shall notify the recipient by mail that unless the ticket/fine is appealed in writing or is paid within 10 working days after the date of notice, the ticket recipient has forfeited any appeal privilege. An administrative encumbrance fee shall be added to each unpaid fine. No appeals will be accepted or considered by any university appellate body unless filed within the 15-day period.

Failure to satisfy delinquent fines may result in denial of future academic registration, denial of parking privileges, and/or removal of a vehicle from campus at the owner's expense.

34. Registration and Graduation

The IPFW *Schedule of Classes* is published each semester and the summer sessions and is widely distributed on campus and published online at http://my.ipfw.edu. The Web site provides detailed current information about

- course offerings
- registration days and times
- fees and refunds
- the semester/session calendar
- important deadlines
- final exam schedules
- general policies and procedures

Before you meet with your advisor, you should carefully examine each edition of the *Schedule of Classes* and make a tentative selection of classes in which you wish to enroll.

For the convenience of students with late-evening and weekend classes, a drop box is on the door of the registrar's office (Kettler 107). In most cases, deposited forms containing all applicable information and required signatures will be processed by noon on the next working day. Partially completed forms cannot be processed. This drop box is not secured for the deposit of checks, cash, or other financial transactions. All financial transactions are to be directed to the bursar's office (Kettler G57).

Graduation information. To be considered for graduation from an IPFW program, you must submit an application for graduation. If you do not apply for graduation by the deadline posted, you may not be considered for honors; your name may not appear in the Commencement program; and your spring degree may not be available at Commencement.

Please visit the registrar's Web site at www.ipfw.edu/registrar, and click on Graduation Information or contact your department.

If you are finishing your degree:	Application Deadline
Fall Semester	June 1
Spring Semester	Nov. 1
Summer Session I	Feb. 1
Summer Session II	Feb. 1

35. School-Based Program (SBP)

The IPFW School-Based Program is a partnership between IPFW and participating high schools in northeast Indiana. SBP offers college credit to qualified high school students who enroll in IPFW General Education courses that are offered at their local high schools during the regular school day and taught by approved high schools teachers who hold adjunct lecturer status with IPFW. SBP courses are administered from the Fort Wayne campus in conjunction with the Collegiate Connection program.

SBP is for high school students, generally juniors or seniors, who have adequate preparation and the desire for more advanced work. Through its course offerings, SBP provides an opportunity for high school students to begin college work while in high school. The SBP courses are actual college courses intended to allow a wide range of students to engage in college level work for college credit. SBP courses are designed for students who have both a solid academic foundation, whose interests can be furthered by acquiring college credit prior to graduation, and who make a serious commitment to completing the SBP course successfully.

You receive both high school and college credit while you

- Get an early start on your college degree (and perhaps finish sooner).
- Begin building a college transcript. (Most courses are transferable to Indiana colleges and universities.)
- Receive a substantial tuition remission.
- Gain access to IPFW technology and resources.
- Complete an Indiana high school honors diploma requirement option.
- Gain access to additional course choices designed for high-achieving students.

For more information, visit the IPFW SBP Web site at www.ipfw.edu/dcs/sbp, or call the Collegiate Connection office at 260-481-5478.

36. SPOT Learning Center

The SPOT Learning Center (Kettler G21, 260-481-5419) offers free tutoring, day and evening, for many courses. Students are allowed up to two free hours of a one-to-one tutoring per week per subject. Appointments for one-to-one tutoring must be made a day in advance through the online scheduling program TutorTrac at www.ipfw.edu/casa. Drop-in tutoring is offered for math and some science classes, and drop-in sessions allow the students to "stop by" and have a question answered. The current schedule for drop-in tutoring is available at www.ipfw.edu/casa/tutoring/options.shtml, on bulletin boards outside the SPOT, and with the SPOT secretary.

The SPOT Learning Center offers information concerning study skills through PowerPoints, CDs, videos, and computer programs. There is a speed-reading program on one of the computers that students may access any time the

SPOT is open. The SPOT has many handouts on subjects including learning styles, test-taking tips, how to stop procrastination, text anxiety, and others.

37. Student Exchange Program

The National Student Exchange (NSE) program (Kettler 109, 260-481-6595) allows eligible IPFW students to spend a semester or year studying at one of approximately 200 different universities and colleges in the United States, its territories, and Canada. The NSE program broadens students' cultural and educational experiences.

Participating students pay regular tuition fees to IPFW and have access to regular IPFW financial aid. While credits earned on exchange are recorded as resident credit toward the IPFW degree, exchange grades are not calculated in the IPFW grade-point average. Go to www.ipfw.edu/mac to schedule an appointment, or go to www.ipfw.edu/nse for more information.

38. Student Handbook and Planner

The *Student Handbook and Planner* is published each fall semester to inform students of the services, programs, and activities available at IPFW. It also contains important information on university policies and the Code of Student Rights, Responsibilities, and Conduct. The handbook is available at the Kettler Hall Information Desk, the Dean of Students office (Walb 111), Follett's IPFW Bookstore, and other campus locations.

39. Student Life and Organizations

Student Life (Walb 115, 260-481-6609) promotes extracurricular and co-curricular programs that complement and enhance each student's academic experience and personal development. In addition, Student Life serves as the planning resource for more than 100 student organization, offers leadership training, coordinates the new student orientation program (SOAR), the Freshmen Mentoring program, and the Co-Curricular Transcript program. Additional information is available in the *Student Handbook and Planner,* at the Student Life office, and on the Internet at www.ipfw.edu/stulife.

40. Student Technology Education Programs (STEPS)

STEPS is a program of free technology workshops offered by Information Technology (IT) Services and CASA. Workshop times are posted at www.ipfw.edu./casa/STEPS and are also available in computer labs and in the SPOT. No reservations are needed. Presently, the following computer application workshops are offered: PowerPoint, Endnote, Word, e-mail, Web design, e-Learning, setting up an APA or MLA paper, and research using the Web. Instructors may request a workshop to be given to their entire class. For more information, call CASA at 260-481-6069.

41. Supplemental Instruction

Supplemental Instruction (SI) is designed to assist with selected difficult courses. It consists of special, regularly scheduled study groups with trained leaders. The classes can include biology, chemistry, computer science, math and psychology, and others. SI begins the first week of the term. Usually the instructor of the class will announce the availability of SI the first day of class. Sessions are open to all students. Generally, students who attend SI regularly attain a grade one half to one full letter grade higher than those students who do not attend SI. The SI director can give you specifics, but SI students who attend at least five times pass their classes with an A, B or C 80 percent of the time while the non-SI rate is 60 percent. Even is students aren't specifically paired with an SI course, they can attend SI sessions that may be helpful to them, for example, any Math 153 student can attend SI for Math 153 even though it is assigned to a different instructor.

Visit http://ipfw.edu/casa/si/information.shtml for available SI sessions.

42. Testing Services

Testing Services (Kettler 232) administers IPFW placement tests (English, math, reading, and foreign languages), the Institutional SAT, national tests (CPA, CLEP, LSAT, MAT, PRAXIS, and SAT), correspondence-study examinations, career-assessment inventories, and board and certification exams for dental hygiene and dental assisting.

Placement tests. Students admitted to IPFW must follow the writing guided self-placement process and take the math placement test before registering for any class.

Transfer and/or nondegree students who have taken English composition and/or math at another college should check with their IPFW academic advisor about placement requirements. Placement test results are valid for two years from the date the exams are taken. Modern Foreign Language placement exams in Spanish, German, and French are also available. Contact Testing Services (Kettler 232, 260-481-6600 for an appointment. For information regarding the guided self-placement writing exam, please contact the Department of English and Linguistics at 260-481-6841.

43. Transcripts and Academic Records

The Office of the Registrar (Kettler 107) can provide official transcripts for students who have been enrolled at IPFW or any other IU or Purdue campus.

Copies of academic records (unofficial transcripts) for IPFW students are available from the registrar's office (Kettler 107).

If your record is not encumbered for any reasons described herein, you will (upon application to the Office of the Registrar and payment of any prescribed fee) be entitled to receive an official transcript of your complete record, including any major(s) and minor(s).

NOTE: The registrar's office is the ONLY university office authorized to issue official transcripts. All requests for these documents must be directed to that office.

44. Tutorial and Study-Skills Assistance

The Center for Academic Support and Advancement (CASA) (Kettler G23, 260-481-6817) assists students who want to improve their academic and study skills, need tutorial help in regular college courses, or would welcome advice on returning to college after a long absence from the classroom. It oversees a peer tutoring program in The SPOT (Kettler G21, 260-481-5419) that offers free individual appointments and regularly scheduled drop-in sessions. For appointments, sign up online at www.ipfw.edu/casa. CASA also provides English-as-a-second-language materials and coordinates the Supplemental Instruction program, the First Year Experience program, and the IPFW Writing Center (Kettler G19, 260-481-5740).

45. Veterans Services

The IPFW Veterans Services coordinator provides educational support services for veterans of the U.S. military.

Veterans' benefits information and counseling for first-time, continuing, or transfer students is available from the VA-benefits certifying official in the registrar's office (Kettler 107, 260-481-6126). If you are receiving veterans benefits, certification of your enrollment status is required each semester and should be requested at the registrar's office.

46. Voter Registration

Recent changes in the 1998 reauthorization of the U.S. Higher Education Act require colleges and universities to make available voter registration forms to all enrolled students. Any student not registered to vote may obtain an Indiana Mail-In Voter Registration Application (VRG-7) form, which is available at convenient locations throughout the

campus. Please visit the Office of the Registrar's Web site at www.ipfw.edu/registrar, and click on Voter Registration for more information.

The forms will be available at:

- Bursar Office–Kettler Hall
- Diversity and Multicultural Affairs–Walb Student Union
- Financial Aid Office–Kettler Hall
- Office of the Registrar–Kettler Hall
- Office of the Dean of Students–Walb Student Union
- Gates Sports Center
- Information Center–Kettler Hall lobby
- Information Desk–Walb Student Union lobby
- Each college and school dean's office

To be eligible to vote in Indiana, you must

- be a citizen of the United States.
- be at least 18 years old on the day of the next general or municipal election.
- have lived in your Indiana precinct for at least 30 days before the next election.
- not currently be in prison after being convicted of a crime.

47. Women and Returning Adults

Located in the Office of Diversity and Multicultural Affairs, (Walb 118, 260-481-6608)

Mission statement. The Office of Women and Returning Adults serves as an advocate for women and nontraditional students by providing academic, financial, and personal assistance, while simultaneously familiarizing them with the network of services available on campus and in the community.

Special ongoing efforts designed to meet the needs of these students includes

- Individual appointments
- Social and educational workshops—Students with Families series
- Scholarships for nontraditional students and women
- Newsletter
- Omicron-Psi Honor Society for adult students
- Campus and community resource information and referrals.

48. Writing Center

The Writing Center (Kettler G19, 260-481-5740) serves faculty, staff, and students with any university-related writing project in any discipline. The center's mission is to help all writers produce clear writing appropriate to their audiences. Knowledgeable consultants help writers brainstorm, focus, organize, and develop their ideas as well as learn how to better cite sources and revise and proofread their own drafts.

For free 25- or 50-minute, one-to-one or small group appointments, students should sign up through TutorTrac (www.ipfw.edu/casa/wc). Arrangements for other services are made with the coordinator at 260-481-6893. For example, students make arrangements for large group project assistance or presentations (five or more participants) and faculty and staff can make appointments to discuss their own or their students' writing. Students may also, without an appointment: (1) drop in for quick writing help, (2) use the open lab computers in Kettler G19 to write their papers, and (3) use the Writing Center's library of resources about writing.

For online consulting and further information, visit www.ipfw.edu/casa/wc.

Writing Center hours: Monday–Thursday, 10 a.m.–6 p.m.; Friday, 10 a.m.–2 p.m.; and Sunday, 1–5 p.m.

Part 8: Regulations, Policies, Rights, & Responsibilities

Click on a link to be taken to the entry below.

Academic Regulations
^ TOP

The following academic regulations were in effect for all undergraduate students at the time of printing. Changes go into effect periodically and are published in the *Schedule of Classes*. The academic regulations are arranged as follows:

1. Definitions
^ TOP

Certain terms have very specific meanings in these regulations. These terms are defined as follows:

Academic record. Each student's IPFW cumulative record is maintained by the registrar in accordance with these academic regulations. Your IPFW academic record is the sole basis upon which all questions relating to such matters as

grades, graduation requirements, academic standing, and scholastic recognition are resolved. Since official transcripts are produced using Indiana University and Purdue University procedures, your official transcript may, as noted in these regulations, vary somewhat from your IPFW academic record.

Credit. The semester hour is called the "credit hour" or "hour." Credit can be resident credit or transfer credit, as described below:

Resident credit. This is credit earned at IPFW or at another campus of the university through which you are enrolled at IPFW. There are two types of resident credit—course credit and special credit. Each is defined as follows:

Course credit. This is resident credit you earn on the basis of your enrollment in, and satisfactory completion of, courses.

Special credit. This is resident credit awarded by IPFW and based on factors other than your enrollment in and satisfactory completion of courses. There are three types of special credit:

Credit by examination. This credit is awarded on the basis of your achievement on a divisional or departmental proficiency examination.

Division/department credit. This is credit for a course offered by a division/department and granted on the basis of substantially equivalent experience. Only the director/chair of the division/department that offers the course is authorized to award this type of credit.

Achievement credit. This credit is granted on the basis of your achievement on a nationally administered, college-level examination.

Transfer (nonresident) credit. This is credit earned from another university (other than IPFW or another campus of the university through which you are enrolled at IPFW). Transfer credits are evaluated by Admissions and accepted as transfer credit if completed at a regionally accredited institution with a grade of C- or better. Designations of plus and minus that accompany these grades will be disregarded in the evaluation of this credit.

Credit accepted as transfer credit will be equated to IPFW course numbers (or classified as "undistributed" if not equivalent to IPFW courses), and posted to your academic record at the time you matriculate or re-enter IPFW. The academic-record entry includes the name of the transfer institution, the years you attended, and the individual courses accepted for transfer. Your IPFW college/school/division or department determines how credit earned at other institutions, and accepted by IPFW, applies to your plan of study. The dean/director or chair of your IPFW college/school/division or department may request an adjustment of transfer-course equivalencies.

Student classification. This is a system for classifying undergraduate students who have been regularly admitted to IPFW. Classification is determined by your advisor, and should reflect the credits you have accumulated or your progress toward completing the specific requirements of the degree program in which you are enrolled. When your classification is being determined for a future academic session, your advisor will also include courses and credits that you expect to complete by the time that session begins.

Classification Credits Completed Toward Degree

Freshman	Normally fewer than 30
Sophomore	Normally 30–59
Junior	Normally 60–89
Senior	Normally 90 or more

The registrar may establish additional classifications to serve IPFW's record-keeping needs. Thus, your official transcript may show somewhat different codes.

Beginning student. This is a student enrolling in college courses for the first time, or a student who has completed a small number of credits while in a temporary admission status, most often while still a high school student.

Advanced placement. This is the admission of students to courses beyond the first course or courses in an established sequence, but without granting credit for earlier courses in the sequence.

Substitution. This is the replacement of a course required in a program with another course specified by the college/school/division or department that established the requirement.

Excusing. This is the replacement of a course required in a program with an equal number of credits from other courses not specified as "required." Such an excuse requires approval of the school/division or department that established the course requirement.

Work not scheduled for a regular fall or spring semester. This is course work offered during a summer session or during a period of time that differs from a regular 16-week semester, and that is equivalent in content, contact hours, and credit value to course work offered during a regular semester. Because the length of the course differs from the regular semester, all deadlines and time periods will be prorated.

Intensive course. This is a course that meets for extended class times but for fewer weeks than the course would meet in a standard summer session.

Pass/not-pass option. This is an enrollment option that generally limits course grades to P (pass) and NP (not pass). You may use the option to take only elective courses with limited concern for the grade. You may not elect this option for more than 20 percent of the credits required for graduation or in courses for which you have already earned a grade. Under the P/NP option, Indiana University students who earn a grade of D or F have that grade recorded on their official transcripts. Purdue University students who earn a grade of D or F have a grade of NP recorded on their official transcripts.

Auditor. This is a student who enrolls in a course, attends class, and pays full fees, but does not receive a grade or credit for the course.

Cheating. This is dishonesty of any kind with respect to examinations, course assignments, or alteration of records.

Plagiarism. This is a form of cheating in which the work of someone else is offered as one's own. The language or ideas thus taken from another may range from isolated formula, sentences, or paragraphs, to entire articles copied from printed sources, speeches, software, or the work of other students.

Grade-point average (GPA). This is a numerical calculation or report of grade averages. IPFW, Indiana University, and Purdue University GPAs are based on a four-point system with grades of A equated to 4.00 points, grades of F equated to 0.0 points, and other grades scaled accordingly (see *11. Grades*).

NOTE: Prior to June 1993, Purdue University transcripts and related Purdue University records were computed on a six-point scale (A = 6.00) rather than the four-point scale (A = 4.00) used by IU and IPFW. Since June 1993, all IU, Purdue, and IPFW GPAs are computed using the same four-point scale (A = 4.00).

2. English Language Proficiency

The language of instruction at IPFW is English. Therefore, your ability to read, write, speak, and understand English is vital to your academic success.

Prior to admission, the Admissions office shall determine which prospective undergraduate students have a native language other than English. All students whose native language is not English must submit proof of English proficiency. The most common way of demonstrating English proficiency is through test scores on standardized exams, such as TOEFL, IELTS, and the Michigan Test. Other standardized and national exams may be considered as proof of

English proficiency; the English Department, in consultation with the Admissions office and International Student Services, will determine the admissibility of these exams on a case-by-case basis.

All such students who do not have transfer credit for an English composition course that carries credit toward gradutaion shall be identified as ESL students and shall be required to submit scores on the TOEFL or an equivalent test approved by the department of English and Linguistics.

ESL students shall be admitted with the condition that they achieve appropriate competency levels in English composition.

Based upon English proficency standardized exams' scores, the Department of English and Linguistics shall determine which ESL students need ESL instruction. Students who are found to be exempt from ESL course requirements shall be subject to the regular English placement-testing and course-completion requirements descried in these regulations. Other ESL students shall:

> Be admitted only to the Mastodon Advising Center unless they score the equivalent of 550 or above on the TOEFL-Paper, 79 or above on the TOEFL-Internet, 6.5 or above on the IELTS, or 80 and above on the Michigan Test and meet the admission requirements of a degree-granting academic unit. Students admitted in this fashion to the Mastodon Advising Center shall not be eligible for admission to another academic unit until they have completed ESL-related requirements.
> Enroll in the appropriate ESL course each semester until the requirement is satisfied.
> Complete the prescribed series of ESL courses within their first 36 credits at IPFW.

The Mastodon Advising Center shall have authority to alter any student's registration if these requirements are not being met.

3. Advanced Credit

You can establish advanced credit in any of five ways:

College Board advanced-placement program. You can establish college credit based on an exam taken after completion of a high school advanced-placement course. The test score necessary to support an award of credit varies depending on the test subject. Specific information is available from IPFW Admissions or at www.ipfw.edu/admissions/credits/ap.shtm.

International Baccalaureate Program. For participants in the IB Program, an award of 3–8 credits will be made for each high-level examination passed with a score of 4 or above. IPFW Admissions will award undistributed credit in the appropriate disciplines until specific credit equivalencies are established by IPFW departments. No credit will be awarded for performance on subsidiary-level exams.

College-Level Examination Program (CLEP). This program evaluates nontraditional college-level education.

A guide to CLEP credit available at IPFW can be obtained from Admissions or at www.ipfw.edu/admissions/credits/ap.shtm. No credit is awarded for general examination performance.

Education while in U.S. military service. If you are a Purdue University or Indiana University student who (1) took foreign-language courses in service schools; (2) took courses from the Community College of the Air Force; or (3) is an Indiana University student who (a) completed courses that appear in the Evaluation of Educational Experience in the Armed Forces. You may be eligible for credit. Twelve credits are granted for completion of Officers Candidate School. Each college/school/division determines whether credit for military service is applicable to the degrees it sponsors.

Directed credit/credit by examination. For information about "testing out" of courses, see *5. Special Credit, Credit for Military Service,* and *Excess Undergraduate Credit.*

Modern foreign languages placement tests. If you begin foreign-language study in a second semester or higher course in French, German, or Spanish, you may be eligible for special credit for the courses below your placement level. You must apply for this credit through the Department of International Language and Culture Studies (LA 267, 481-6836); it is not granted automatically.

4. Transfer Credit

For general limits on credit transfer, see *14. Degrees*.

To transfer credits to IPFW, you must request that every college or university you have attended send an official transcript of your work to Admissions. IPFW accepts credits only from academic programs at institutions accredited by regional accrediting associations and only for courses in which you earned grades of C- or better. Courses from institutions not holding regional accreditation may be reviewed by the academic department in which the course is taught. Specific IPFW degree programs may impose additional criteria. Grades do not transfer.

Changing between IPFW programs. To change from one IPFW academic program to another, you must complete the appropriate forms and secure the approval of the IPFW college/school/division offering the program to which you want to change. If the change affects your university affiliation (IU or Purdue), the registrar will notify Admissions, which will transfer all of your previously earned IPFW credits to the records system of your new university.

If you are a re-entering student who has not enrolled at IPFW during the previous 12 months, or if you are returning to IPFW after having attended another institution, you must specify your intended academic program on the appropriate re-entry or transfer-admission form. You must then submit this completed form to Admissions for evaluation.

Credit transfer between IPFW programs. When you change from one IPFW degree or certificate program to another, the college/school/division to which you are transferring will report to the registrar the status of every course you have taken. Each course you have completed, regardless of the grade you earned, will be classified into one of the following two categories:

- courses that are required for, or applicable to, your new program or which are substantially equivalent to, and are acceptable as, substitutes for such required courses.
- courses that are not applicable to your new program.

Grades you have earned in any courses that can satisfy a degree requirement, other than a "free elective," may not be deleted from the calculation of your graduation GPA.

5. Special Credit, Credit for Military Service, and Excess Undergraduate Credit

Credit by division/department examination. Opportunities for earning undergraduate credit by division/department examination are encouraged in order to expedite the education of qualified students. Toward this end, each academic division/department establishes procedures to consider candidates and to administer and grade such examinations. Each division/department also keeps a list of the principal courses available for credit by examination and test schedules if known.

You may request an examination for credit for a course if the course is available for credit by examination and if no grade in the course other than a grade of W or NC has been awarded. The examination will be at least as comprehensive as those given in the course, and will be graded satisfactory (performance comparable to that expected of a student who receives an A, B, or C in the course), or unsatisfactory. The registrar will record results of satisfactory performance on your academic record; no academic record entry will be made for unsatisfactory performance.

Achievement credit. Credit or transfer credit for nationally administered examinations (except the International Baccalaureate Program) will be awarded only after approval by the IPFW division/department that offers courses in the subject area.

Credit for military service. Each college/school/division determines whether credit for participation in military service may be applied toward a degree.

Excess undergraduate credit. A senior with a GPA of 3.00 or better may, with written permission from both an authorized graduate advisor and the instructor(s) involved, enroll in up to 9 credits in excess of the requirements for graduation, in courses intended for use in a graduate program. Permission, if given, will be noted on forms supplied by the registrar, who shall make a transcript notation of the special status of these credits. Instructors will impose graduate-level standards in these courses.

6. Placement Tests

Placement procedures. Students should complete the following procedures as soon as possible after admission to IPFW. Students completing these procedures shall be notified of the test results and their implications in a timely fashion.

English. A regularly admitted beginning student is allowed to register for classes only after completing the appropriate placement procedure. Any other student is allowed to register for classes beyond the session in which the first 12 credits are completed at IPFW only if the student has (1) completed the appropriate procedures; or (2) established credit in an entry-level English course.

Mathematics. A regularly admitted beginning student is allowed to register for classes only after completing the appropriate placement procedure. Any other student is allowed to register for classes beyond the session in which the first 12 credits are completed at IPFW only if the student has (1) completed the appropriate procedures; or (2) established credit in an entry-level math course.

Students who place in developmental math must complete the appropriate developmental course(s) in their first 24 credits of IPFW course work, with the exception of developmental math for those students enrolled in a certificate or associate degree program that does not require math.

Reading. A regular admitted beginning student is allowed to register for classes only after submitting one of the following:

    SAT test score above 450 on the verbal test
    ACT test above 19 on the individual reading test
    Scoring above the lowest 15 percentile (determined by national norms) on the IPFW placement test

Students who do not meet at least one of these requirements will be required to complete a reading course as specified by the Department of English and Linguistics and approved by the College of Arts and Sciences during one of the student's first two enrollment periods.

Foreign language. If you studied French, German, or Spanish for two or more years in high school and wish to continue to study that language, you must enroll in the appropriate 113 course, unless you graduated from high school five years or more prior to enrolling at IPFW. The 113 course is equivalent to the second semester of the first year, but incorporates a review of what is studied in French, German, or Spanish 111. No placement test is required for enrollment in 113. Students who graduated from high school five years or more prior to enrolling at IPFW may start their foreign language over by enrolling in 111, or they may take a placement test to determine whether they might be successful in 113.

If you completed three or more years of high school French, German, or Spanish, you are urged to take the foreign-language placement test in order to determine whether you can place higher than 113. Call 260-481-6600 to schedule a free foreign language test.

If you studied French, German, or Spanish at a college or university and have transfer credits, please contact the Department of International Language and Cultural Studies (LA 267, 260-481-6836) before enrolling in additional classes in that language.

English as a second language. If you have been designated as an ESL student, see *2. English Language Proficiency*.

7. Registration and Course Assignment

Registration procedures. You must register for courses in accordance with procedures and guidelines prescribed by the registrar.

Your initial registration for each term must occur according to the timetables for registration established for each semester/session and published in the *Schedule of Classes*. In most cases, you will register for classes at your college/school/division or department office, the registrar's office, or via the Web registration system.

Academic load. The following maximums apply to your enrollment at IPFW:

Limit with special permission. Your academic load may not exceed 18 credits in a regular semester or 8 credits in a summer session unless unusual circumstances exist and you have been granted special permission by your academic advisor.

Absolute maximum in any academic session or intensive course. You will not be allowed to register for a class, or combination of classes, that generates more than 1.5 credits per week. You will not be allowed to register for more than one intensive course at a time. Courses for which you register as an auditor are included in the calculation of your academic load.

Enrollment status. For most purposes, undergraduate students are considered to be full-time students when enrolled in 12 or more credits during a semester and part-time students when enrolled in 11 or fewer credits during a semester.

Course prerequisites and corequisites. Before you begin a course, you must have satisfied all prerequisites and corequisites or secured the instructor's or sponsoring division/department permission. At the request of the instructor or the division/department through which a course is offered, the registrar may withdraw you from a course for which you have not satisfied all prerequisites and corequisites.

Auditing. You may enroll as an auditor by noting "auditor" (A) in the appropriate space on your registration form, and by completing the normal registration procedures established by your division/department. Regular course fees will be assessed. You may not enroll as an auditor if you have been dismissed from IPFW.

You will be assigned a grade of W or NC and will not receive academic credit for a course in which you enrolled as an auditor. However, under the rules of a division/department examination, you may later be allowed to earn credit for a course you have audited.

Schedule revisions and late registration. After your initial registration, you may revise your schedule in accordance with the policies listed below. In all cases, you must submit the completed schedule-revision (drop/add) form with appropriate signatures to your division/department or the registrar's office. All schedules and deadlines are prorated for courses not meeting for an entire 16-week semester. An academic advisor's approval may be required to process a course addition or withdrawal at the registrar's office.

Addition of a course. You may add a course after your initial registration by submitting a completed schedule-revision (drop/add) form (with the appropriate signatures) to your division/ department, to the registrar's office, or via the Web registration system.

Weeks   Restrictions

Through Week 1 of classes	College/school/division policies determine whether an academic advisor's approval is required.
Weeks 2–4	Approval of the instructor is required. College/school/division policy determine whether an academic advisor's approval is required.
Weeks 5–9	Approval of the instructor and of your dean or division director is required. College/school/division policy determine whether an academic advisor's approval is required. Approval will normally be given only when extenuating circumstances are involved.
Weeks 10–16	Courses may not normally be added during this time.

Withdrawal from a course. Subject to the time limits below—and in the absence of any allegation that you are guilty of academic dishonesty in the course—you may officially withdraw from a course by presenting a schedule-revision (drop/add) form with appropriate signatures to your division/department, to the registrar's office, or via the Web registration system.

Weeks	*Restrictions*
Through Week 4 of classes	College/school/division policy determines whether an academic advisor's approval is required. The course is not recorded on your record.
Weeks 5–9	College/school/division policy determine whether an academic advisor's approval is required. The course is recorded with a grade of W on the student record.
Weeks 10–16	Courses may not normally be dropped during this period. If a drop is approved, the course is recorded with a grade of W on the student record.

During Weeks 10–16, a course may be dropped and a grade of W assigned if you receive approval of your academic advisor and your dean/division director, after the latter has consulted with the instructor. Such drops will not be approved if sought because of your poor performance in the course.

After the end of the Week 16, a course may be dropped only by following the change-of-grade procedure.

Change of pass/not-pass (P/NP) option. Prior to the end of the fourth week of an academic semester (or equivalent period during a summer session), you may add or remove the P/NP option for a course by obtaining the signature of an academic advisor next to the appropriate notation on the schedule-revision (drop/add) form, and by processing the form in the prescribed manner.

Change of auditing option. Prior to the end of the fourth week of an academic semester (or equivalent period during a summer session), you may change from audit to credit status by obtaining the signature of an academic advisor next to the appropriate notation on the schedule-revision (drop/add) form, and by processing the form in the prescribed manner. Prior to the end of the ninth week of an academic semester (or equivalent period during a summer session), you may change from credit to audit status in the manner specified above.

NOTE: All deadlines and time periods will be prorated for courses offered during a period of time that differs from a regular 16-week semester.

Withdrawal from the university. Withdrawal from the university is accomplished by withdrawing from each course in which you are enrolled.

Withdrawal for military service. Any student called to active military duty may present a copy of their military service orders and (1) withdraw from all courses and receive a 100 percent refund of tuition and fees at any time during

the semester through the end of final examinations or (2) with the permission of each instructor, receive an Incomplete or final grade in the courses taken. Such requests and documentation may be presented by the student or other responsible party who has the student's permission to make the request. Refunds of fees will not be made if the student receives a grade and credit for the course, and all refunds will be adjusted as required by financial aid regulations. If a withdrawal is processed after the fourth week of classes, the grade of W will be assigned.

Withdrawal for personal circumstances. Students who seek to withdraw from IPFW after the ninth week of classes based on personal circumstances should contact the dean of students for guidance about the process.

8. Attendance

You may not attend a class (1) before completing official registration procedures, (2) after officially withdrawing from the class, or (3) after your registration has been canceled.

You are expected to attend every meeting of the classes in which you are registered. Work missed during absences may be made up if permitted by the instructor. At the beginning of the academic session, each instructor will provide a clear statement to all students regarding his or her policy for handling absences.

If you must report your class attendance in order to satisfy requirements of financial aid sponsors, you must present the sponsor's certification form to each of your instructors. Each instructor will certify your attendance by completing the form. Unless you have made a prior agreement with your instructor, he or she will not be obligated to certify your attendance for more than the most recent class.

Discontinuing class attendance and not fulfilling course requirements is regarded as an unauthorized withdrawal and will result in your receiving a grade of F.

9. Academic Honesty

Policy. Academic honesty is expected of all students. You are responsible for knowing how to maintain academic honesty and for abstaining from cheating, the appearance of cheating, and permitting or assisting in another's cheating.

Your instructor is responsible for fostering the intellectual honesty as well as the intellectual development of students, and for applying methods of teaching, examination, and assignments that discourage student dishonesty. If necessary, your instructor will explain clearly any specialized meanings of cheating and plagiarism as they apply to a specific course.

Your instructor will thoroughly investigate signs of academic dishonesty, take appropriate actions, and report such activity properly to prevent repeated offenses and to ensure equity.

Procedures. An instructor who has evidence of cheating will initiate a process to determine guilt or innocence and the penalty, if any, to be imposed.

During an informal conference within 10 class days of discovering the alleged cheating, your instructor will inform you of charges and evidence and allow you to present a defense. Your instructor will make an initial determination after this conference. You may be assigned a grade of Incomplete (I) if the matter cannot be fully resolved before course grades are due in the registrar's office.

Reporting. During the period in which you are permitted to drop courses, the instructor will inform the registrar promptly of any allegation of cheating, so that you cannot withdraw from the course. The instructor who makes an initial finding that academic dishonesty has been practiced will impose an academic sanction. Then, within 10 class days, the instructor will supply a written report to you, the chair of your department, the dean or director of your college/school or division, and the dean of students. The report will summarize the evidence and penalties assessed.

Appeal. If your course grade is affected by the penalty, you have the right to appeal the penalty imposed by an instructor in accordance with the grade-appeals policy (see *18. Grade Appeals*).

10. Final Examinations

Next-to-last week. No instructor may schedule an examination—comprehensive or noncomprehensive—except for laboratory and practicum courses, during the week preceding the last week of a fall or spring semester.

Final week. With the exception of courses classified as individual instruction, clinic, studio, practice teaching, or research and those offered for 0 credits, each class is expected to meet for a two-hour session during the last week of each fall or spring semester. The two-hour session is to be used for (1) a final examination; (2) a last, noncomprehensive examination; (3) submission of an out-of-class examination or assignments; or (4) a regular class meeting.

Conflicts. If you (1) are scheduled to take more than two final examinations in one day, (2) have conflicting final examinations, or (3) are scheduled to take a state, national, or professional licensing examination, you may contact the instructors involved prior to the last week of a fall or spring semester to obtain appropriate rescheduling. If you and the instructors cannot agree upon a rescheduling, the vice chancellor for academic affairs shall investigate and issue a binding schedule.

Absences. If you miss a final examination because of an emergency, you must contact the instructor as soon as possible. If you miss a final examination, you may receive a grade of F for the course.

11. Grades

Basis of grades. Your instructor is responsible for explaining to you, preferably in writing at the beginning of an academic session, the course requirements and grading system to be used. You will be assigned a grade in each course at the close of the session. You are responsible for the completion of all required work in each course by the time of the last scheduled class meeting or other deadline set by the instructor, unless you have officially withdrawn from the course, or unless you and the instructor have agreed that a grade of Incomplete (I) is warranted. Note: Plus/Minus grades may be assigned beginning fall 2008.

Semester Grades. The following grades may be assigned:

Grade		Grade Points
A+, A	Highest passing grade	4.0 x Semester Hours
A-		3.7 x Semester Hours
B+		3.3 x Semester Hours
B	Above-average passing grade	3.0 x Semester Hours
B-		2.7 x Semester Hours
C+		2.3 x Semester Hours
C	Average passing grade	2.0 x Semester Hours

C-		1.7 x Semester Hours
D+		1.3 x Semester Hours
D	Lowest passing grade	1.0 x Semester Hours
D-		0.7 x Semester Hours

F   Failure or unauthorized discontinuance of class attendance; no credit.

I   Incomplete. A temporary record of passing work that (1) was interrupted by circumstances beyond the student's control, or (2) represents satisfactory work-in-progress in an independent-study or self-paced course.

IF   Unremoved incomplete, Failing. Recorded for failure to achieve a permanent grade by the deadline stated in these regulations. Indiana University students who receive this grade will have a grade of F recorded on official transcripts.

NC   Completion of the course as an auditor; carries no credit.

NP   Not passing grade when enrolled under the P/NP enrollment option. Purdue University students who receive this grade will have a grade of N recorded on official transcripts.

P   Passing grade. Under the P/NP option, equivalent to a grade of A+, A, A-, B+, B, B-, C+, C or C-.

S   Satisfactory, credit. Awarded by the registrar upon satisfactory performance in a course offered only on an S/F basis, or on a departmental/divisional examination, or another award of special credit, or completion of a 0-credit course. Purdue University students who receive this grade will have a grade of P recorded on official transcripts whenever the course involves one or more credits.

W   Withdrew. A record of the fact that the student officially withdrew from (dropped) a course or was administratively withdrawn from a course for nonpayment of fees after the end of the fourth week.

Pass/not-pass (P/NP) option. The P/NP grade option provides a limited opportunity for you to take "free electives" with minimal concern for the grades you earn. You must fulfill the same requirements as others enrolled in courses for which you elect this alternative. Instructors are not advised that you have registered for their courses under this option.

Your use of this option is subject to the three general limitations listed below. However, your college/school/division or department may impose additional restrictions.

> You may not elect this option for courses that fulfill specific graduation requirements other than total number of credits (i.e., only for "free-elective" courses).
> You may not elect this option for more than 20 percent of the credits required for graduation.
> You may not elect this option for any course in which you have already earned a grade of A, B, C, D, or F.

If you earn a grade of A, B, or C under this option, it will be changed to a grade of P by the registrar and posted to your transcript. However, if you are enrolled at IPFW as an Indiana University student, grades of D or F that you earn under this option will be posted to your transcript without change. If you are enrolled at IPFW as a Purdue University student, grades of D or F that you earn under this option will be changed by the registrar to a grade of NP and will be posted to your official transcript as a grade of N. Grades of P and NP (or N) are not used in the computation of your GPA.

Incomplete. A grade of I may be granted to students (1) who are unable to complete specific course requirements for clearly unavoidable, nonacademic reasons (such as extended illness or relocation) and (2) whose work has been of

passing quality up to that time. A grade of I will not be considered as an alternative to an anticipated low grade in a course. Certain IPFW colleges/schools/divisions or departments impose additional limitations on the use of I grades.

An instructor who reports a grade of I must provide the registrar's office with a form specifying (1) the reason for the incomplete, (2) the requirements for completing the course, (3) the grade earned for the course to date, and (4) the specific time limit, not to exceed one calendar year, allowed for completing the course.

An instructor may change the incomplete to a regular letter grade if requirements for completion of the course are not met within the time specified. Given extenuating circumstances, the initial time limit may be extended for a period not to exceed one additional calendar year if approved by the instructor and the instructor's dean/division director, and if the registrar's office is notified before the expiration of the original time limit.

The registrar's office changes the I to a grade of IF unless you graduate or remove the incomplete within the time allowed. If you are enrolled at IPFW as an Indiana University student and receive an IF grade, a grade of F is recorded on your official transcript. If you re-enroll in the same course while the I is still on your record, and the course is not repeatable for credit, the original grade of I remains on your official transcript.

If you transfer resident credit for a course in which you received an incomplete, you will have the grade of I recorded on your academic record for up to one calendar year from the date of admission to IPFW. At the end of this period, if you have not graduated or provided evidence that the incomplete has been replaced with a permanent grade, the registrar's office will change the incomplete to IF.

Final grade report. Your complete record for the session and your cumulative GPA are reported to you, your major department, and your college/school/division.

Changes of grade. An instructor who discovers within 30 days of the grade-processing deadline that a grade reported for you was in error, he or she must promptly submit to the registrar a statement, countersigned by the instructor's department chair or division director, of the circumstances of the error and of the change to be incorporated in future GPAs. Correction of errors after this time requires the additional approval of the instructor's dean/director.

The registrar will inform you, the department chair/division director, and the dean of the change of grade.

You may seek a change of grade through the grade-appeals procedure (see *18. Grade Appeals*).

You may retake any course. Unless the course is described in this *Bulletin* or its supplement as repeatable for credit, credit will be given only once for a repeated course, and only the most recent grade earned will be incorporated into graduation GPA calculations.

12. Grade-Point Averages

A grade-point average (GPA) is a weighted average of all credits for which a GPA-related grade (A, B, C, D, F, IF) has been assigned. The three GPAs used at IPFW are defined and computed (and rounded to two decimal places) as follows: Semester GPA is computed using only those credits for which you are assigned a GPA-related grade for the specified semester.

Cumulative GPA is computed using all credits for which you are assigned a GPA-related grade, with the exception of credits earned in those courses that have been repeated and are not repeatable for credit. All credits earned at IPFW or at another campus of IU or Purdue for which a grade of A, B, C, D, F, or IF was assigned are applicable.

Graduation GPA is computed using credits for which you are assigned a GPA-related grade in only those courses that fulfill a graduation requirement, with the exception of credits earned in those courses that have been repeated and are not repeatable for credit. If you are pursuing more than one degree program, your graduation GPA will be determined by the academic unit through which you register.

All applicable credits earned at IPFW or at another campus of IU or Purdue for which a GPA-related grade was assigned are included if they were received for courses that fulfill a graduation requirement.

Note: Prior to June 1993, Purdue University transcripts and related Purdue records were computed on a six-point scale, (A = 6.00) rather than the four-point scale (A = 4.00) used by IU and IPFW. Since June 1993, all IU, Purdue, and IPFW GPAs are computed using the same scale (A = 4.00).

13. Academic Standing

Good standing. For purposes of reports and communication to other institutions, and in the absence of any further qualifications of the term, you are considered in "good standing" unless you have been dismissed, suspended, or dropped from IPFW and not readmitted.

Academic recognition. At the conclusion of each fall or spring semester (but not any summer session), the registrar indicates which students are eligible for the following academic recognitions:

Semester Honors List for (1) having at least 6 credits included in the semester GPA, (2) achieving at least a 3.50 semester GPA, and (3) achieving at least a 2.00 graduation GPA.

Dean's List for (1) having at least 12 credits included in the graduation GPA, (2) having at least 6 credits included in the semester GPA, (3) achieving at least a 3.50 graduation GPA, and (4) achieving at least a 3.00 semester GPA.

If you have earned academic recognition for either of the two previous semesters, your achievements will be recognized at the annual Honors Convocation and appropriately noted on your academic records.

Recognition of completion in the Honors Program. If you are certified by the Honors Program Council as having completed the requirements of the Honors Program, an appropriate academic record notation is made.

Academic probation, dismissal, and readmission. The following probation, dismissal, and readmission criteria are minimums for IPFW; academic units may set higher standards that become effective upon publication in the *Bulletin* or its supplement. If you are dismissed from a program for failure to meet the higher standards imposed by an academic unit, you must be accepted into another program before registering for a subsequent academic session.

Probation. You are placed on probation and are so notified by the university whenever your semester or cumulative GPA at the end of any regular semester is less than the minimum standards specified in the following table:

GPA Levels for Probation

Class Standing	Semester GPA	Cumulative GPA
Freshman	1.50	1.50
Sophomore	1.60	1.70
Junior	1.70	1.90
Senior	1.70	2.00

An appropriate notation will be made on your academic record. Any grade change will require recalculation of your probation status. You are removed from probation upon achieving the minimum semester and cumulative GPA in the above table.

Dismissal. If you are on probation, you will be notified of dismissal by the university if, at the end of any regular semester, you (1) earn failing grades in 6 or more credits for that semester, or (2) do not meet the minimum cumulative GPA requirements in the following table:

GPA Levels for Dismissal

Class Standing	Cumulative GPA
Freshman	1.30
Sophomore	1.50
Junior	1.70
Senior	1.90

An appropriate notation will be made on your academic record. Any grade change will require recalculation of your dismissal status.

Readmission. If you have been dismissed from IPFW or any other campus of Indiana University or Purdue University, you may not enroll at IPFW until one fall or spring semester has passed. Thereafter, you may be readmitted according to the procedures specified by the IPFW college/school/division into which you are seeking readmission.

If you have been dismissed from IPFW with fewer than 12 credit hours attempted in courses with GPA-related grades since your admission or readmission, you may be eligible for immediate readmission to the division/department from which you were dismissed and be exempted from the procedures and fees normally associated with readmission.

All readmissions are into probationary status. An appropriate notation will be made on your academic record.

14. Degrees

Colleges/schools/divisions may impose stricter requirements than those listed in this section, but they may not waive the following minimum standards. Provided these minimum standards are satisfied, adjustments to any degree requirement may be made by the unit establishing that requirement.

Degrees offered. For completion of undergraduate plans of study of at least 60 credits, associate degrees may be conferred. For completion of undergraduate plans of study of at least 120 credits, bachelor's degrees may be conferred.

Requirements for degrees. If you enter a degree, certificate, or premajor program, you will be required to fulfill the requirements published in the Bulletin (or its supplement or departmental regulation) current at the time of your most recent entry or re-entry into that program at IPFW. Only with the written acknowledgment of an academic advisor can you elect to fulfill the requirements in any subsequent *Bulletin* or supplement.

Any new requirement for a degree, certificate, or premajor program may not be imposed on currently enrolled students in these programs if it would increase the number of credits or the number of semesters required for completion of the program.

The college/school/division/department committee in charge of curriculum matters may refuse to accept as credit toward graduation any course that was completed 10 or more years previously. Former students will be notified of all such decisions upon re-entering or when the credit is determined to be unacceptable.

To earn any associate or bachelor's degree at IPFW, you must satisfy the following four requirements:

You must complete, by resident credit or transfer credit, the plan of study underlying the degree, including
For an associate degree, registration in and completion of at least 32 credits of resident course credit, including at least 15 credits in courses applicable to the major.
For a bachelor's degree, registration in and completion of at least 32 credits of resident course credit at the 200-level or above, including at least 15 credits at the 300-level or above in courses applicable to the major.

Normally, you must complete the entire final year at IPFW. However, with the approval of your college/school/division and if you have satisfied the resident credit requirement, you may complete the remaining requirements in another approved college or university.

You must establish a graduation GPA of 2.00 or better.

You must register, either in residence or absentia, as a candidate for the desired degree during the academic session immediately preceding its conferral.

Double majors and double degrees. The academic unit sponsoring your programs shall certify your completion of each degree and any second major that you may have completed.

Double major. If you complete all the requirements for more than one program, you will be awarded a degree with a double major if (1) the requirements are completed at the same time; (2) the programs are offered by the same college/school/division and the same university at IPFW; and (3) the programs lead to the same degree, where "the same degree" means a B.A. (IU or Purdue), B.F.A., B.S. (Purdue only), or a B.S.C., etc.

Double degree. If you complete all requirements for more than one program, you will be awarded two degrees if the above requirements for a double major are not satisfied, except that Purdue University students who complete requirements for a second major leading to the same degree as originally earned shall have this major noted on their transcripts but shall not receive a second degree.

Graduation with distinction. To be a candidate for the bachelor's degree with distinction, you must have a minimum of 65 resident credits included in the computation of your graduation GPA. To be a candidate for an associate degree with distinction, you must have a minimum of 35 resident credits included in the computation of your graduation GPA. The required GPA, calculated each spring as outlined below, also applies to degrees for the following summer sessions and fall semester.

In each college/school/division, the minimum graduation GPA for graduation with highest distinction from a bachelor's degree program shall be at least 3.80 (A = 4.00), but never less than the 97th percentile of the graduation GPA of the college/school/division's graduates.

In each college/school/division, the minimum graduation GPA for graduation with distinction from a bachelor's degree program shall be at least 3.50 (A = 4.00), but never less than the 90th percentile of the graduation GPA of the college/school/division's graduates.

Also in each college/school/division, the requirements for graduation with highest distinction or with distinction from an associate degree program shall also be separately calculated as outlined above for bachelor's degree programs.

Conferring of degrees. Degrees may be granted at the close of each academic session.

15. Minors

You may earn a minor by providing your division/department verification of your acceptance into the minor program, a statement of the minor program requirements, and by successfully completing those requirements. You may choose any set of minor program requirements in effect since your most recent admission or re-entry into IPFW. Completion of any minor requires a minimum of 12 credits, including at least 6 resident credits at the 200 level or above. Your division/department will certify your completion of the minor requirements as your degree certification is being processed.

Concurrent with the completion of your degree requirements, the registrar will make an appropriate entry on your transcript to denote completion of the minor. No entry will be made on your transcript if the minor is not completed by the time you are certified for graduation.

16.Transcripts

If your record is not encumbered for any reasons described herein, you will (upon application to the registrar and payment of any prescribed fee) be entitled to receive an official transcript of your complete record, including any major(s) and minor(s).

Note: The registrar's office is the only university office authorized to issue official transcripts. All requests for these documents must be directed to that office.

17. Encumbrances

If you are in arrears to IPFW, you are not eligible to receive transcripts or diplomas. The clearance of all financial obligations by the Friday before Commencement will be essential for graduation. If you clear the obligation later, the diploma will be released.

18. Grade Appeals

The grade appeals policy applies to all students enrolled at IPFW. It can be used by any student who has evidence or believes that evidence exists to show that a course grade was assigned or a similar evaluation was made as a result of prejudice, caprice, or other improper condition such as mechanical error.

In appealing, the student must support in writing the allegation that an improper decision has been made and must specify the remedy sought. The student should seek the assistance of the dean of students in pursuing the appeal. During an appeal, the burden of proof is on the student, except in the case of alleged academic dishonesty, where the instructor must support the allegation. The student may have an advisor or friend present during all meetings with faculty members, administrators, and/or committees; he or she may advise the student but may not speak for the student during the meetings.

Grades may be changed only by a university authority upon the decision of the grade appeals subcommittee or by the instructor any time prior to the decision of the grade appeals subcommittee.

Appeal deadlines. An appeal must be initiated no later than the fourth week of the fall or spring semester immediately following the session in which the grade was assigned. A final decision at each step must be reported within 30 calendar days of the filing of an appeal at that step, provided that this deadline falls within the regular academic year (fall or spring semester). If the deadline falls during the summer, the decision must be reported within 30 calendar days of the start of the fall semester. Each successive step in the appeals procedure must be initiated within three calendar weeks of the completion of the prior step.

Steps in the Process of a Grade Appeal

Step 1. *Course instructor*: The student makes an appointment with his or her instructor to discuss the matter. If the instructor is unavailable, the department or program chair shall authorize an extension of time or allow the student to proceed to Step 2. If the chair is unavailable, the dean of the college or school shall authorize the extension.

Step 2. *College/school/department/program*: If the matter has not been resolved at Step 1, the student makes an appointment with the chair of the department or program offering the course, who may make an informal attempt to resolve the appeal. If the appeal is not resolved informally, the chair will direct the student procedurally in making an appeal to the college, school, department, or program committee. Only one committee shall hear the appeal in Step 2. The student filing an appeal shall have the opportunity to be heard in person by the committee.

Step 3. *Grade appeals subcommittee*: If the matter has not been resolved at Step 2, the student makes an appointment with the dean of students, who will direct the student procedurally in submitting the case to the grade appeals subcommittee.

College/school/department/program appeals procedure. Each college, school, department or program will establish appeals procedures that provide for a committee of three or more faculty members responsible for hearing grade appeals related to courses listed or administered by that college/school/department/program if those appeals have not been satisfactorily resolved between the student and the instructor or informally by the department chair. The procedures established by each college, school, department or program shall provide for each case to be heard by only one such committee. The procedure shall provide the opportunity for the student to be heard in person and for the decision to be reported in writing to the student and the instructor. A copy of each unit's procedures will be given to the vice chancellor for academic affairs, to the dean of students, and to students, upon request.

Grade appeals subcommittee. This subcommittee shall consist of nine members elected from among the Voting Faculty according to procedures specified in the Bylaws of the Senate.

Before hearing the details of a case, the subcommittee will decide by majority vote whether to consider the appeal and will report its decision in writing within 30 calendar days. The bases for a decision to consider an appeal may include (but not be limited to) a finding that (1) improper procedures have been followed by university employees at earlier steps of the appeal; (2) new information is present; or (3) the instructor has declined to accept the college, school, department, or program committee's recommendation.

No member of the subcommittee may take part in an appeal involving a course or instructor from the member's department or program. Members should also recuse themselves from cases in which they have potential conflicts of interest, personal involvement, schedules that will interfere with hearing the appeal in a timely manner, or other disqualifying causes. From those members remaining, the chair will elect the five-person hearing panel. The panel members will elect a chair who will be responsible for making arrangements related to the case.

If the case is to be heard, the hearing will take place within 30 days of the decision to hear the appeal, or within 30 days of the start of the fall semester, whichever is applicable. Each member of the panel will vote on whether the appeal is valid, and if so, on what remedy should be provided. If the panel, by majority vote, finds in favor of changing a grade, the chair shall report this finding to the registrar and to the parties listed below. The decision of the panel is binding on all parties and may not be appealed.

Reporting of subcommittee and panel decisions. The subcommittee and each panel shall report its finding and actions to the student; the college, school, department, or program from which the appeal came; the instructor; the chair of the student's department; the dean or director of the student's school or division; the dean of students; and (in the case of a panel decision) the chair of the grade appeals subcommittee.

IPFW Policies

The following IPFW policies were in effect for all undergraduate students at the time of printing. Changes go into effect periodically and are published in the *Schedule of Classes*. The policies are arranged as follows:

1. Admission

You must be admitted to IPFW before you are eligible to register for classes. Admission applications may be obtained from the Admissions office (Kettler 111, 260-481-6812 or 800-324-IPFW) or online at www.ipfw.edu/admissions. After submitting all necessary information, you may be admitted to Indiana University or to Purdue University based upon the degree program you have selected. IPFW admissions counselors are available to help with your selection. Please call the Admissions office for a personal appointment.

University requirements for admission are established by the trustees. Program-specific admission requirements, in addition to those established by the trustees, may be imposed by schools/divisions and departments. Any such requirements become effective when published in the *Bulletin* or appropriate supplementary publications. Applicants should be aware that certain criminal convictions may result in ineligibility for admission to certain programs of study.

Basic skills. As an applicant for regular admission to IPFW, you should already possess the following basic-level skills in reading, writing, and mathematics:

Reading. You should be able to identify the main and supporting ideas in moderately complex texts, identify the authors' purposes, and evaluate the logic, accuracy, and value of their writing. You should be able to recognize implications, inferences, and assumptions and to integrate information from your experience or reading with new information.

Writing. You should be able to write short (500–700 words) argumentative and expository essays and should have some familiarity with research and documentation. Your essays should be clearly organized and demonstrate an ability to develop a thesis through argumentation and evidence. You should display no major errors in spelling, syntax, punctuation, and usage.

Mathematics. You should be able to demonstrate arithmetic numeracy and mastery of the content of a substantial first-year high school algebra course and a high school geometry course. You should be able to use problem-solving strategies and translate word problems into mathematical expression; to recognize relationships between variables in graphs; and to identify one-, two-, and three-dimensional figures, and use the formulas that yield the dimensions, area, or volume of the figures.

Graduation and persistence rates. Graduation and persistence-rate information for IPFW is available at www.ipfw.edu/registrar/consumer/

Classification of applicants:

Applicants for undergraduate admission are classified into one of the following admission categories:

1. Beginning freshman. If you have never attended a college as a degree-seeking student, you must submit an application, a high school transcript or GED scores, and an application fee. Unless you graduated from high school more than two years ago, you must also submit SAT I or ACT scores.

To have your SAT I scores sent to IPFW, use code number 1336.

To have your ACT scores sent to IPFW, use code number 1217.

If you are a high school student, you should apply to IPFW as soon as possible after your junior year. Priority consideration will be given to applications for regular admission received by:

  Aug. 1 for *fall semester*
  Dec. 15 for *spring semester*
  May 1 for *summer session I*
  June 15 for *summer session II*

If your application and supporting materials are received after these deadlines, you either may be admitted on a temporary basis or advised to pursue regular admission for a subsequent semester.

If you are a high school senior completing graduation requirements at the end of your seventh semester, you must meet all regular admission criteria listed below in order to enroll in the spring semester. If you have not met all requirements, you will be considered for admission for the following fall.

Admission requirements. If you graduated from high school more than two years before the semester for which you are seeking admission and earned a high school diploma (not a certificate of completion), IPFW will waive the general requirements listed below. However, some of the university's degree and certificate programs have admission requirements in addition to the campus requirements. These program-specific requirements are explained in Parts 4 and 5 of this *Bulletin* and cannot be waived.

Requirements for Indiana residents. As a resident of Indiana, you may expect to be admitted if you (1) are a graduate (which includes passing of the GQE) of an Indiana-accredited high school with a CORE 40 or Core 40 with Academic Honors or Core 40 with Technical Honors Diploma, (2) submit satisfactory SAT I or ACT scores, (3) submit your application to IPFW on time, and (4) meet the following requirements:

Admission to Indiana University programs. You must rank in the upper half of your high school class. Your high school units (semesters) should include at least six units of math (algebra, geometry, and advanced algebra) and six units of laboratory sciences (biology, chemistry, or physics), six units of social studies, four units of foreign language, and other units to total 40 units. Eight units of English are required.

Admission to Purdue University programs. Admission requirements for Purdue University programs vary as follows:

Programs in the College of Arts and Sciences: If you plan to complete a bachelor's degree with majors in math or a science in four years, you should have completed the following in high school: one unit of trigonometry and two units of chemistry (for any science degree).

Programs in technology, organizational leadership and supervision, and consumer and family sciences require that you rank in the top two-thirds of your high school class, and that your transcript shows eight units (semesters) of English and two each of algebra, geometry, and advanced algebra, and four units of laboratory science.

For admission to programs in *engineering*, see admission requirements under the College of Engineering, Technology, and Computer Science.

For admission to programs in *nursing*, see admission requirements under the College of Health and Human Services.

Other Purdue programs not having program-specific requirements require that you be in the top half of your high school class and that your high school transcript shows eight units (semesters) of English, and six each of math, laboratory science, and social studies. IPFW defines math as algebra, geometry, trigonometry, and calculus. Laboratory sciences include biology, chemistry, and physics.

Additional requirements for nonresidents. If you are not a resident of Indiana, you must meet the regular admission criteria for Indiana University or Purdue University and those for the program of study you have selected, and must generally rank in the top half of your high school graduating class.

Exploratory. If you graduated from high school within the past two years, have not attended another college or university, and do not meet the standards for regular admission, you may be eligible to begin as an exploratory student. To be admitted as an exploratory student, you must rank in the top 80 percent of your high school graduating class; have completed eight units of English, two units of academic algebra, two units of academic geometry, and two units of laboratory science; and one of the following:

   rank in the top 80 percent of your high school graduating class, or
   have a combined SAT score of 1120 or above or an ACT composite score of 16 or above.
Contact an IPFW admissions counselor if you do not qualify for admittance as an exploratory student and wish to discuss your options.

Exploratory students receive academic advising through the Mastodon Advising Center (Kettler 109, 260-481-6595).

Applications and other required materials must be received by August 1 for fall semesters and by December 1 for spring semesters.

2. Intercampus transfer from Indiana University or Purdue University. If you are currently attending, or have attended, another IU or Purdue campus and want to transfer temporarily or permanently to IPFW, you must submit an application, an unofficial transcript from your IU or Purdue campus, and official transcripts from any colleges attended since your enrollment at IU or Purdue. No application fee is due.

3. Transfer. If you have attended college but never attended IPFW, IU, or Purdue, you must submit an application, a high school transcript or GED scores, an application fee, and official transcripts from all colleges you have attended. A cumulative GPA of 2.00 (C) or higher is required. If your grades are deficient, you may be considered for admission for the following semester.

4. Re-entry. If you previously attended IPFW but have not registered for classes at IPFW for more than one year, you must submit an application, unofficial IU or Purdue transcript(s), and official transcripts from any colleges attended since your enrollment at IU or Purdue. No application fee is due.

Since your re-entry is subject to the approval of the specific division/department you wish to re-enter, several working days may be required to process your application before you can register for classes.

5. Special high school. If you are a high school junior or senior ranking in the top half of your class, you may take up to 24 credits as a <u>temporary student</u>. You must submit an application, and a high school transcript. SAT I or ACT scores may be required. No application fee is due. You are not eligible for financial aid.

6. Special adult. If you graduated from high school more than two years ago and have not attended college, you may take up to 24 credits at IPFW as a temporary student. You must submit an application but need not submit an application fee or additional documentation. You are not eligible for financial aid.

7. Special college graduate. If you have a bachelor's degree and wish to take undergraduate courses but <u>do not plan to pursue another undergraduate degree</u>, you may take up to 24 undergraduate credits as a temporary student. You must submit an application but need not submit an application fee or additional documentation. You are not eligible for financial aid.

8. Guest. If you want to become a visiting student from another college outside the IU or Purdue systems, you may enroll temporarily at IPFW for up to 24 credits. You must submit an application and an official transcript from your home institution. No credits will be evaluated for transfer to IPFW. No application fee is due. You are not eligible for financial aid.

Institutional, state, and federal financial aid is not available to special adult students, graduate nondegree students, special high school students, and guest students. These are temporary/nondegree-seeking classifications.

Regular admission of a temporary student. If you are admitted in temporary status, you may apply for regular admission. After you have earned 24 credits in temporary status, you may register for additional credits only after you apply for and are granted regular admission. If you are granted regular admission, you will be notified as to which of the courses you completed as a temporary student may be applied to satisfy the requirements of your degree program. An application fee will be charged.

Academic renewal. This option may be available to you under the following conditions:

> You were previously admitted to and completed classes at IPFW;
> You have not registered for classes at IPFW or any other campus of Indiana University or Purdue University for five or more calendar years; and
> The college/school/division through which you re-enter IPFW provides this option for eligible students.

If you are eligible for the academic-renewal option, a participating college/school/division may exclude from the calculation of your graduation GPA grades you previously earned that are considered to be below "passing." However, both these grades and the courses in which they were earned will remain on your official academic record.

You must request this option; it must be exercised during the re-entry semester and can be employed only one time per student. For additional information, please contact the college/school/division that offers the degree you are seeking.

2. Affiliation with Indiana University or Purdue University

IPFW is a campus of both Indiana University and Purdue University. If you are enrolled at IPFW as an Indiana University student and transfer to another campus of Indiana University, all credits and grades you have earned will be retained on your academic record. The same is true if you are enrolled at IPFW as a Purdue University student and transfer to another campus of Purdue University. However, if you change your university affiliation when transferring from IPFW to another campus, courses completed at IPFW will be treated as transfer credit.

3. Residency

Resident student status for fee purposes. When you are admitted to IPFW, you are classified by Admissions as a resident or nonresident of Indiana. This classification is determined by rules established for all IPFW students by the trustees of Purdue University. If you are classified as a nonresident student, you must pay nonresident fees as shown in the schedule of fees.

Among other criteria, resident student status for fee purposes requires all independent students who enter or re-enter Indiana to be domiciled in the state for 12 consecutive months before the first day of classes of the semester or summer session for which reclassification may be sought. If you think you are classified incorrectly, you may apply for resident student status. To appeal your residency classification, go to the following Web site and print off the application and instructions:

www.ipfw.edu/registrar/policies/residency.shtml

When complete, return the form to IPFW Registrar, 2101 E. Coliseum Blvd., Fort Wayne, IN 46805-1499.

4. Student Identification Number

You will be assigned a nine-digit number typically beginning with either 900 or 999 as your student identification number. It is used to identify records within IPFW and has no significance outside IPFW. It will not be provided to external agencies or individuals except in accordance with university policy on release of student information.

You are, however, required to provide IPFW with your social security number so that IPFW can issue certain informational returns to the Internal Revenue Service and to you. You are also required to provide your SSN on the Free Application for Federal Student Aid if you desire to apply for federal or state financial aid. IPFW does not use your SSN as your student identification number, but only for those purposes required by law or governmental agencies.

5. Fees and Expenses

All fees are subject to change by action of the trustees. Fees for the 2010-11 school year are shown below:

Course fees (may not apply to continuing-education courses)

Undergraduate residents	$242.40 per credit
Undergraduate nonresidents	$582.20 per credit
Graduate residents	$298.85 per credit
Graduate nonresidents	$676.70 per credit
Distance learning classes	$306.00 per credit

If you audit a course, regular course fees are assessed.

Other fees. The following fees are in addition to the course fees listed above.

Admission application $50
Readmission application $100

Late registration fee $8.50 per credit

($100 maximum)

Continuing Studies fee varies

Refunds. Fee assessments and/or refunds are determined as of the date forms are submitted to the registrar's office in person or via the Web registration system, regardless of any other dates that may appear on the forms. Requests for exceptions to the refund schedule will be considered only to resolve problems that result from (1) documented errors made by university representatives, or (2) other circumstances that are clearly the responsibility of IPFW. Requests and supporting documentation must be received by the registrar's office within the first two weeks of classes.

IPFW reserves the right to cancel courses and will refund all fees assessed. If you withdraw from a class, the following refund schedule will apply:

Number of Weeks	*100%*	*60%*	*40%*	*20%*	*0%*
14, 15, or 16	Days 1–7	Days 8–14	Days 15–21	Days 22–28	Thereafter
12 or 13	Days 1–7	Days 8–14	Days 15–21	Days 22–28	Thereafter
9, 10, or 11	Days 1–7	Days 8–14	Days 15–21	Days 22–28	Thereafter
8	Days 1–3	Days 4–7	Days 8–10	Days 11–14	Thereafter
7	Days 1–3	Days 4–7	Days 8–10	Days 11–14	Thereafter
6	Days 1–3	Days 4–7	Days 8–10	Days 11–14	Thereafter
5	Days 1–3	N/A	Days 4–7	N/A	Thereafter
4	Days 1–3	N/A	Days 4–7	N/A	Thereafter
3	Days 1–3	N/A	Days 4–7	N/A	Thereafter
2	Days 1–2	N/A	Days 3–4	N/A	Thereafter
1	Day 1	N/A	Day 2	N/A	Thereafter
Less than 1	Day 1	N/A	N/A	N/A	Thereafter

Notes: A 100 percent refund will be allowed through the day of the first class meeting, even if it occurs after the designated period.

Any course meeting for more than eight weeks will use the refund schedule approved for fall and spring semesters.

All calendar days are counted, including weekends.

If you are receiving federal Title IV financial aid (Stafford, Pell, Perkins, SEOG), and you make a full withdrawal, a calculation will be made to determine the amount of unearned aid that you will be required to repay. Specific information about this calculation may be obtained at the financial aid office or at www.ipfw.edu/financial.

Refunds are not transferable from one student to another. To qualify for a refund, your class withdrawal must be processed during the periods specified above. The refund schedule for off-campus credit classes offered through the Division of Continuing Studies may differ from the one above and appears in registration materials published by the Division of Continuing Studies.

Payment plan options. Payment plan options are available through the bursar's office.

Senior citizen fee-remission program. A waiver equal to one-half the resident tuition (to a maximum of 9 credits per semester) is available to Indiana residents who are age 60 or older, retired, not full-time employees, and high school graduates or GED recipients. The waiver does not apply to fees. This program is available only during the week prior to the start of classes and also during late registration. Additional information and applications are available from IPFW Financial Aid (Kettler 102, 260-481-6820).

6. Enrollment Certification

The registrar's office is the only university office authorized to officially certify your enrollment status. All requests for enrollment certification should be directed to that office. Your enrollment status for a specific semester/session can be certified only after classes for that semester/session have begun and will be reported only as of the date requested.

7. Statement on Civility

Indiana University–Purdue University Fort Wayne is committed to the goals and ethics of academic investigation and education. The foundation of academic pursuit is the process of free inquiry, in which individuals may openly explore and express ideas. Free inquiry requires an environment that encourages open investigation, as well as the educational growth and positive social development of individuals; therefore, it is important to state explicitly the ethics that define our academic community.

Prominent among the values that define the academic community is civility, which includes mutual respect, fairness, and politeness. Membership in any community requires a concern for the common good for all who belong to that community. Each individual may possess different ideas, as well as different ways of communicating those ideas, particularly in a community as varied and diverse as a university. Because of these differences, respect and civility are integral to maintaining the quality of the academic environment and free inquiry. Respect and civility should therefore be afforded to all individuals regardless of race, ethnicity, gender, age, sexual orientation, disability, religion, family status, socioeconomic level, educational background, veteran status, or position at the university.

Because it is not possible to establish a set of rules or guidelines that will address every issue of civility, all members of the academic community are called upon to promote and value this ethic of common respect and civility. Ultimately, such a community-wide concern will assure the continuation of a free and open exchange of ideas.

8. Affirmative Action, Nondiscrimination, and Nonharassment

IPFW is committed to maintaining a community that recognizes and values the inherent worth and dignity of every person; fosters tolerance, sensitivity, understanding, and mutual respect among its members; and encourages each individual to strive to reach his or her own potential. In pursuit of its goal of academic excellence, the university seeks to develop and nurture diversity. The university believes that diversity among its many members strengthens the institution, stimulates creativity, promotes the exchange of ideas, and enriches campus life.

IPFW views, evaluates, and treats all persons in any university-related activity or circumstance in which they may be involved solely as individuals on the basis of their personal abilities, qualifications, and other relevant characteristics.

IPFW prohibits discrimination against any member of the university community on the basis of race, religion, color, sex, age, national origin or ancestry, marital status, parental status, sexual orientation, disability, or status as a disabled or Vietnam-era veteran. The university will conduct its programs, services, and activities consistent with applicable federal, state, and local laws, regulations, and orders and in conformance with the procedures and limitations as set forth in Purdue University's Executive Memorandum No. D-1, which provides specific contractual rights and remedies. Additionally, the university promotes the full realization of equal employment opportunities for women, minorities, persons with disabilities, and Vietnam-era veterans through its affirmative action program.

If you have a question or complaint, or want advice, you may talk with the affirmative action officer or an official designee (Kettler 110N, 260-481-6106) or the director of Services for Students with Disabilities (Walb 113, 260-481-6657).

9. Release of Student Information

The IPFW policy governing access to student records, which complies with the *Family Educational Rights and Privacy Act of 1974*, is described below:

Definitions:

A *record* includes any data or information about you and related individuals, regardless of the media used to create or maintain the record.

Educational records include records maintained by the institution but exclude records maintained by individuals and available only to those individuals or designated substitutes (that is, "personal files"). Your educational records are located and maintained by administrators in one or more of the following offices: Academic Counseling and Career Services; Admissions; Alumni Relations; Athletics, Recreation, and Intramural Sports; Bursar; Center for Academic Support and Advancement; Continuing Studies; Financial Aid; Honors Program; Registrar; and University Police, as well as the student affairs administration and academic units.

Note: The registrar's office is the *only* university office authorized to issue official transcripts and certify students' enrollment status. All requests for such documentation must be directed to that office.

Public information consists of your name, class standing, college/school/division, major field of study, dates of attendance, degrees and awards, recognized student activities, sports, athletics information, and current enrollment status; your address and telephone number are also public information unless you have filed a registrar's form to keep these private. Records of arrests and/or convictions are public records and thus not subject to university policy.

Note: If you wish to restrict the release of your address and telephone number, you must do so by the end of the first week of classes for a session in order to exclude this information from any student directory that may be published.

Release in emergencies. The confidentiality of all records may be broken in an emergency if deemed necessary by the severity of the emergency, the usefulness of the records, and the extent to which time is critical.

Release to you. Your records are available to you with the following exceptions: confidential letters of recommendation submitted prior to 1975; records of your parents' financial status; records related to your student employment that are subject to other laws and are administered by Human Resources; medical and psychological records, which will be released only to a healthcare professional designated by you; and, if you signed a voluntary waiver of access, letters of recommendation related to admission, candidacy for awards, and candidacy for employment—these records may be used only for the purpose originally intended.

You may see any of your available records within 30 days after submitting a written request, either in person or by mail, and may copy any of these records, subject only to payment of any applicable copying charges. You will receive an interpretation of the record upon request, at or after the time that access is granted.

If you object to any part of your record and the responsible office will not revise the record as requested, you may request a formal hearing concerning the objection. Policies and procedures governing the hearing process will be specified by the vice chancellor for academic affairs.

Release to IPFW faculty and staff. Your records are available to members of the faculty and staff who have a legitimate need for them, as determined by the administrator of the office responsible for maintenance of the record.

Release to others. Except as specified below, your records will be released only upon completion of a consent form or letter you have signed. Any such release will include a notice that further release by the recipient is prohibited by law. A record of the release will be maintained.

Records about you will be released without your consent to your parents if you are a dependent as defined by the Internal Revenue Service; to federal officers as prescribed by law; as required by state law; to agencies or individuals conducting educational research, provided that the administrator of the records is satisfied concerning the legitimacy of the research effort and the confidentiality to be maintained by the researcher; to agencies responsible for accreditation of the institution or its programs; in response to a lawful subpoena, after making reasonable attempts to provide prior notification and opportunity for objection by you; and to institutional security officers when necessary for a criminal investigation.

Retention of records. IPFW reserves the right to maintain only those records it considers useful and to set retention schedules for various categories of those records. However, the administrator responsible for each category of records will ensure that a record being challenged is not destroyed prior to resolution of the dispute.

10. Parking and Traffic Regulations

Parking. You are charged a parking fee based on the number of credits you take. This entitles you to park in open parking spaces (not in spaces designated as "A" parking, green-lined spaces) in lots or garages. Parking permits for students with disabilities are available from University Police (Support Services 105). Validation from a physician or Services for Students with Disabilities (Walb 113, 260-481-6657) is required.

Traffic regulations. The operation of motor vehicles on the IPFW campus is governed by applicable state, local, and campus regulations. University police officers are empowered to enforce these statutes. Additional information is published in the *Student Handbook and Planner*, with complete information about IPFW parking and traffic regulations appearing in the *Vehicle Regulations and Emergency Information* brochure available from University Police and other campus locations.

11. Smoking

Smoking is prohibited in any university facility and on any university grounds except in parking lots and designated smoking areas.

The purpose of this policy is to provide a healthy, comfortable, and productive environment for the campus community. Accordingly, all employees, students, and visitors are expected to comply.

12. Drug and Alcohol Abuse Prevention

Guidelines for the prevention of alcohol and substance abuse are included in the *Student Handbook and Planner*. Copies of the handbook are available at various campus locations.

13. Ethical Guidelines for Student Computer Users

(Reprinted from IPFW Faculty Senate Document SD98-24a, revised Dec. 10, 2001)

The IPFW Code of Student Rights, Responsibilities, and Conduct (hereafter, the Code) sets forth general policies and procedures governing the use of university facilities by students. The purpose of these guidelines is to interpret these policies and procedures specifically for students using the university's computing facilities.

University computer resources are designed to be used in connection with legitimate, university-related purposes. The use of university computing resources to disseminate obscene, pornographic, or libelous materials; to threaten or harass others; or otherwise engage in activities forbidden by the Code is subject to disciplinary action as specified in the Code.

Intellectual property rights and responsibilities. Central to an understanding of the rights and responsibilities of student computer users is the notion of intellectual property. In brief, this concept holds that materials stored in electronic form are the property of one or more rightful owners. Like any other property, electronically stored information, whether data or programs, can be stolen, altered or destroyed, misappropriated, or plagiarized. Such inappropriate activities violate the Code and are subject to disciplinary action as set forth in the Code.

Access rights and responsibilities. The use of lab, e-mail, Web, and other computing resources should be focused on facilitating individual or small-group interaction; other uses—for example, using computer resources to conduct a commercial enterprise or private business—constitute theft from the university subject to disciplinary action as specified in the Code. Similarly, the introduction of information that interferes with the access or information of others—for example, the introduction of programs of a type commonly called "viruses" or of nonacademic, network game simulations—is subject to disciplinary action. E-mail should not be used for junk mailings.

Junk e-mail, including chain mail, wastes system resources and the time of those who receive it. Neither should e-mail be used to forge a message so as to have it appear to come from another user. All such inappropriate use of e-mail is subject to disciplinary action, including, but not limited to, loss of a university-sponsored e-mail account.

Certain university-controlled computing resources are openly available to all students on a first-come, first-served basis; access to other resources is limited—often only by means of posted notices—to students in certain disciplines or specified courses; access to still other resources is carefully controlled by such means as user IDs and passwords.

Students are responsible for adhering to the spirit and the letter of these access controls. Violations of access rights can be interpreted under the Code as theft of university services whether or not those services have been separately billed. Students are also responsible for ensuring the confidentiality of access rights under their control. For example, release of a password, whether intentional or inadvertent, invites misuse by others and may be subject to disciplinary action.

General rights and responsibilities. Despite access controls being in place, system failures may occasionally make it possible for you to inappropriately read, use, copy, alter, or delete information stored electronically on a university computer system. You are responsible for not exploiting such system failures and for reporting them to proper university personnel so that corrective steps can be taken.

The university strives to maintain a quiet, library-like environment in its computer labs so you can use your time productively and with minimal distractions. Proper use of computer resources follows the same standards of common sense and courtesy that govern the use of other public facilities. Improper use violates those standards by infringing upon others' ability to fulfill their responsibilities.

All inappropriate uses of computing resources should be reported to proper authorities for possible disciplinary action.

Code of Student Rights, Responsibilities, and Conduct

Part I. Student Rights and Responsibilities

Preamble. IPFW regulations governing the actions of students are intended to enhance the values that must be maintained in the pursuit of IPFW's mission and goals. These values include freedom of inquiry, intellectual honesty, freedom for the open expression of ideas and opinions within limits that protect the rights of others, and respect for the views and the dignity of other persons.

In exercising their rights, students must bear responsibility to act in accordance with local, state, and national laws, and IPFW rules. No right should be construed as enabling students to infringe upon the individual rights of another member of the academic community.

Individual Rights and Responsibilities as Citizens

Students retain all of their citizenship rights when enrolled at IPFW.

Students who violate civil law may incur penalties prescribed by civil authorities. Only where IPFW's interests as an academic community are distinct from those of the general community should the special authority of IPFW be asserted.

Nondiscrimination. IPFW is committed to maintaining a community that recognizes and values the inherent worth and dignity of every person; fosters tolerance, sensitivity, understanding, and mutual respect among its members; and encourages each individual to strive to reach his or her own potential. In pursuit of its goal of academic excellence, the university seeks to develop and nurture diversity. The university believes that diversity among its many members strengthens the institution, stimulates creativity, promotes the exchanges of ideas, and enriches campus life.

IPFW views, evaluates, and treats all persons in any university-related activity or circumstance in which they may be involved, solely as individuals on the basis of their own personal abilities, qualifications, and other relevant characteristics.

IPFW prohibits discrimination against any member of the university community on the basis of race, religion, color, sex, age, national origin or ancestry, marital status, parental status, sexual orientation, disability, or status as a veteran. The university will conduct its programs, services, and activities consistent with applicable federal, state, and local laws, regulations and orders and in conformance with the procedures and limitations as set forth in Purdue University's Executive Memorandum No. D-1, which provides specific contractual rights and remedies.Additionally, IPFW is an equal access, equal opportunity, affirmative action university.

It is the policy of IPFW to maintain the campus as a place of work and study for faculty, staff, and students free from all forms of harassment. In providing an educational and work climate that is positive and harassment-free, faculty, staff, and students should be aware that harassment in the workplace or the educational environment is unacceptable conduct and will not be tolerated. [See Anti-harassment Policy as stated in Executive Memo C-33] This policy addresses harassment in all forms, covering those with legally protected status for reasons of race, gender, religion, color, age, national origin or ancestry, or disability, as well as those who are harassed for other reasons such as sexual orientation.

Individual Rights and Responsibilities as Students

Degree-seeking students have the responsibility for selecting a major field of study, choosing an appropriate degree program within the discipline, planning class schedules, and meeting the requirements for degrees. IPFW will provide advisors to assist students in academic planning, but students are responsible for being knowledgeable about all academic requirements that must be met before a degree is granted.

Students have the right to receive in writing (the terms "in writing" or "written" here and throughout this Code include both printed and electronic communication) accurately and plainly stated information that enables them to understand clearly:

the general qualifications for establishing and maintaining acceptable academic standing within a particular major and at all other levels within IPFW,

the graduation requirements for specific curricula and majors, and

at a minimum, the course objectives, requirements, and grading policies set by individual faculty members for their courses by means of a course syllabus.

In the classroom, students have the freedom to raise relevant issues pertaining to classroom discussion, to offer reasonable doubts about data presented, and to express alternative opinions to those being discussed. However, in exercising this freedom, students shall not interfere with the academic process of the class. Students who interfere with the academic process of a class may be directed to leave class for the remainder of the class period. Longer suspensions from a class must be preceded by the disciplinary procedures set forth in Part III.B of this Code.

Students' course grades shall be based upon academic performance, and not upon opinions or conduct in matters unrelated to academic standards. Students have the right to discuss and review their

academic performance with their faculty members. Students who feel that any course grade has been based upon criteria other than academic performance have the right to appeal through the IPFW grade appeals system. [See IPFW Academic Regulations—Grade Appeals.]

Students have the right to obtain a clear statement of basic rights, obligations, and responsibilities concerning both academic and personal conduct.

Students have the responsibility to become familiar with, uphold, and follow all codes of conduct, including this Code, relevant codes of colleges/schools and departments, professional programs, and all rules applicable to conduct in class environments or university-sponsored activities, including off-campus clinical, field, internship, or in-service experiences.

Students have the right to participate in the formulation of IPFW policies that directly affect them. In exercising this right, students have the right of access to appropriate information, to express their views, and to have their views considered.

Students have the privacy rights specified in the IPFW policy on the release of student information. [See IPFW Academic Regulations—Release of Student Information.]

Rights and Responsibilities as Participants in Student Groups, Student Organizations, and Campus Activities

Students have the right to form, join, and participate in groups or organizations that promote the common interests of students, including but not limited to groups or organizations that are organized for academic, professional, religious, social, economic, political, recreational, or cultural purposes.

Any group of students may petition to become a recognized IPFW student organization in accordance with the established guidelines. Any appeal of a campus decision to discontinue or refuse recognition of a student group shall be made through the Campus Appeals Board.

Any student group recognized as an IPFW student organization shall be entitled to the use of available campus facilities in conformity with regulations. [See IPFW Regulations Governing the Use and Assignments of University Facilities at the Fort Wayne Campus.] Recognition shall not imply IPFW endorsement of group goals and activities.

Any recognized IPFW student organization or any group of students able to secure sponsorship by a recognized student organization and to demonstrate financial responsibility has the right to present speakers of its choice to address members of the IPFW community using appropriate campus facilities. These assemblies shall be subject to regulations necessary to prevent space and time conflicts and to protect the operations of the campus and the safety of persons or property.

Freedom of assembly shall be guaranteed to all members of the IPFW community. Such assemblies shall be consistent with IPFW regulations regarding the time, place, and manner of such assemblies.

A student, student group, or student organization has the right to distribute written material on campus without prior approval providing such distribution is consistent with appropriate regulations concerning the time, place, and manner of distribution and does not interfere with IPFW activities.

Students who publish student publications under IPFW auspices have the right to be free of unlawful censorship. At the same time, students who publish such publications must observe the recognized canons of responsible journalism such as the Sigma Delta Chi Code of Ethics and avoid libel, obscenity, undocumented allegations, attacks on personal integrity, and the techniques of harassment and innuendo. Editors and managers of The Communicator may not be arbitrarily suspended or removed from their positions because of student, faculty, administrative, or public disapproval of their editorial policies or publications. Student editors and managers may be suspended or removed from their positions only for proper cause and by appropriate proceedings conducted by the Board of Directors. All student publications shall explicitly state on the editorial page that the opinions expressed are not necessarily those of IPFW or of the student body.

Summary of Rights and Responsibilities

This statement of Student Rights and Responsibilities is a reaffirmation by the entire IPFW community that the constitutional guarantees and the basic principles of fair treatment and respect for the integrity, judgment, and contribution of the individual student, coinciding with each student's freedom to learn set forth in the foregoing articles, are essential to the proper operation of an institution of higher learning. Accordingly, in the interpretation and enforcement of the policies, rules, and regulations of IPFW, these student rights shall be preserved and given effect, but they shall not be construed or applied so as to limit the rights guaranteed students under the Constitution of the United States or the Constitution of the State of Indiana.

Whenever a student or a group of students claims that these rights have been violated and that the student or group of students has been or will be adversely affected thereby, and such complaint is not resolved informally by the interested parties, it may be presented to one (and only one) appropriate body of the campus appeals system. In case of grade appeals, the individuals and committees designated in the IPFW grade appeals system shall have final authority. In the case of Student Housing decisions, the individuals and committees designated in the Housing Agreement shall have final authority. In the case of complaints of discrimination and harassment, the individuals and committees named in the Purdue University Procedures for Resolving Complaints of Discrimination and Harassment shall have the authority designated. In all other cases, the Campus Appeals Board shall submit recommendations to the chancellor of IPFW. If necessary, the chancellor of IPFW may present such recommendations to the university president and Board of Trustees for their consideration. If the student has a question as to whether grade appeals procedures, Student Housing procedures, or student complaint procedures (Part IV) shall be used to resolve a complaint, the dean of students shall decide which one set of procedures shall be used after consulting with the unit head of the faculty or staff member with whom the student or group of students has the complaint. Once the appropriate process is identified, the dean of students will explain the timelines associated with the process.

The enumeration of these rights and responsibilities shall not be construed to deny or disparage others retained by the student. Nothing contained in the Code of Student Rights, Responsibilities, and Conduct shall be construed as any denial or limitation upon the legal authority or responsibility of the Board of Trustees to establish policies and to make rules and regulations governing the operation of IPFW.

Amendment of Rights and Responsibilities

Proposed amendments of these rights and responsibilities may be initiated by the Indiana-Purdue Student Government Association, IPFW Senate, administrative officials, or the Board of Trustees and shall be submitted to the Indiana-Purdue Student Government Association and IPFW Senate, for consideration and recommendation before adoption by the Community Advisory Council and approval by the President of Purdue University. In the event the Community Advisory Council adopts an amendment not approved by the Indiana-Purdue Student Government Association and IPFW Senate, either the Indiana-Purdue Student Government Association or IPFW Senate may withdraw its endorsement of the rights and responsibilities in whole or in part.

Definitions

An IPFW activity is any teaching, research, service, administrative, or other function, proceeding, ceremony, program, or activity conducted by or under the authority of IPFW or with which IPFW has any official connection, whether taking place on or off campus. Included within this definition without limitation are IPFW cooperative education programs, internships, practicums, field experiences, and athletic or other intercollegiate activities.

IPFW property means property owned, controlled, used, or occupied by IPFW.

Part II. Student Conduct Subject to Disciplinary Action

Preamble. Students are expected and required to abide by the laws of the United States, the State of Indiana, and the rules and regulations of IPFW. Students are expected to exercise their freedom to learn with responsibility and to respect the general conditions that maintain such freedom. IPFW has developed the following general regulations concerning student conduct which safeguard the right of every individual student to exercise fully the freedom to learn without interference. IPFW may discipline a student for committing acts of academic or personal misconduct.

Academic Misconduct – This type of misconduct is generally defined as any act that tends to compromise the academic integrity of the University or subvert the educational process. At IPFW, specific forms of academic misconduct are defined as follows:

Using or attempting to use unauthorized materials, information, or study aids in any academic exercise. The term "academic exercise" includes all forms of work submitted for credit or hours.

Falsifying or fabricating any information or citation in an academic exercise.

Helping or attempting to help another in committing acts of academic dishonesty.

Adopting or reproducing ideas or statements of another person as one's own without acknowledgment (plagiarism).

Submitting work from one course to satisfy the requirements of another course unless submission of such work is permitted by the faculty member.

Serving as or permitting another student to serve as a substitute (or 'ringer') in taking an exam.

Altering of answers or grades on a graded assignment without authorization of the faculty member.

Engaging in activities that unfairly place other students at a disadvantage, such as taking, hiding, or altering resource material.

Violating professional or ethical standards of the profession or discipline for which a student is preparing (declared major and/or minor) as adopted by the relevant academic program.

    a. In order to ensure that the highest standards of professional and ethical conduct are promoted and supported at IPFW, academic departments should establish a written policy/statement, addressing the professional or ethical standards for their discipline, which is distributed to all students who are preparing in the discipline. Students have the responsibility to familiarize themselves with the academic department's policy/statement.

Personal Misconduct

IPFW may discipline a student for the following acts of personal misconduct that occur on campus property or in connection with an IPFW activity:

Dishonest conduct, including but not limited to false accusation of misconduct; forgery, alteration, or misuse of any IPFW document, record or identification; and giving to an IPFW official information known to be false.

Release of access codes for IPFW computer systems to unauthorized persons; use of an access code for a purpose other than that stated on the request for service.

Lewd or indecent conduct, or obscene conduct, or obscene expression as defined by law.

Disorderly or disruptive conduct that interferes with teaching, research, administration, or other IPFW or IPFW-authorized activity.

Failure to comply with the directions of authorized IPFW officials in the performance of their duties, including failure to identify oneself when requested to do so, and violation of the terms of a disciplinary action.

Unauthorized entry, use, or occupancy of campus facilities; refusal to vacate a campus facility when directed to do so by an authorized official of IPFW.

Unauthorized taking or possession of IPFW property or services; unauthorized taking or possession of the property or services of others.

Intentional action or reckless disregard that results in damage to or destruction of IPFW property or of property belonging to others.

Possession of firearms or other weapons; possession or display of any firearm except as authorized by the IPFW police; and intentional possession of a dangerous article or substance as a potential weapon, or of any article or explosive calculated to injure or discomfort any person. Public law enforcement officials who are required by their departments to carry their firearms at all times must register with the IPFW police.

Acting with violence; and aiding, encouraging, or participating in a riot.

Harassment, as defined by the IPFW Antiharassment Policy.

Hazing, defined as any conduct that subjects another person, whether physically, emotionally, or psychologically, to anything that may endanger, abuse, degrade, or intimidate the person as a condition of association with a group or organization, regardless of the person's consent or lack of consent.

Physical abuse of any person or conduct that threatens or endangers the health or safety of another person.

Any form of communication that involves an expressed or implied threat to interfere unlawfully with an individual's personal safety, or personally abusive language ("fighting words") inherently likely to provoke a violent reaction in a face-to-face situation.

Possession, consumption, distribution, or sale of alcoholic beverages as defined by state law, on campus except as expressly permitted by the Internal Operating Procedures for the Possession, Consumption, Distribution, and Sale of Alcoholic Beverages on the Fort Wayne campus.

Use, possession, manufacture, processing, distribution, or sale of any drug or controlled substance except as expressly permitted by law. The term "controlled substance" is defined in Indiana statutes, and includes, but is not limited to, substances such as marijuana, cocaine, narcotics, certain stimulants and depressants, hallucinogens, and unauthorized use of prescription drugs.

Violations of other published IPFW regulations, policies, or rules.

Violation of any IPFW rule governing student organizations, or the use of IPFW property (including the time, place, and manner of meetings or demonstrations on IPFW property), or of any other IPFW rule that is reasonably related to the orderly operation of IPFW.

Obstruction or disruption of any IPFW activity or inciting, aiding, or encouraging other persons to engage in such conduct. Obstruction or disruption means any unlawful or objectionable acts or conduct: (1) that seriously threaten the ability of IPFW to maintain its facilities available for performance of its educational activities, or (2) that are in violation of the reasonable rules and standards of IPFW designed to protect the academic community from unlawful conduct, or (3) that present a serious threat to person or property of the academic community. Such phrases shall include, without limitation of the foregoing general definition, the unlawful use of force or violence on or within any buildings or grounds owned, used, occupied, or controlled by IPFW; using or occupying any such buildings or grounds in violation of lawful rules or regulations of IPFW, or for the purpose or with the effect of denying or interfering with the lawful use thereof by others; and injuring or harming any person or damaging or destroying the property of IPFW or the property of others, within such buildings and grounds.

Other Student Conduct Issues

Demonstrations. Any individual or group activity or conduct apparently intended to call attention to the participants' point of view on some issues is not of itself misconduct. Demonstrations that do not involve conduct beyond the scope of constitutionally protected rights of free speech and assembly are, of course, permissible. However, conduct that is otherwise improper cannot be justified merely because it occurs in the context of a demonstration.

Misconduct Subject to Other Penalties. As provided by Indiana statute, misconduct that constitutes a violation of these rules and regulations may be punished after determination of guilt by the procedures herein provided without regard to whether such misconduct also constitutes an offense under the criminal laws of any state or of the United States or whether such conduct might result in civil liability of the violator to other persons.

Personal Conduct Not on IPFW Property. IPFW may discipline a student for acts of personal misconduct that are not committed on campus property or in connection with an IPFW activity if the acts distinctly and adversely affect the security of the campus community, the safety of others, or the integrity of the educational process.

Status During Disciplinary Proceedings. Except where summary action is taken as provided in Part III-C, the status of a student charged with misconduct shall not be affected, pending the final disposition of charges. The effective date of any disciplinary penalty shall be a date established by the final adjudicating body (dean of students or the Campus Appeals Board). In case of suspension or expulsion, the student shall not be withdrawn any earlier than the date the notice of charges originated or later than the effective date established by the final adjudicating body.

Part III. Student Disciplinary Procedures

Preamble. IPFW procedures for imposing academic and disciplinary sanctions are designed to provide students with the guarantees of due process and procedural fairness. Except as provided in Part IV, the procedures hereby established shall be followed in all cases in which IPFW institutes disciplinary proceedings against students for violations of rules of student conduct set forth in Part II.

Disciplinary Procedures for Academic Misconduct

The process for investigating disciplinary complaints of academic misconduct may vary depending upon the situation. An essential component of any disciplinary process should incorporate the ideals of due process. As such, a student whose conduct is being reviewed should know the nature of the information presented against them and be able to have a meaningful opportunity to be heard. Therefore, throughout Part III, Section A, of the

herein Code, whenever there is a requirement for the student to have an "opportunity to be heard," the minimum standard for that meaningful opportunity will include all of the following:

· notice of the nature of the alleged misconduct

· notice of the date, time, location, and general procedure of the review of the allegation

· notice of the potential outcomes of the review

· opportunity to address the information supporting the allegation

1. When a student in a course commits an act of academic misconduct related to that particular course, the faculty member teaching the course has the authority to initiate academic misconduct proceedings against the student in accordance with these procedures.

a. A faculty member who has information that a student enrolled in a course being conducted by the faculty member has committed an act of academic misconduct related to that course is required to hold a conference with the student concerning the matter within seven calendar days of discovering the alleged misconduct. The faculty member must advise the student of the alleged act of misconduct and afford the student the opportunity to address the information supporting the allegation.

b. If the faculty member finds that the student did commit the act of misconduct as alleged, the faculty member is authorized to impose an appropriate academic sanction related to the particular course involved. An appropriate academic sanction for such misconduct may include, and is limited to, one or more of the following:

(1) The student may be given a lower grade than the student would otherwise have received or a failing grade for any assignment, course work, examination, or paper involved in the act of misconduct.

(2) The student may be required to repeat the assignment, complete some additional assignment, or resubmit any assignment, course work, examination, or paper involved in the act of misconduct.

(3) The student may be given a lower grade than the student would otherwise have received or a failing grade for the course.

c. After imposing an academic sanction, the faculty member is required to report the matter and action taken within seven calendar days in writing to the student, the chair of the department in which the course is offered, the dean/director of the college/school/division in which the course is offered, the chair of the student's department, the dean/director of the student's college/school/division, and the dean of students.

d. The student has the right to appeal the faculty member's findings and/or sanction through the procedures specified in Part IV of this Code.

e. The chair of the student's department has the authority to initiate additional academic sanctions against the student if the chair concludes, in consultation with the dean of students, that additional sanctions may be warranted by the nature of the act or because the student has committed previous acts of academic misconduct. The chair must notify the student in writing within seven calendar days of the date of the faculty member's report if additional sanctions are contemplated at the department level. If additional sanctions are contemplated the student shall be provided an opportunity to be heard in accordance with the standards articulated in the opening paragraph of Part III, Section A. The chair must report the decision, including any sanctions imposed, in writing to the student, the college/school/division dean/director, and the dean of students within 10 calendar days of the student's opportunity to be heard. Sanctions imposed at the department level may include academic probation, denial of future admission, or dismissal from the department. The student may appeal the chair's decision (including sanctions) through the procedures specified in Part IV of this Code.

f. The dean/director of the student's college/school/division also has the authority to initiate additional academic sanctions against the student if the dean/director concludes, in consultation with the dean of students, that additional sanctions may be warranted by the nature of the act or because the student has committed previous acts of academic misconduct. The dean/director must notify the student in writing within seven calendar days of the date of the chair's report if additional sanctions are contemplated at the college/school/division level. If additional sanctions are contemplated, the student shall be provided an opportunity to be heard in accordance

with the standards articulated in the opening paragraph of Part III, Section A. The dean/director must report the decision, including any sanctions imposed, in writing to the student, the chair, and the dean of students within 10 calendar days of the student's opportunity to be heard. Sanctions imposed at the college/school/division level may include academic probation, denial of future admission, or dismissal from the college/school/division. The student may appeal the dean's/director's decision (including sanctions) through the procedures specified in Part IV of this Code.

2. When a student is alleged to have committed an act of academic misconduct that is not related to a course in which the student is enrolled, the chair of the student's department has the authority to initiate a review of the allegation.

a. The chair must notify the student in writing within seven calendar days of discovering the alleged misconduct if, in consultation with the dean of students, disciplinary action is contemplated at the department level. If disciplinary action is contemplated the student shall be provided an opportunity to be heard in accordance with the standards articulated in the opening paragraph of Part III, Section A. The chair must report the decision, including any sanctions imposed, in writing to the student, the student's college/school/division dean/director, and the dean of students within 10 calendar days of the student's opportunity to be heard. Sanctions imposed at the department level may include, and are limited to, one or more of the following: academic probation, denial of future admission, or dismissal from the department. The student may appeal the chair's decision (including sanctions) through the procedures specified in Part IV of this Code.

b. The dean/director of the student's college/school/division has the authority to initiate additional academic sanctions against the student if the dean/director concludes that additional sanctions may be warranted by the nature of the act or because the student has committed previous acts of academic misconduct. The dean/director must notify the student in writing within seven calendar days of the date of the chair's report if, in consultation with the dean of students, additional sanctions are contemplated at the college/school/division level. If additional sanctions are contemplated, the student shall be provided an opportunity to be heard in accordance with the standards articulated in the opening paragraph of Part III, Section A. The dean/director must report the decision, including any sanctions imposed, in writing to the student, the chair, and the dean of students within 10 calendar days of the student's opportunity to be heard. Sanctions imposed at the college/school/division level may include, and are limited to, one or more of the following: academic probation, denial of future admission, or dismissal from the college/school/division. The student may appeal the dean's/director's decision (including sanctions) through the procedures specified in Part IV of this Code.

3. A student may not be placed on disciplinary probation or suspended or expelled from IPFW because of an act of academic misconduct unless the dean of students concludes that such a sanction is justified by the nature of the act or because the student has committed previous acts of misconduct. If the dean of students concludes that additional disciplinary sanctions are warranted, the proceedings will be governed by the same procedures that apply to acts of personal misconduct (Part III-B).

Disciplinary Procedures for Personal Misconduct

Any member of the IPFW community may initiate a complaint with the dean of students. Disciplinary proceedings are those proceedings initiated by the issuance of a notice of charges and are governed by the following procedures.

1. Notice of Charges

a. A disciplinary proceeding is initiated by the dean of students by sending a notice to the student who is the subject of the complaint. If disciplinary proceedings are initiated against a student under the age of 18, the dean is required to make reasonable efforts to assure that the parent(s) or, when appropriate, the legal guardian of the student is notified concerning the proceedings and the nature of the complaint.

b. The notice shall be sent by certified mail to the student's address as it appears in the official records of IPFW or shall be delivered personally to the student. The notice shall quote the rule claimed to have been violated and shall fairly inform the student of the reported circumstances of the alleged misconduct. The notice shall require the student to appear in the office of the dean of students at a time and on a date specified (which ordinarily will not be earlier than three calendar days after the mailing of the notice) for a hearing on the alleged violations. A copy of these regulations shall accompany each notice of charges.

c. The notice shall inform the student of the following:

(1) The offense the student is alleged to have committed by citing the relevant section of these regulations;

(2) The date, time, and place of the alleged offense, and other relevant circumstances;

(3) The date, time, and place of the hearing to discuss the alleged violation;

(4) That the student may have an advisor or other counsel present during the hearing; that an advisor or counsel is limited to the role of advising the student; and that an advisor or counsel may not participate in presenting the case, questioning the witnesses, or making statements during the hearing;

(5) That the student need not answer questions and that a choice to remain silent will not be taken as an admission of guilt, nor shall it be detrimental to the student's position;

(6) That, if the student fails to appear for the hearing, the dean of students may (a) reschedule the conference; (b) dismiss the charges; or (c) if the dean reasonably believes the failure to appear to be inexcusable, impose any of the prescribed disciplinary penalties.

2. Hearing

a. When the student appears as required, the dean of students shall inform the student as fully as possible of the facts concerning the alleged misconduct and of the procedures that follow. The student may, but need not, make responses and explanations.

b. If, after discussion and such further investigation as may be necessary, the dean of students determines that the violation alleged is not supported by the evidence, the dean shall dismiss the accusation and notify the student.

c. If, after discussion, or if the student fails to appear, the dean of students believes that the violation occurred as alleged, the dean shall so notify the student and shall impose a disciplinary sanction by means of a written notice. The student, by such notice, shall have the option of accepting the finding and sanction or appealing the finding and/or sanction through the procedures specified in Part V of this Code.

d. Both the student and the student's accuser shall be informed of the outcome of any hearing brought alleging a sexual assault.

3. Disciplinary Sanctions

The dean of students is authorized to impose a sanction including, and limited to, one or more of the following:

a. *Reprimand and Warning.* A student may be given a reprimand accompanied by a written warning that the student may receive additional sanctions if the student engages in the same misconduct again or commits any other violation of this code.

b. *Disciplinary Probation.* A student may be placed on disciplinary probation for a specified period under conditions specified in writing by the dean of students, with a warning that any violation of the conditions or any further acts of misconduct may result in additional disciplinary sanctions, including suspension or expulsion from IPFW. As a condition of probation, the student may be required to participate in a specific program, such as an alcohol-education program, or to provide a specific service, such as the repair or restoration of any property damaged or taken by the student.

c. *Restitution.* A student may be required to pay the cost for the replacement or repair of any property damaged by the student. If the student fails to pay the cost or make the repairs, the student may be subjected to additional sanctions, including suspension or expulsion.

d. *Participation in a Specific Program.* A student may be required to participate in a specific program, such as an alcohol-education program. If the student fails to participate in the program as directed, the student may be subjected to additional sanctions, including suspension or expulsion.

e. *Provision of a Specific Service.* A student may be required to provide a specific service, such as the repair or restoration of any property damaged or taken by the student. If the student fails to provide the service as directed, the student may be subjected to additional sanctions, including suspension or expulsion.

f. *Suspension.* A student may be suspended from classes and future enrollment and excluded from participation in all aspects of campus life for a specified period of time.

g. *Expulsion*. A student may be permanently dismissed from IPFW.

Summary Action

Summary action by way of temporary suspension and exclusion from IPFW property may be taken against a student without the issuance of a notice of charges and without the procedures prescribed in Part III-B or Part IV on the following conditions: Summary action shall be taken only by the chancellor or the chancellor's designee, and only after the student shall have been given an opportunity to be heard if such procedure is practical and feasible under the circumstances. Summary action shall be taken only if the chancellor or the chancellor's designee is satisfied that the continued presence of the student on IPFW property threatens imminent harm to the student or to any other persons or to the property of IPFW or of others, or to the stability and continuance of normal university functions. Whenever summary action is taken under this provision, the procedures provided for in Part III-B for hearing and appeal or the procedures provided for in Part IV shall be expedited so far as possible in order to shorten the period of summary action.

Time Limitations

Time limitations specified in the preceding sections of this code may be extended by either the dean of students or the Campus Appeals Board for a reasonable period if an extension is justified by good cause under the totality of the circumstances. The documentation for extending the time limitations must be provided to the student.

Part IV. Student Complaint Procedures

A. Students having complaints concerning actions or decisions of faculty or staff members which are claimed to violate rights established under Part I.A.3 or Part I.A.4 of the Code, by using the Purdue University Procedures for Resolving Complaints of Discrimination and Harassment.

B. Students having complaints concerning actions or decisions which are claimed to violate other rights established under Part I of the Code must first make a reasonable effort to resolve the complaints informally with the faculty/staff member whose action or decision is the basis for the complaint. The effort to resolve the complaint informally with the faculty/staff member must be initiated by the student in a documented manner no later than the fourth week of the fall or spring semester immediately following the session in which the action or decision occurred. The documentation only needs to be dated and indicate that the student has made a good faith effort at initiating the conversation with the responsible faculty/staff member. For a complaint to continue to receive consideration under these procedures, the student must initiate each successive step in the process within 20 calendar days of conclusion of the previous step. In addition, it is expected that each step in the process will be concluded within 20 calendar days of initiation.

C. If the complaint is not resolved informally between the student and the responsible faculty or staff member, the student may pursue the complaint informally with the faculty or staff member's department head who shall investigate, mediate, and suggest a resolution.

D. If the complaint remains unresolved after the department head's attempt to mediate a resolution, the student may continue to pursue the complaint with the head of the next highest administrative level, e.g., the college/school/division dean/director, who shall investigate, mediate, and suggest a resolution.

E. Only after all such remedies have been exhausted may the student request a hearing before the Campus Appeals Board. To request a hearing before the Campus Appeals Board the student must file a complaint with the dean of students. The complaint must describe the action or decision claimed to violate established rights, identify the right(s) claimed to have been violated, and specify the remedy sought. The dean shall direct properly received complaints to the chair of the Campus Appeal Board. The Campus Appeals Board shall have the authority and duty to reach findings and to convey recommendations to the chancellor of IPFW. See Part V of the Code for information about the Campus Appeals Board.

Part V. Campus Appeals Board

A. Composition

The Campus Appeals Board (CAB) shall consist of nine members selected in the following manner: Four students appointed by the president of Indiana-Purdue Student Government Association subject to confirmation by the IPSGA Senate; three faculty members elected by the IPFW Senate; and two administrative staff members appointed by the chancellor, one of whom shall be designated as chair of the Campus Appeals Board. An equal number of alternates from each constituent group shall be appointed at the same time and in the same manner as the regular members. From the members and alternates, the chair shall designate a hearing panel consisting of a minimum of three members including at least one student. A minimum of three panel members including at least one student is required for quorum.

B. Terms of Office

The term of office for student members and their alternates shall be one year, and for the faculty and administrative members, it shall be two years, except that members shall continue to have jurisdiction of any case under consideration at the expiration of their term. The terms of office for all members shall begin at the start of the fall semester. No member shall serve more than two consecutive terms. If any appointing authority fails to make the initial appointments to the Campus Appeals Board, or to fill any vacancy on the panel of alternates within seven calendar days after being notified to do so by the chancellor, or if at any time the Campus Appeals Board cannot function because of the refusal of any member or members to serve, the chancellor may make appointments, fill vacancies, or take such other action as deemed necessary to constitute a Campus Appeals Board.

C. Training

All persons chosen to serve as CAB members or alternates will complete appropriate training before being permitted to engage as a CAB panelist or investigator. The Chair of CAB is responsible for determining appropriate training, coordinating the training, and assuring that all members and alternates complete the training as required.

D. Jurisdiction and Time Extensions

The Campus Appeals Board may hear the following types of appeals from students: appeals of disciplinary findings and sanctions imposed by the dean of students, including findings and sanctions concerning student organizations; appeals of disciplinary findings imposed by faculty members, department chairs, or academic deans or division directors; appeals of IPSGA Judicial Court rulings; and appeals of faculty/staff decisions claimed to violate established student rights (per Part IV). Extension to any time limits specified below must be approved by the Chair of the Board.

E. Filing and Notification.

Students who wish to request CAB action shall submit a written appeal to the dean of students within ten calendar days of the date of the disciplinary sanction letter or within twenty calendar days of the conclusion of the previous step in the appeal process, as applicable. The dean shall in turn forward properly-filed appeals to the Chair of the Board. To be properly filed, the appeal must be submitted within the established time limits, signed and dated by the student, identify the action or decision being appealed, name the party whose decision or action is being appealed, list witnesses, identify any right claimed to have been violated (if applicable), and specify the remedy sought. Within ten calendar days of the Chair's receipt of the appeal, the Chair will assign a Board member or alternate who is a faculty member or administrator to investigate the appeal and notify the party named that an appeal has been filed. Notification will include a copy of the appeal and the identity of the student who filed the appeal. The party whose action or decision is being appealed will be requested to respond in writing within ten calendar days from the date of notification. To protect both the student and the named party CAB appeals will be treated with the greatest degree of confidentiality possible.

F. Investigation of Appeals

As soon as practicable following appointment, the investigator will interview the student who filed the appeal. The student may have an advisor or legal counsel (at their own expense) present at meetings with the investigator. However, the advisor or counsel may not stand in place of the student or otherwise participate in the investigation process. In the case of an appeal where student rights are claimed to have been violated, within seven calendar days following completion of the interview with the student, the investigator will notify the Chair as to whether or not the allegations set forth in the appeal, if substantiated, would constitute a violation of established rights. If the investigator's notification indicates such allegations, if substantiated, would not constitute a violation of established rights, the Chair may dismiss the appeal, and the decision shall be final. The Chair shall provide the student and named party with written notice of such dismissal. In all other cases, the investigator will conduct a thorough fact-finding investigation, and will meet separately with the student and named party, interview pertinent witnesses, and review relevant documents regarding the appeal. The investigation shall be completed within twenty calendar days following the assignment of the appeal to the investigator. Within seven

calendar days following conclusion of the investigation, the investigator will prepare and deliver a report to the Chair, the student filing the appeal, and the named party. The report will include a finding based upon a preponderance of evidence that the appeal shall be upheld or denied. The 'preponderance of evidence' standard requires that the evidence supporting the finding is more convincing than the evidence offered in opposition to it. The report will include the basis upon which the investigator reached the finding and recommendation for remedy, if any.

G. Determination

Within ten calendar days of receipt of the investigator's report, the Chair will convene a meeting of the CAB hearing panel. The student and the named party will be notified of the date, time, and location of the meeting. Prior to the meeting the student, named party, and panel members shall be furnished with a copy of the investigator's report and copies of the appeal and response. The student may have an advisor or legal counsel (at their own expense) present at the meeting. However, the advisor or counsel may not stand in place of the student or otherwise participate in the hearing process. At the meeting the panel will be afforded the opportunity to ask questions of the investigator. The student who filed the appeal and the named party will be afforded the opportunity to make a brief statement to the panel, after which the panel members may ask questions. The panel shall meet separately with the student and the named party. Within seven calendar days following the final meeting with the panel, the Chair shall render the written recommendation of the hearing panel and include a brief explanation of the recommendation setting forth the findings upon which the recommendation is based. The Chair shall furnish copies of the recommendation to the Chancellor, the student who filed the appeal, the party whose decision is being appealed, and to others within IPFW with a need to know as determined by the panel. The Chancellor shall render a written and final decision within ten calendar days of receiving the panel's recommendation.

Part VI. Policy on Involuntary Withdrawal of Students

Preamble Subject to IPFW's duties under applicable law and if a student poses a direct threat to the health or safety of self or other persons, or substantially disrupts the normal activities of IPFW, the student may be asked to withdraw voluntarily or may be administratively withdrawn involuntarily from IPFW.

A. Review and Hearing Procedures

1. The dean of students shall determine in each individual case whether it shall be handled through this policy or through regular student disciplinary procedures.

2. A student may be requested in writing and/or orally (depending upon the situation) to attend a meeting with the dean of students for the purpose of determining whether or not the student should be permitted to continue his/her enrollment. Such a request will include a statement of the reasons for IPFW concern. Parents, spouses, or other appropriate persons (e.g., faculty, counselors, psychologists, etc.) may be contacted either by the student or by IPFW for information and may, with the consent of the student, participate in the meeting. At the meeting the reasons for IPFW's concern regarding the student will be stated, and the student will be given an opportunity to respond to these concerns. If after the meeting the dean determines, in consultation with an IPFW personal counselor, that the student should be permitted to continue his/her enrollment, the student will be so informed in writing of the decision, including any conditions that the student must meet to continue enrollment.

3. If, after the meeting, the dean of students decides that the student should withdraw from IPFW and be permitted to re-enter IPFW only with dean of students approval, the student shall be informed of such decision and the reasons therefore. The student will be sent a written notice of the decision and reasons within 10 calendar days after the meeting. If the student agrees to withdraw from IPFW on such conditions, they will be permitted to withdraw voluntarily without grades and with full refund of current semester charges (with the exception of campus housing charges which would be pro-rated in accordance with the terms of the housing contract).

4. If the student refuses to accept the decision of withdrawal reached by the dean of students and refuses to voluntarily withdraw from IPFW, the student shall notify the dean of such refusal. The student may then appeal the withdrawal decision to a committee appointed by the chancellor of IPFW, consisting of a faculty member, a student, and an IPFW administrator, other than a member of the staff of the dean of students. The committee shall hear the entire matter again after notice to the student and the dean. The issues to be determined by the committee shall be (1) whether the student poses a direct threat to the health and safety of self or other persons or to the normal activities of IPFW, and (2) if so, whether the student should be involuntarily withdrawn from IPFW. The student and the dean and the IPFW counselor may attend the hearing and present evidence and question witnesses. They may be represented by counsel. The committee may, at its discretion, authorize an independent evaluation of the student by a licensed psychologist or psychiatrist at IPFW's expense. The committee shall make a written report containing its findings and conclusions within 10 calendar days after the hearing. Copies of the report shall be furnished to the student, the dean, and the chancellor of IPFW. The decision of the committee shall be binding upon the student and IPFW. Should the committee concur with the decision of the dean, the student will be

withdrawn without grades and with full refund of current semester charges (with the exception of campus housing charges which would be pro-rated in accordance with the terms of the housing contract).

Part VII. Authority, Application, and Amendments

A. Authority

 As provided in the Indiana University–Purdue University Fort Wayne Management and Academic Mission Agreement, "Purdue University shall be responsible for all policies related to student matters. IPFW student rights, responsibilities, and standards of conduct will be established by campus administrators in consultation with the student and faculty government organizations and with the IPFW Community Advisory Council and shall be consistent with the principles established by Purdue and Indiana universities."

B. Application

 These regulations, as from time to time amended, shall apply to all undergraduate and graduate students with either Indiana or Purdue University affiliation while enrolled at IPFW and shall be deemed a part of the terms and conditions of admission and enrollment at IPFW. In case of any conflict or inconsistencies with any other rules, regulations, directives, or policies now existing, these regulations shall govern. They shall be enforced by the chancellor of IPFW.

C. Amendments

 These regulations, and any amendments hereto, shall remain in effect until rescinded or modified by the Community Advisory Council subject to approval by the President of Purdue University. Amendments may be proposed by the Indiana-Purdue Student Government Association, IPFW Senate, administrative officials, or the Board of Trustees and shall be submitted to the Indiana-Purdue Student Government Association and IPFW Senate, for consideration and recommendation before adoption by the Community Advisory Council and approval by the President of Purdue University. In the event the Community Advisory Council adopts an amendment not approved by the Indiana-Purdue Student Government Association and IPFW Senate, either the Indiana-Purdue Student Government Association or IPFW Senate may withdraw its endorsement of the rights and responsibilities in whole or in part.

Part 9: Directory

Click on a link to be taken to the entry below.

Administration

France A. Córdova, President, Purdue University
Michael A. McRobbie, President, Indiana University
Michael A. Wartell, Chancellor, IPFW
Joanne B. Lantz, Chancellor Emerita, IPFW

General and Staff Officers

Walter J. Branson, Vice Chancellor for Financial Affairs
William J. McKinney, Vice Chancellor for Academic Affairs
George S. McClellan, Vice Chancellor for Student Affairs
Jack C. Dahl, Associate Vice Chancellor for Institutional Research and Planning
J.M. Albayyari, Associate Vice Chancellor for Research and External Support
Mark A. Franke, Associate Vice Chancellor for Enrollment Management
Kathleen L. O'Connell, Associate Vice Chancellor for Faculty Affairs
Kenneth C. Christmon, Associate Vice Chancellor for Diversity and Multicultural Affairs
Bruce Busby, Associate Vice Chancellor for Academic Success
Linda L. Ruffolo, Executive Director of Development
Irene A. Walters, Executive Director of University Relations and Communications
Steven A. Sarratore, Co-Director of the Higher Learning Commission Re-Accreditation
Mariah D. Butler, Equal Opportunity Affirmative Action Officer
Patrick A. McLaughlin, Registrar
Deborah M. Conklin, Executive Director of the Division of Continuing Studies

Academic Units

College of Arts and Sciences

Administration L. Balthaser (emerita), Blakemore (associate dean), Drummond (dean), Legg (associate dean)

Department of Anthropology Andres, Borbieva, Kline, Kuznar (director, center of excellence in decision sciences), McCullough (director of archaeological survey), Odden, A. Sandstrom (emeritus), Sutter (chair)

Department of Biology Blumenthal, W. Cooper, DeMott, Dhawale, Gillespie, Haddock, Holt (emeritus), Jordan, Kingsbury (chair and director, center for reptile & amphibian conservation & management), Lyng (emeritus), Manalis (emeritus), J. Marshall, McLellan, Mourad (graduate program director), Mustafa, Paladino, Peters, Richeson (emerita), D. Ross, Shannon, Taylor, Tobolski (emeritus), Visalli

Department of Chemistry Berger, Columbia, Cox (emeritus), Duchovic, Ericson, J. Flynn (emeritus), Friedel (emeritus), R. Friedman (chair), Kimble, Linn, Longroy (emeritus), V. Maloney, Mayo, Pacer (emeritus), Qasim, Slack (emerita), Stevenson (emeritus), Tahmassebi, Wartell

Department of Communication Banks (emerita), Bermes, Carr (graduate program director), Charlesworth, Dircksen, Dixson (chair), Godwin-Starks, Herbig, A. Hess, Kennedy-Lightsey, W. Luo, Mallin, McCants (emeritus), Nasr, B. Smith, Stillion Southard, Tankel (emeritus)

Department of Communication Sciences and Disorders Dalby, Egly, P. Flynn (emerita), L. Hess (chair)

Department of English and Linguistics Aasand (chair), Amidon, Anders, Bassett, Bischoff, J. Brennan (emeritus), Cain, Crisler, Crismore, Dehr, Devine (emeritus), Farnsworth, Felber (emerita), Fleming, L. Friedman (emeritus), Hile, Hostetter (emeritus), D. Huffman, Hume, Kalamaras, Kaufmann, Kozicki (emeritus), Lin, Minton, Moritz (emeritus), O'Hear (emeritus), R. Ramsey (emeritus), C. Roberts (emerita) , L. Roberts, Rumsey, Simon, Standley (emerita), Stapleton (graduate program director), J. Stewart, Sun, C. Thompson, van Nuis (emerita), Web-Sunderhaus, Weller, White

Department of Geosciences Argast, Chowdhury (emeritus), Dattilo, Drummond, Farlow, Gildner, Isiorho (chair), Pinan-Llamas, Sunderman (emeritus)

Gerontology Program McLorg (director)

Department of History J. Bell (emeritus), Blumenshine (emeritus), Cantor (emeritus), Erickson, Fischer (chair), Gates, Haw (emeritus), LaVere, Livschiz, Malanson, C. Scott (emeritus), Schuster, A. Violette (emeritus), R. Weiner

Department of International Language and Culture Studies Benito, Bugel, Clausen (emerita), Clegg, Conforti, Corbin (chair), Fox (emerita), Gu, Harroff (emeritus), Jehle (emeritus), R. Johnson (emeritus), Oberstar (emeritus), L. Roberts, S. Roberts, Seiler (emerita), Summers, Virtue, Zepeda

Journalism Program Colbert (coordinator)

Liberal Studies Program Kaufmann (director)

Department of Mathematical Sciences Akkari, Beineke, S. Berry, Bulmahn (emerita), Chauhan, Coffman, Conn (emerita), Coroian, Deng, Dragnev, Finco (emeritus), W. G. Frederick (emeritus), Hamburger (emeritus), Hersberger, LaMaster, Legg (chair), Lipman, Mau, Osowski, Pan, Pippert (emeritus), Redett, Svoboda (emeritus), D. Townsend, Vandell, J. Vetter, Wagner, Walsh, C. Weakley, W. Weakley (graduate program director), Zook, Zubovic

Peace and Conflict Studies Program Ashton (director)

Department of Philosophy Bruening, Buldt (chair), Butler, Dixie, Fairchild (emeritus), Long, McKinney, D. Moore, Ohlander, Schwab, Spath, Squadrito, Strayer

Department of Physics Grove, Lichti (emeritus), Littlefield (emeritus), D. Maloney, Masters (chair), Miers (emeritus), Vasquez, Wang, Zhang

Department of Political Science Bartky, Coufoudakis (emeritus), A. Downs (director of Mike Downs Center for Indiana Politics), Hannah, Houseman (emeritus), Lutz (chair), Smulkstys (emeritus), Toole, Ulmschneider, Wolf

Department of Psychology Abbott, Bendele, Blakemore, Bordens, DeFonso (emerita), DiClementi, Drouin, Fazel (emeritus), Fliotsos (emeritus), Gerow (emeritus), C. Hill, Jackson, Kaiser, Kepes (emeritus), Lantz (emerita), Lawton (chair), Lundy, D. Miller, Ross, Vartanian, Yoder, Young

Department of Sociology Ashton, Bradley, De Venanzi (graduate program director), Holland, Iadicola (chair), Nusbaumer, Overton, Shupe, Taub, Tsai (emeritus), Usman (emeritus), Yamada

Women's Studies Program Badia (director)

Richard T. Doermer School of Business and Management Sciences

Administration Byers (director of student center), O. Chang (dean), J. Moore (associate dean),

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Department of Economics Adilov, Bialik, Bullion (emeritus), Dilts (chair), Guthrie (emeritus), Haber (emeritus), Kessler, M. Kim, Rassuli, Samavati, Stumph

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(program coordinator), Marchionni (graphic designer), Mayhall (director of site based credit programs), McCrory (director of small business development center), Miarka-Grzelak (director of marketing), Schaufelberger (ACELINK program coordinator), Schott (director of enterpreneurship and corporate training), Tanner (assistant director of personal and professional development), VanGorder (director of distance learning)

General Studies Hook (director), McMurtrie (academic advisor)

School of Education

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Educational Studies Bangel, Choi, Dirkes (emerita), Hickey, Hilpert, Huffman (emerita), Isik-Ercan, Kanpol, I. Kim, Kirby (emeritus), Lee, C. Lindquist, D. Lindquist, Madden (emeritus), Merz, Murphey, J. Nichols (chair), Nowak, Phillips (emeritus), Skelton (emeritus), Swim

Professional Studies Abbott, Agness, Batagiannis, Burg (chair), Cho, Garvey, Keller (emeritus), Leatherman, Nitza, Rodriguez (emeritus), Utesch , Vesley

College of Engineering, Technology, and Computer Science

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Department of Computer and Electrical Engineering Technology and Information Systems and Technology
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Department of Computer Science Erbach (emeritus), B. Kim (graduate program director), Leeper (emeritus), D. Liu, Mansfield (emeritus), Modesitt (emeritus), Ng (chair), Petruska, Sedlmeyer, Silver (emeritus), Stanchev, Tanik, Temte, D. Thuente (emeritus), Wolfe, Yoo

Department of Engineering Abu-Mulaweh, Alhassan, Ashur, Bi, Chatterjea (emeritus), C. Chen, D. Chen, Eroglu, K. Johnson (emeritus), Kang, Y. Liu, Mahmoud (emeritus), Mauritzen (emeritus), S. Moor (first year engineering coordinator), Mueller (chair and graduate program director), Njock Libii, Oloomi, Pomalaza-Ráez, E. Thompson, Walter (director center for systems engineering), Wang, Younis

Department of Manufacturing and Construction Engineering Technology and Interior Design Albayyari, Allendorph (emeritus), Curia, Ding, Dupen, B. Franke, Fruchey, Gerdom (emeritus), Kendall (emeritus), Kubik, Leffers (director construction engineering technology program), Z. Liang, Lin (interim chair), Marshall II, McAleece (emeritus), Messal (emeritus), Narang, Pablo, Perry, Pugh, Quinn (emeritus), Rosencrans (emeritus), Schmidt (emeritus), Tryon (emeritus), Worthley (emeritus)

Division of Organizational Leadership and Supervision Abel, Bushong (emeritus), Chandler (emeritus), Clevenger, Creasser (emeritus), Groff, Harp (emerita), Hite (graduate program director), Jiang, Mansour-Cole, McDonald (chair), Montesino, Paddock-Offerle (emerita), Rickert (emerita), Sherr, Travis, Wakley (emerita)

College of Health and Human Services

Administration L. Finke (dean), Williams (academic advisor), Van De Weg (academic advisor)

Department of Consumer and Family Sciences Knight, Lolkus (director of nutrition), Niser (chair), E. Waters (emerita)

Division of Dental Education Brian (emerita), Champion (emeritus), M. Cooper, Foley, Huxoll (emerita), Kracher (chair, director of dental assisting), Leeuw, Mann, Perez, Reininger (emeritus), Ringel (director, dental laboratory technology), Schimmele (emeritus), Stuart, Valliere (director of dental hygiene), Zonakis (emeritus)

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Department of Nursing Ahrens, (graduate program director), Baresic, J. Bauman (academic advisor), Beckman, Cowen (emerita), Crill (emerita), Crosby, Dannhausen, DeKoninck, Eichenauer (emerita), Erdman (emerita), Fincher (emerita), L. Finke, Franz (emerita), Freiburger (emerita), Funck (emerita), Harges, A. Hartman, S. Hartman, B. Hill (emerita), Jensen, Kaskel, L. Meyer (undergraduate director), Miracle (academic advisor), O'Connell, Reimer, Salmon, Simpson, Sorge, Sternberger (chair), Tierney (emerita), Wade

Division of Labor Studies (IUPUI Program)

Administration Crouch (noncredit coordinator)

Library

Adkins, M. Baden, Buhr, Codispoti, Garrison, Griffin (emeritus), W. Hunsberger (emeritus), Johnson, P. Sandstrom, Skekloff, Tritt, Truesdell (dean), Violette (librarian emerita)

Division of Public and Environmental Affairs

Public and Environmental Affairs Administration

Elias, Fife (graduate program director), Grant (chair), Guthrie (emeritus), Hancock, Kanpol (director), A. Kim, Ludwin (emeritus), Mbuba, Otani, Owen (emeritus), Ziegler

School of Visual and Performing Arts

Administration O'Connor (dean), Resch (associate dean)

Department of Fine Arts Bradley (emeritus), L. Campbell, Ganz, Garcia (emeritus), Goodman (chair), Hrehov, Kruse (emeritus), Lee (emeritus), McCroskey-Hrehov, McCullogh (emeritus), Ushenko

Department of Music Ator (emeritus), Bean (chair), Bookout, Cooke, Farlow, Greider, Haritun, N. Jackson, K. Johnson, Lydy, Meyers (emeritus), Mitchell, Nicholson, Outland, Remissong, Resch, Robertson (emeritus), J. Robinson, Rutkowski, Savage, Schweikert, Severs, Tescarollo, Vernon, Wright-Bower

Department of Theatre Casazza, Coughlin, DeLancey, Humphrey, J. O'Connell (chair), O'Connor, Ridgeway, Sarratore, Zischke

Department of Visual Communication and Design J. Campbell, David-West (chair), Elaver, Gabbard, Krist (emeritus), Motz, Murray

Indiana University School of Medicine, Fort Wayne Campus

Administration F. Chang (assistant dean and director) D. Bell, Hoversland, Koritnik, Merkel, Ragatz (emeritus), Redman, Sweazey, Vilensky, Weber

Faculty and Administrative Staff

Hardin L. Aasand, Professor of English and Chair of English and Linguistics (2007) B.A., University of North Dakota, 1980; M.A., University of Toronto, 1981; Ph.D., 1986.

Bruce B. Abbott, Associate Professor of Psychology (1978) B.A., University of Toledo, 1972; M.A., Bowling Green State University, 1978; Ph.D., 1980.

Jeff H. Abbott, Assistant Professor of Education (2006) B.S., Butler University, 1971; M.S., 1973; J.D., Indiana University, 1975; Ed.S., 1982; Ph.D., Indiana State University, 1994.

Robert E. Abel, Continuing Lecturer in Organizational Leadership and Supervision (2008) B.S. Wheeling College, 1981; M.B.A., Indiana University, 1987.

Hosni Abu-Mulaweh, Professor of Mechanical Engineering (1997) A.A.S., Rockland Community College, 1982; B.S. University of Missouri, 1984; M.S., 1987; Ph.D., 1992.

Nodir Adilov, Assistant Professor of Economics (2006) B.A., Hartwick College, 2000; M.A., Cornell University, 2005; Ph.D., 2005.

Tiffin M. Adkins, Associate Librarian and Reference and Information Services Librarian (2001) B.S., Ball State University, 1988; M.A.E., 1989: M.L.S., Indiana University, 1997.

Phyllis J. Agness, Assistant Professor of Education (1988) B.S., Ball State University, 1968; M.S., 1975; Ed.D.,1980.

Susan L. Ahrens, Associate Professor of Nursing and Director of Graduate Programs (2008) B.S.N., Ohio State University, 1976; M.S.N., Medical College of Ohio, 1986; Ph.D., Wayne State University, 2001.

Safwan H. Akkari, Associate Professor of Mathematical Sciences (1988) B.S., Lebanese University, 1977; M.S., University of Tennessee, 1982; Ph.D., Louisiana State University, 1988.

Jihad M. Albayyari, Professor of Mechanical Engineering Technology and Associate Vice Chancellor for Research and External Support (2006), B.S., University of Cincinnati, 1989; M.S., 1990; Ph.D., 1995.

Laurel A. Alberson, Communication Specialist for University Relations and Communications (2007) B.S., Ball State University, 1999.

Susan M. Alderman, Media Director (2002) B.S., Northwest Missouri State University, 1976.

Mohammad A. Alhassan, Assistant Professor of Civil Engineering (2008) B.S., Jordan University of Science and Technology, 2000; M.S., 2003; Ph.D., University of Illinois, 2007.

Deborah A. Alvey, Faculty Records and Budget Administrator (2000)

Stevens R. Amidon, Associate Professor of English (2003) B.S., Regents College, 1987; M.F.A., Goddard College, 1994; Ph.D., University of Rhode Island, 2003.

Irene G. Anders, Continuing Lecturer in English and Linguistics (2000) B.A., Moscow State Linguistic University, 1973; M.A., Indiana University, 2000.

Gregory L. Anderson, Associate Director for First Year Experience (1989) B.A., Concordia College, 1972; M.S., Saint Francis College, 1983.

Christopher R. Andres, Assistant Professor of Anthropology (2006) B.A., Indiana University, 1993; M.A., Southern Illinois University, 2000; Ph.D., Indiana University, 2005.

Anne S. Argast, Professor of Geology (1985) B.S., University of Rochester, 1978; M.A., State University of New York, 1982; Ph.D., 1986.

Bruce J. Arnold, Manager, Life Science Support Service (1986) B.S., Purdue University, 1975; M.S., Texas A&M University, 1981.

Craig Arnold, Field and Laboratory Supervisor in Archaeological Survey (2007) B.A., Brigham Young University, 1992; B.A., Indiana University, 2003; M.A., University of Wyoming, 2007.

Patrick J. Ashton, Associate Professor of Sociology and Director of Peace and Conflict Studies (1979) B.A., Oakland University, 1972; M.A., Michigan State University, 1975; Ph.D., 1981.

Suleiman A. Ashur, Associate Professor of Civil Engineering (2006) B.S., An-Najah University (West Bank), 1985; M.S.E., University of Michigan, 1990; Ph.D., Arizona State University, 1994.

James D. Ator, Associate Professor Emeritus of Music B.Mus.Ed., Drake University, 1960; M.Mus., Wichita State University, 1964; D.Mus.A., North Texas State University, 1971.

Adam N. Atkinson, Network Systems Programmer (2002) A.S., International Business College, 1998.

Marla M. Baden, Associate Librarian (1999) B.A., Ohio State University, 1979; M.L.S., University of Tennessee, 1981.

William W. Baden, Senior Research Analyst, Institutional Research and Analysis (1986) A.S., Miami University, 1973; B.A., University of Toledo, 1976; M.A., University of Tennessee, 1982; Ph.D., 1987.

Janet L. Badia, Associate Professor and Director of Women's Studies (2009) B.A., Wheeling Jesuit College, 1994; M.A., The Ohio State University, 1996; Ph.D., 2000.

Armond J. Ball, Men's Volleyball Coach and Assistant to the Athletics Director (1980) B.S., Ball State University, 1967; M.A., 1971.

Linda S. Balthaser, Assistant Dean Emerita of the School of Arts and Sciences B.S., University of Indianapolis, 1961; M.S., Indiana University, 1962.

Nancy J. Bangel, Assistant Professor of Education (2007) B.S., Purdue University, 1977; M.S., 2004; Ph.D., 2007.

Barbara Jane Banks, Professor Emerita of Communication B.A., The University of South Florida, 1972; M.A., 1974; Ph.D., The Ohio State University, 1980.

Deborah Baresic, Clinical Assistant Professor of Nursing (2008) B.S.N., University of Evansville, 1975; M.S.Ed., Indiana University, 1986; Certificate Nurse Practitioner, Indiana University, 1994.

Carla R. Barrett, Supervisor, Life Science Resource Center (1983) A.A.S., Purdue University, 1982; B.S., 1983; B.S., 1990; M.S., 1998.

Debra K. Barrick, Director of Academic Internships, Cooperative Education and Service Learning (2006) A.A.S., Purdue University, 1977; B.A., Indiana University, 1980.

Robert A. Barrett, Professor of Information Systems and Enrollment Management for Engineering, Technology & Computer Science (1979) A.S., Indiana University, 1974; A.S., 1975; B.S.B., 1977; M.S.B.A., 1979.

Elliot M. Bartky, Assistant Professor of Political Science (1988) B.A., Rutgers University, 1974; M.A., 1979; Ph.D., 1983.

Troy J. Bassett, Assistant Professor of English (2007) B.S., California Institute of Technology, 1994; M.A., University of Kansas, 1996; Ph.D., 2002.

Stella C. Batagiannis, Assistant Professor of Education (2005) B.A., Valparaiso University, 1973; M.S., Indiana University, 1997; Ph.D., Indiana State University, 1984.

Lydia C. Bates, Academic Coordinator, Upward Bound (2004) A.S., Indiana University, 1999; B.S., 2001.

Joanne M. Bauman, Academic Advisor (2001) B.A., Purdue University, 2000.

Robert D. Bean, Professor and Chair of Music (2002) B.Mus.Ed., Mississippi State University, 1976; M.Mus.Ed., 1978; D.A., University of Mississippi, 1981.

James F. Beard, Director of Licensing and Advising (1996) B.S., Fort Wayne Bible College, 1988; M.A., Ball State University, 1997.

Cheri Becker, Director Leadership Fort Wayne (2009) B.S., Indiana Tech, 1994.

Sarah J. Beckman, Associate Professor of Nursing (1989) B.S.N., Ball State University, 1976; M.S.N., Indiana University, 1986.

Steven C. Beering, President Emeritus of Purdue University B.S., University of Pittsburgh, 1954; M.D., 1958.

Lowell W. Beineke, Jack W. Schrey Professor of Mathematical Sciences (1965) B.S., Purdue University, 1961; M.A., University of Michigan, 1962; Ph.D., 1965.

David R. Bell, Associate Professor of Physiology and Biophysics (1988) B.S., Michigan State University; M.S.; Ph.D., University of Alabama.

J. Tommy Bell, Director of Intercollegiate Athletics (2007) A.S., Ferrum College, 1976; B.S., Virginia Polytechnic Institute and State University, 1979; M.S., Radford University, 1987.

John P. Bell, Associate Professor Emeritus of History A.B., Tulane University, 1957; Ph.D., 1968.

Michael S. Bendele, Continuing Lecturer in Psychology (1994) B.S., St. Joseph College, 1987; M.S., Vanderbilt University, 1993; Ph.D., 1993.

Ana I. Benito, Associate Professor of Spanish (2003) Licenciatura Universidad Aotonoma, Spain, 1985; Licenciatura Universidad Alcala, Spain, 1994; M.A., Indiana University, 1997; Ph.D., 2004.

J. Daniel Bere, Assistant Men's Basketball Coach (2007) B.S., Indiana University, 2005.

Robert M. Berger, Associate Professor of Chemistry (1989) B.S., University of Notre Dame, 1981; Ph.D., Purdue University, 1988.

Michael J. Berkshire, Network Systems Administrator (2007)

Emily J. Bermes, Continuing Lecturer in Communication and Director of Basic Course (2000) B.A., Purdue University, 1998; M.A., 2000.

Sandra E. Berry, Assistant Professor of Mathematics (2006) B.A., University of Maine, 1966; M.Ed., 1972; C.A.S., 1983; Ph.D., Purdue University, 2007.

Mahmudur R. Bhuiya, Database Administrator (2003) B.A., Dhaka University; M.S.S., 1993; B.S., Purdue University, 2002; M.S., 2004.

Zhuming Bi, Assistant Professor of Mechanical Engineering (2009) B. Sci., Harbin University of Science and Technology, China, 1987; M.Sci., 1991; Ph.D., 1994; Ph.D., University of Saskatchewan, Canada, 2002.

Donna M. Bialik, Associate Professor of Economics and Dean of Students (1976) B.A., Notre Dame College, 1969; M.S.T., University of Missouri, 1973; Ph.D., 1978.

Reddi P. Bingi, Associate Professor of Management Information Systems (1995) B.Tech., S. V. University (India), 1983; M.Tech., Indian Institute of Technology, 1985; Ph.D., Texas Tech University, 1995.

Samantha S. Birk, Associate Director for Instructional Technology, Center for the Enhancement of Learning & Teaching (1988) B.A., University of Northern Ohio, 1984; M.A., Ohio University, 1988.

Shannon T. Bischoff, Assistant Professor of English and Linguistics (2010) B.A., University of Alaska, 1996; M.A., University of Montana, 2001; M.A., University of Arizona, 2005; Ph.D., 2007.

J. Elaine Blakemore, Professor of Psychology and Associate Dean, College of Arts and Sciences (1986) B.S., Western Illinois University, 1972; M.A., Northern Illinois University, 1978; Ph.D., 1978.

Gary Blumenshine, Associate Professor Emeritus of History B.A., Northwestern University, 1966; M.A., University of Illinois, 1968; Ph.D., 1973.

Elliott J. Blumenthal, Associate Professor of Biology and Faculty Athletic Representative (1989) B.A., University of Denver, 1969; M.S., 1971; M.S., University of Colorado, 1981; Ph.D., University of Denver, 1984.

Melanie S. Bookout, Associate Professor of Music (1996) B.M., Mississippi College, 1978; M.M., Northwestern University, 1980; Ph.D., Louisiana State University, 1992.

Noor O'Neill Borbieva, Assistant Professor of Anthropology (2009) B.A., Princeton University, 1996; Ph.D., Harvard University, 2007.

Kenneth S. Bordens, Professor of Psychology (1979) B.A., Fairleigh Dickinson University, 1975; M.A., University of Toledo, 1978; Ph.D., 1979.

Michael L. Boschet, Senior Network Systems Administrator (1997) A.S., Purdue University, 1998.

Earlhagi Bradley, Coordinator of ISPGA (2008) B.A., Millsaps College, 1996; M.S., Louisiana State University, 2001; M.S., 2006.

Christopher S. Bradley, Associate Professor of Sociology (2003) B.S., Northern Arizona University, 1997; M.A., Bowling Green State University, 2000; Ph.D., 2004.

Norman W. Bradley, Associate Professor Emeritus of Fine Arts B.F.A., Mexico City College, 1959; M.F.A., University of the Americas (Mexico), 1964.

Walter J. Branson, Vice Chancellor for Financial Affairs (1993) B.S., Purdue University, 1976; M.S., 1978.

John P. Brennan Jr., Associate Professor Emeritus of English B.S., Boston College, 1963; A.M., University of California, 1965; Ph.D., 1967.

Robert J. Brewer, Academic Advisor in Mastodon Advising Center (2000) B.A., Indiana University, 2002.

Jacqueline N. Brian, Professor Emerita of Dental Education Certificate, Indiana University, 1966; B.S.Ed., Temple University, 1969; M.S.Ed., Indiana University, 1972.

Harold L. Broberg, Professor of Electrical Engineering Technology and Associate Dean of Engineering, Technology, and Computer Science (1985) B.A., Northwestern University, 1963; M.S.E.E., U.S. Naval Postgraduate School, 1969; Ph.D., University of Toledo, 1993.

Ann S. Brown, Program Coordinator for Collegiate Connection and Crossroads (2002) B.A., Indiana University, 1980; M.S.A., University of Notre Dame, 1989.

William H. Bruening, Professor of Philosophy (1969) B.A., Villa Madonna College, 1965; M.A., University of Notre Dame, 1968; Ph.D., 1969; M.S.Ed., Indiana University, 1978.

Talia A. Bugel, Assistant Professor of Spanish (2006) B.A., Universidad de la Republica, Uruguay, 1987; M.A., Universidade Estadual de Campinas, 1998; Ph.D., University of Illinois, 2006.

Denise Buhr, Assistant Librarian (2008) B.A., Indiana University, 1981; M.L.S., 1982.

Bernd Buldt, Professor and Chair of Philosophy (2006) B.A., University of Bochum, 1980; 1982; Ph.D., University of Konstanz, 1991; Dir. Habil, 2003.

George W. M. Bullion, Associate Professor Emeritus of Economics B.S., University of Tennessee, 1963; M.S., 1965; Ph.D., Purdue University, 1970.

Barbara J. Bulmahn, Professor Emerita of Mathematical Sciences B.A., Valparaiso University, 1959; M.A.T., Purdue University, 1966; M.S., Ball State University, 1979.

James E. Burg, Associate Professor of Education and Chair of Professional Studies (1997) B.A., Michigan State University, 1988; M.A., 1990; Ph.D., Purdue University, 1994.

Eric T. Burns, Head Men's and Women's Tennis Coach (2001) B.A., Franklin College, 1999; M.A., Ball State University, 2003.

Karen Burtnette, Administrator, College of Arts and Sciences (2009) A.S., Ball State University, 1979.

Bruce S. Busby, Associate Vice Chancellor for Academic Success (2009) B.A., Southeastern Louisiana University, 1971; M.A., The University of Tennessee, 1973; Ph.D., 1976.

F. Lee Bushong, Professor Emeritus of Supervision B.S., Ball State University, 1943; M.S., Purdue University, 1952.

Clark W. Butler, Professor of Philosophy (1969) Certificate, Université de Tunis, Tunisia, 1965; B.A., University of Southern California, 1966; Ph.D., 1970.

Mariah D. Butler, Affirmative Action Officer, Office of Affirmative Action/Equal Opportunity (2008) B.S., Mary Washington College, 2000; J.D., University of Dayton School of Law, 2003.

Susan E. Byers, Director of Business and Management Sciences Student Center (1997) B.G.S., Ball State University, 1989; M.A., 1991.

Mary Ann Cain, Professor of English (1995) B.A., Indiana University, 1980; M.A., Colorado State University, 1984; D.A., State University of New York, 1990.

James C. Campbell, Continuing Lecturer in Visual Communication and Design (1998) A.S., Indiana University, 1991; B.F.A., 1993.

Laurel H. Campbell, Assistant Professor of Art Education (2010) B.F.A., University of Illinois, 1974; M.A., 1998; Ed.D., 2003.

Louis Cantor, Professor Emeritus of History B.S., Memphis State University, 1957; A.M., Duke University, 1961; Ph.D., 1963.

Cathleen M. Carosella, Reading and Learning Skills Coordinator for Center for Academic Support and Advancement (2005) B.A., Virginia Commonwealth University, 1990; M.A., University of York, 1992.

Colleen M. Carpenter, Project Coordinator, Indiana State Suicide Prevention Coalition (2004) B.S.B., University of Kansas, 1991; M.A., Loyola University, 1995; M.P.H., University of North Carolina, 2001.

Steven A. Carr, Associate Professor of Communication and Graduate Program Director (1994) A.B., University of North Carolina, 1986; M.A., Northwestern University, 1987; Ph.D., University of Texas, 1994.

Jeffrey Casazza, Assistant Professor of Theatre (2007) B.S., Ball State University, 1988; M.F.A. Florida State University, 1996.

Ellen L. Cavacini, Youth Program Director, Leadership Fort Wayne (1999) B.S., Ball State University, 1974; M.S., Indiana University, 1981.

Charles A. Champion, Assistant Professor Emeritus of Dental Education A.S., Southern Illinois University, 1967; B.S., 1970; M.S.Ed., Indiana University, 1981.

Joseph M. Chandler, Professor Emeritus of Organizational Leadership and Supervision B.S., Ball State University, 1956; M.A., 1962.

Fen-Lei Chang, Assistant Dean and Director of the School of Medicine, Fort Wayne, Lutheran Foundation Professor of Cardiovascular Research and Professor of Neurology (2007) Ph.D., University of Illinois, 1983; M.D., 1989.

Otto Chang, Paul E. Shaffer Professor of Accounting and Dean of the Richard T. Doermer School of Business & Management Sciences (2008) B.A., Taiwan University, 1973; M.A.S., University of Illinois, 1980; Ph.D., 1984.

Dacia Charlesworth, Associate Professor of Communication (2008) B.A., Arizona State University,1994; M.S., Southern Illinois University, 1995; Ph.D., 2001.

Amitava Chatterjea, Professor Emeritus of Electrical Engineering B.S., University of Calcutta,1953; B.S.E.E., University of Glasgow, 1957; M.S.E.E., University of Birmingham, 1959; Ph.D., North Carolina State University, 1973.

Chand K. Chauhan, Associate Professor of Mathematical Sciences (1983) B.S., St. Johns College (Agra), 1972; M.S., John Carroll University, 1974; M.S., Miami University, 1977; Ph.D., The Ohio State University, 1983.

Chao Chen, Assistant Professor of Engineering (2005) B.E., Shanghai Tiao Tong University, 1998; M.E., 2001; M.S., Georgia Institute of Technology, 2003; Ph.D., 2005.

Dong Chen, Assistant Professor of Civil Engineering (2009) B.S., Tongji University, 1992; M.S., Nanyang Technical University, Singapore, 2002;Ph.D., The Ohio State University, 2005.

Sheena Choi, Associate Professor of Education (1999) B.A., State University of New York, 1989; M.S., 1994; Ph.D., 2000.

Jeong-il Cho, Assistant Professor of Education (2009) B.A., Kwan-Dong University, Korea, 1996; M.Ed., University of North Carolina, 1999; Ph.D., The University of Iowa, 2007.

Dipak K. Chowdhury, Professor Emeritus of Geology Certificate, St. Xavier's College, 1953; B.S., Indian Institute of Technology, 1956; M.A., 1958; Ph.D., Texas A&M University, 1961.

Kenneth C. Christmon, Associate Vice Chancellor for Diversity and Multicultural Affairs (2004) B.A., Earlham College, 1988; M.A., University of Phoenix, 2003.

Dianne F. Clark, Mathematics Test Center Administrator (1999) B.S., Valparaiso University, 1971; M.A., Ball State University, 1988.

Leslie C. Clark, Director of Mastodon Academic Performance Center (2003) B.A., Lamar University, 1992; M.A., 1995.

Ronald W. Clark, Director of Internal Operations, Intramural Sports, Facility and Event Scheduling (1998) B.A., Huntington College, 1990.

Jeanette R. Clausen, Professor Emerita of Germanic Languages B.A., University of Wisconsin, 1963; M.A., Indiana University, 1966; Ph.D., 1975.

Jens H. Clegg, Assistant Professor of Spanish (2005) B.A., Brigham Young University, 1997; M.A., 2000; Ph.D., University of New Mexico, 2006.

David W. Clevenger, Academic Advisor, Organizational Leadership and Supervision (2000) A.A.S., Purdue University, 1990; B.S., Purdue University, 1995; M.S.Ed., Indiana University, 1997.

Margit Codispoti, Associate Librarian (1982) B.A., University of Akron, 1970; M.A., Illinois State University, 1972; M.L.S., Ball State University, 1982.

Carol L. Coffee, Employment Administrator, Human Resources (2009) A.S.B., Indiana University, 1993; B.S.B., 1994.

Adam N. Coffman, Associate Professor of Mathematical Sciences (1997) B.S., University of Michigan, 1991; M.S., University of Chicago, 1992; Ph.D., 1997.

Ann M. Colbert, Journalism Program Coordinator (1981) B.A., Indiana University, 1980; M.S.Ed., 1987.

Michael R. Columbia, Associate Professor of Chemistry (1993) B.S., Indiana University, 1984; Ph.D., Iowa State University, 1991.

Maria P. Conforti, Continuing Lecturer in Spanish (2001) B.A., St. Thomas Aquinas College, 1980.

Deborah M. Conklin, Executive Director of the Division of Continuing Studies (1986) B.S., Ohio University, 1970; M.S.Ed., Indiana University, 1990.

Patricia S. Conn, Professor Emerita of Mathematics B.S., Central Connecticut State College, 1956; M.S., Purdue University, 1959; Ph.D., Iowa State University, 1969.

David B. Cooke, Continuing Lecturer in Music (2005) B.M., The Ohio State University, 1986; M.M., Cleveland Institute of Music, 1988.

Todor Cooklev, Director of the Center for Wireless Communication, College of Engineering, Technology & Computer Science (2008) Diploma Engineering, Technical University of Sofia, Bulgaria, 1988; Ph.D., Tokyo Institute of Technology, Japan, 1995.

Terrence Coonan, Manager Applications System Development, Information Technology Services (2008) B.S., Purdue University, 1974.

Mary D. Cooper, Professor of Dental Education (1979) A.S., Indiana University, 1977; B.S.Ed., 1980; M.S.Ed., 1989.

William E. Cooper Jr., Professor of Biology (1991) B.A., University of Richmond, 1966; M.S., Kansas State University, 1970; Ph.D., 1972.

Laurie L. Corbin, Associate Professor of French and Chair of International Language and Culture Studies (1993) B.A., University of Wisconsin, 1982; M.A., 1985; Ph.D., 1993.

France A. Córdova, **President of Purdue University (2007)** B.A., Stanford University, 1969; Ph.D., California Institute of Technology, 1979; Honorary Doctorate, Loyola-Marymount University, 1997; Honorary Professorship, China Agricultural University, 2005.

I. Dan Coroian, Associate Professor of Mathematical Sciences (1997) B.S., Babes-Bolyai University of Cluj-Napoca, Romania, 1988; M.S., University of Bucharest, 1989; Ph.D., University of Iowa, 1997.

Rose M. Costello, Director of Human Resources (2006) A.A.S., Purdue University, 1988; B.A., 1988.

Evangelos Coufoudakis, Professor Emeritus of Political Science and Dean Emeritus of Arts and Sciences A.B., American University of Beirut, 1962; M.P.A., University of Michigan, 1963; Ph.D., 1972; Honary Degree, Indiana University, 2002.

Brittney T. Coughlin, Continuing Lecturer in Theatre (2002) B.A., Hope College, 1994.

Elaine N. Cowen, Professor Emerita of Nursing B.S.N., University of Pittsburgh, 1956; M.S., Wayne University, 1959; Ed.D., Ball State University, 1991.

David J. Cox, Professor Emeritus of Chemistry B.A., Wesleyan University, 1956; Ph.D., University of Pennsylvania, 1960.

Judith Cramer, Director of Financial Aid (2007) B.A., University of Massachusetts, 1995; M.Ed., University of Nevada, 1997.

Charles H. Creasser, Professor Emeritus of Organizational Leadership and Supervision B.S., Butler University, 1932; M.S., University of Illinois, 1933; LL.B., Indiana University, 1937.

Julie Creek, Coordinator of Programs for Women and Returning Adults (2009)

Marjorie E. Crill, Professor Emerita of Nursing Diploma, Lutheran Hospital School of Nursing, 1950; B.S., Indiana University, 1963; M.S., 1964.

Curtis Crisler, Assistant Professor of English/Creative Writing (2008) B.A., Indiana University, 1999; M.F.A., Southern Illinois University, 2004.

Avon G. Crismore, Professor of English (1985) A.B., Saint Francis College, 1965; M.S.Ed., 1967; Ph.D., University of Illinois, 1985.

Molly T. Cronin, Coordinator of Advising, School of Education (2007) B.S., Ohio University, 2003; M.S.Ed., 2005.

Carol Crosby, Clinical Assistant Professor of Nursing (2009) B.S.N, Indiana University, 1969; M.S.N., 1978.

Mark A. Crouch, Associate Professor and Coordinator of Labor Studies (1980) B.A., Emporia State University, 1972; M.A., University of Iowa, 1980.

Gerald L. Curd, Associate Director of Financial Aid (2001) B.S., Northern Arizona University (1989).

Robert G. Curia, Assistant Professor of Construction Engineering Technology (2009) A.A., El Camino College, 1981; B.S., California State University, 1982; M.S.C.E., 1983.

John C. Dahl Jr., Associate Vice Chancellor for Institutional Research (1980) B.S., Indiana University, 1970; M.S.Ed., 1972; Ed.D., 1982.

Vickie E. Dahl, Assistant Director of Financial Aid (1980) B.A., Indiana University, 1978; M.L.S., 1994.

Jonathan M. Dalby, Associate Professor of Audiology (2003) B.A., Utah State University, 1971; M.A., University of Utah, 1974; A.M., Indiana University, 1979; Ph.D., 1984.

Jane E. Dannhausen, Clinical Assistant Professor of Nursing (2004) B.S.N., Purdue University, 1977; M.A., Indiana University, 1984; M.S.N., University of Saint Francis, 2003.

Roy Danielian, Associate Director of Admissions (2009)

Benjamin F. Dattilo, Assistant Professor of Geology (2007) B.S., Brigham Young University, 1986; M.S., 1988; Ph.D., University of Cincinnati, 1994.

Philip C. Davich, Manager of Accounting Services and Coordinator of Fiscal Systems (1990) B.S.P.A., Indiana University, 1990.

Haig David-West, Professor and Chair of Visual Communication & Design (2008) B.A., Ahmadu Bello University, Nigeria, 1970; M.A., University of Wisconsin, 1971; Ph.D., New York University, 1976.

Diane J. Davis, Assistant Professor Emerita of Accounting B.S., Ball State University, 1959; M.S., Saint Francis College, 1970; C.P.A. (Indiana).

Jeffery W. Davis, Chief of Police (1996) A.S., Indiana University, 2003.

Stanley W. Davis, Professor and Chair of Accounting and Finance (2000) B.S.B.A., Tri-State University, 1972; Ph.D., The Pennsylvania State University, 1984; CPA (Indiana).

Susan M. De Chant, SIS Business Analyst (1993) A.A.S., Jackson Community College, 1981; B.A., Michigan State University, 1984; M.A., Eastern Michigan University, 1992.

Lenore E. DeFonso, Assistant Professor Emerita of Psychology B.A., The Pennsylvania State University, 1963; Ph.D., Indiana University, 1973.

Karol A. Dehr, Continuing Lecturer in English and Linguistics and Appleseed Writing Center Director (2000) B.S., Indiana University, 1982; B.A, 1982; M.A.T., 1985.

Pamela S. DeKoninck, Continuing Lecturer in Nursing (2003) BS., Purdue University, 1999; M.S.N., Ball State University, 2002.

Mark A. DeLancey, Assistant Professor of Theatre and Technical Director/Lighting and Scenic Design (2008) B.S., Texas Woman's University, 1996; M.F.A., University of Alabama, 1999.

Kim R. De Leon, SIS Business Analyst (1993) A.A.G.S., Indiana University, 2001; B.G.S., 2005.

Joseph C. DeMay, Assistant Women's Soccer Coach (2007) B.S., Youngstown State University, 2001.

William R. DeMott, Professor of Biology (1986) B.A., College of Wooster, 1970; M.S., The Ohio State University, 1976; Ph.D., Dartmouth College, 1981.

Yihao Deng, Assistant Professor of Statistics (2006) B.S., Dongbei University of Finance and Economics, China, 1998; M.S., Dalian University of Technology, China, 2001; M.S., Old Dominion University, 2004; Ph.D., 2006.

Lauren D. DenHartog, Manager of Campus Safety (1976)

Elmer D. Denman, Photographer (1980) Certificate, Ohio Institute of Photography, 1973; Certificate, New York Institute of Photography, 1973; B.A., The Ohio State University, 1977.

O. Richard Detraz, Professor Emeritus of Electrical Engineering Technology B.S.E.E., Purdue University, 1958; M.S.E.E., 1960; PE (Indiana).

Augusto De Venanzi, Professor of Sociology and Graduate Program Director (2005) B.A., University of Kent (UK), 1974; Ph.D., 1981.

Shree S. Dhawale, Associate Professor of Biology and Director of the Honors Program (1989) B.Sc., University of Nagpur (India), 1963; M.Sc., University of Saugor (India), 1965; M.S., The Ohio State University, 1981; Ph.D., 1984.

Hui Di, Assistant Professor of Finance (2008) B.A., Tianjin Foreign Studies University, 1999; M.B.A., Louisiana Tech University, 2003; D.B.A, 2008.

Jeannie D. DiClementi, Associate Professor of Psychology and Assistant Faculty Athletic Representative (2001) B.A., University of Colorado, 1984; M.A., 1986; Psy.D., University of Denver, 1993.

David A. Dilts, Professor of Labor Relations and Economics and Chair of Economics (1987) B.S., Ball State University, 1974; M.A., 1975; Ph.D., Indiana University, 1978.

Suining Ding, Associate Professor of Interior Design (2003) B.A., Southwest University, 1986; M.A., The Ohio State University, 1994.

Adam D. Dircksen, Continuing Lecturer in Communication (2000) B.A., Purdue University, 2000; M.A., 2002.

M. Ann Dirkes, Professor Emerita of Education B.S., Siena Heights College, 1955; M.A., University of Detroit, 1962; Ed.D., Wayne State University, 1974.

Quinton H. Dixie, Associate Professor of Religious Studies (2003) B.A., Michigan State University, 1989; M.A., Union Theological Seminary, 1993; Ph.D., 1999.

Collen Dixon, Business Manager for Development (2009)

Marcia D. Dixson, Chair and Associate Professor of Communication (1993) B.S., Northeast Missouri State University, 1979; M.A., 1983; Ph.D., University of Iowa, 1993.

Susan J. Domer, Marketing and Public Relations Specialist for the School of Visual and Performing Arts (1998) A.G.S., Indiana University, 1998; B.G.S., 2005.

Julie Dominguez, Assistant to the Equal Opportunity and Affirmative Action Officer (2010) B.S., Indiana University, 2009.

Carol C. Dostal, Director of Outreach Programs for Engineering, Technology, and Computer Science (2002) B.S.Ed., University of Wisconsin, 1976; M.S., Northern Illinois University, 1991.

Terrence E. Dougherty, Senior Application Developer (2001) B.S.Ed., Indiana University, 1972.

Christopher D. Douse, Assistant Director of Diversity and Multicultural Affairs (2002) B.A., Purdue University, 1997; M.A., Indiana Wesleyan University, 2001.

Andrew M. Downs, Assistant Professor of Political Science and Director of the Mike Downs Center for Indiana Politics (2002) B.A., Indiana University, 1991; M.A., Ball State University, 1992; M.P.A., Indiana University, 1993; Ph.D., University of Notre Dame, 2004.

Peter D. Dragnev, Associate Professor of Mathematical Sciences (1997) B.S., Sofia State University, Bulgaria, 1987; M.S., 1989; Ph.D., University of South Florida, 1997.

Michelle A. Drouin, Assistant Professor of Psychology (2005) B.A., Cornell University, 1996; Ph.D., University of Oxford, St. Halda's College, 2004.

Carl N. Drummond Jr., Professor of Geology and Dean, College of Arts and Sciences (1994) B.S., James Madison University, 1988; M.S., University of Michigan, 1991; Ph.D., 1994.

Catherine A. Duchovic, Associate Director of the Northeast Indiana Area Health Education Center (2006) B.A., Indiana University, 1975; A.S., Purdue University, 1982; B.S., 1987.

Ronald J. Duchovic, Associate Professor of Chemistry (1990) B.S., University of Notre Dame, 1973; M.S., University of Michigan, 1975; Ph.D., Wayne State University, 1984.

Catherine D. Dunmire, Television Production Coordinator (1985) B.A., Saint Francis College, 1977.

Barry M. Dupen, Associate Professor of Mechanical Engineering Technology (2003) B.S., University of Connecticut, 1987; M.S., 1989; Ph.D., 1994.

Mystee N. Eagleson, Research Analyst, Institutional Research and Analysis (2003) B.S., Purdue University, 2001.

Patricia A. Eber, Continuing Lecturer and Interim Chair of Human Services (1983) A.S., Purdue University, 1981; B.A., 1981; M.S.Ed., Indiana University, 2004

Sharon K. Egly, Continuing Lecturer in Communication Sciences and Disorders (2001) B.S., Purdue University, 1990; M.A.T., Indiana University, 1992.

Barbara J. Ehle, Associate Director of Center for Academic Support and Advancement, Individual Support Services (1990) B.S., Purdue University, 1967; M.A., Indiana University, 1970.

Judith A. Eichenauer, Professor Emerita of Nursing B.S., Indiana University, 1965; M.S.N., 1966.

Jean Eisaman, Project Manager, Office of Engagement (2008) B.S., Indiana Institute of Technology, 2001.

Richard Elaver, Assistant Professor of Visual Art (2006) B.S., University of Wisconsin, 2000; M.F.A., Cranbrook Academy of Art, 2005.

Jeffrey Eley, Supervisor of End-User Support, Information Technology Services (1990)

Maria Elias, Assistant Professor of Public and Environmental Affairs (2008), B.A., National University of South Argentina, 2000; M.A., The University of Akron, 2003; Ph.D., 2008.

Cynthia M. Elick, Director of Purchasing and Support Services (1981) A.A.S., Purdue University, 1986; B.S., 1993; M.L.S., Indiana University, 2000.

Norma J. Endersby, Director of Marketing for University Relations and Communications (2007) B.G.S., Indiana University, 1994.

David W. Erbach, Professor Emeritus of Computer Science B.A., University of Nebraska, 1969; Ph.D., Cambridge University, (UK), 1977.

Patricia A. Erdman, Professor Emerita of Nursing B.S.N., Ohio Dominican College, 1958; M.A., Ball State University, 1976.

Christine K. Erickson, Associate Professor of History (1999) B.A., University of Montana, 1988; M.A., 1991; Ph.D., University of California, 1999.

Karen L. Ericson, Assistant Professor of Chemistry (1998) B.S., Indiana University, 1977; B.S., Purdue University, 1990; Ph.D., The Ohio State University, 1998.

Abdullah Eroglu, Assistant Professor of Electrical Engineering (2008) B.S., University of Gaziantep, Turkey, 1996; M.S., Syracuse University, 1999; Ph.D., 2004.

Glenda K. Ervins, Coordinator for 21st Century Scholars (2005) B.A., Indiana University, 1984.

David L. Fairchild, Professor Emeritus of Philosophy B.A., Purdue University, 1968; M.A., Northwestern University, 1970; Ph.D., 1972.

James O. Farlow Jr., Professor of Geology (1982) B.A., Indiana University, 1972; M.Phil., Yale University, 1974; Ph.D., 1980.

Peggy Farlow, Continuing Lecturer in Music (2008) B.S., Ball State University, 1980; M.S., 1983; B.S., Indiana University, 1999.

Rodney Farnsworth, Professor of English (1983) B.A., University of Arkansas, 1970; M.A., Indiana University, 1975; Ph.D., 1980.

Patricia A. Farrell, Director of Research and Support Services (1983) B.G.S., Indiana University, 1985; M.L.S., 1998.

Mohammed K. Fazel, Professor Emeritus of Psychology B.A., University of Bombay, 1959; M.S., Utah State University, 1967; Ph.D., 1968.

Hanzhang Fei, Faculty Computer Specialist (2002) B.A., Shanghai International Studies University, 1983; M.A., University of Arizona, 1993.

Lynette L. Felber, Professor Emerita of English B.A. (English), Humboldt State University, 1975; B.A. (French), 1978; M.A., 1977; Ph.D., University of Wisconsin, 1987.

David Fern, Head Men's Golf Coach, Athletics (2008) B.S., Washington State University, 2007.

Brian L. Fife, Professor of Public and Environmental Affairs and Graduate Program Director (1996) B.A., University of Maine, 1985; M.A., State University of New York, 1986; Ph.D., 1990.

Dane J. Fife, Head Men's Basketball Coach (2005) B.S., Indiana University, 2002; M.A., 2005.

Norma J. Fincher, Professor Emerita of Nursing Diploma, Good Samaritan School of Nursing, 1948; B.S.N., Indiana University, 1969; M.S., Purdue University, 1974.

Arthur A. Finco, Professor Emeritus of Mathematics Education A.S., Ely Junior College, 1951; B.A., St. Cloud State University, 1953; M.A., University of Northern Iowa, 1959; Ph.D., Purdue University, 1966.

Linda M. Finke, Professor of Nursing and Dean, College of Health and Human Services (2006) B.S., Indiana University, 1966; M.S., University of Cincinnati, 1978; Ph.D., Miami University, 1985.

Bernd J. Fischer, Professor and Chair of History (1993) B.A., University of California, 1973; M.A., 1975; Ph.D., 1982.

John L. Fitzgerald, Supervisor AV Technology Services (1981) B.G.S., Indiana University, 1991.

Damian J. Fleming, Assistant Professor of English (2008) B.A., Fordham University, 1998; M.A. University of Toronto, 2000; Ph.D., 2006.

Stephanie S. Flinn, Environmental Health and Safety Manager (2007) B.S., Ball State University, 1995.

Stephen N. Florio, Assistant Women's Volleyball Coach (2003) A.A., Nassau Community College, 1995; B.S., University of Saint Francis, 1998; M.S., Dowling College, 2002.

John J. Flynn Jr., Professor Emeritus of Chemistry B.A., Western State College of Colorado, 1953; M.S., Oklahoma State University, 1955; Ph.D., Purdue University, 1961.

Pauline T. Flynn, Professor Emerita of Audiology and Speech Sciences B.A., Paterson State College, 1963; M.A., Seton Hall University, 1966; Ph.D., University of Kansas, 1970.

Elaine S. Foley, Clinical Associate Professor of Dental Education (1980) A.S., Indiana University, 1968; B.S.Ed., 1980; M.S.Ed., 1982.

P. Kay Folks, Administrative Assistant to the Chancellor (2003)

Karen M. Forbess, Immigrations and Compensation Assistant (1993)

Linda C. Fox, Associate Professor Emerita of Spanish B.A., Rutgers University, 1965; M.A., Indiana University, 1967; Ph.D., University of Wisconsin, 1974.

Bruce A. Franke, Assistant Professor of Civil Engineering Technology (1977) A.A.S., Purdue University, 1972; B.S., 1973; M.P.A., Indiana University, 1983.

Mark A. Franke, Associate Vice Chancellor for Enrollment Management (1977) B.S.B., Indiana University, 1973; M.S.B.A., 1984; M.B.A., 1991.

Alice M. Franz, Professor Emerita of Nursing B.S., Purdue University, 1975; M.S.N., Ball State University, 1980.

Michael E. Fraser, Network Systems Programmer (2005) A.S., Purdue University, 2005; B.S., 2006.

William G. Frederick, Professor Emeritus of Mathematical Sciences A.B., Indiana University, 1966; M.S., Purdue University, 1974; Ph.D., 1980.

Blix A. Fredrick, Operations Supervisor for Walb Union (1982)

Kevin R. Fredrick, LITS Systems Administrator (1998)

Wade Fredrick, Director of Community Outreach and Assistant Professor of Technology Emeritus A.B., Wabash College, 1954; M.A., Ball State University, 1958.

Opal A. Freiburger, Professor Emerita of Nursing (1990) A.A.S., Purdue University, 1972; B.S., 1977; M.A., Ball State University, 1982; Ed.D., International Graduate School (St. Louis), 1988.

Arthur W. Friedel, Professor Emeritus of Chemistry B.S., University of Pittsburgh, 1959; M.Ed., 1963; Ph.D., The Ohio State University, 1968.

Lawrence S. Friedman, Professor Emeritus of English B.A., University of Missouri, 1958; M.A., University of Michigan, 1959; Ph.D., University of Iowa, 1966.

Ronald S. Friedman, Professor and Chair of Chemistry (1991) B.S., University of Virginia, 1984; A.M., Harvard University, 1986; Ph.D., 1989.

Michael R. Fruchey, Head Cross Country/Track Coach and Continuing Lecturer in Civil and Architectural Engineering Technology (2004) B.S., Taylor University, 1991; M.A., Ball State University, 1993.

Marietta Frye, Academic Advisor, Mastodon Advising Center (2008) B.S., Higher School of Business of Tarnow, Poland, 2003; B.A., Indiana University, 2004; M.A., 2007.

Betty L. Funck, Professor Emerita of Nursing Diploma, St. Joseph School of Nursing, 1950; B.S., Indiana University, 1960; M.S., Saint Francis College, 1967.

James D. Gabbard, Continuing Lecturer in Visual Communication and Design (2006) B.A., Indiana University, 1985.

Christopher M. Ganz, Associate Professor of Visual Arts (2002) B.F.A., University of Missouri, 1995; M.F.A., Indiana University, 2001.

Hector Garcia, Professor Emeritus of Fine Arts B.F.A., Herron School of Art, 1957; M.F.A., Indiana University, 1966.

Judith S. Garrison, Assistant Librarian (2004) B.S., Indiana University, 2002; M.L.S., 2003.

Sara Garcia, Director of Student Housing (2006) B.A., Northern Illinois University, 1999; M.S.Ed., University of Nebraska, 2001.

F. Patrick Garvey, Clinical Assistant Professor of Education (2002) M.A., Butler University, 1969; M.S., 1970; Ed.D., Ball State University, 1981.

Benton E. Gates III, Continuing Lecturer in History (2000) B.A., College of William and Mary, 1979; M.A., University of Tennessee, 1989; Ph.D., 1997.

Harry W. Gates, Professor Emeritus of Electrical Engineering Technology B.S., University of New Mexico, 1948; M.S.E.E., 1949.

Karen L. Geary, Senior Programmer Analyst (1996) A.A.S., Purdue University, 1993; B.S., 1997.

Daniel L. Gebhart, Comptroller (2006) B.S., Indiana University, 1978; M.B.A., 1989.

Steven K. George, Business Manager for Physical Plant (2007) B.S., Indiana University; M.B.A., 2005.

Henry F. Gerdom, Professor Emeritus of Manufacturing Technology B.S., Purdue University, 1951; M.S., 1953.

William M. Gernon II, Head Men's Baseball Coach and Assistant to the Athletic Director (1996) A.A., Indiana University, 1991; B.G.S., 1991; B.S.Ed, 1998.

Joshua R. Gerow, Professor Emeritus of Psychology B.A., University of Buffalo, 1963; Ph.D., University of Tennessee, 1967.

Helen E. Gibbons, Associate Professor Emerita of Business Administration B.S., Villa Maria College, 1951; M.Ed., University of Pittsburgh, 1954; Ed.D., Indiana University, 1960.

Raymond F. Gildner, Continuing Lecturer in Geosciences (2008) B.S., University of Minnesota, 1981; Ph.D., Cornell University, 1990.

Robert B. Gillespie, Associate Professor of Biology (1991) B.S., Stockton State University, 1976; M.S., University of Akron, 1981; Ph.D., The Ohio State University, 1985.

Deborah A. Godwin-Starks, Continuing Lecturer in Communication (2003) B.A., Purdue University, 1987; M.B.A., Indiana Wesleyan University, 1990.

Gerad Good, Second Assistant Basketball Coach (2007) B.S., Manchester College, 1995.

Dana A. Goodman, Associate Professor of Visual Arts and Chair of Fine Arts (1997) A.A., Indiana Hills College, 1985; B.F.A., University of Iowa, 1988; M.B.A., Indiana Wesleyan University, 1990; M.F.A., Ohio University, 1991; M.A., 1991.

Scot Goskowicz, Business Advisor, Northeast Indiana Small Business Development Center (2008) B.A., Wesleyan University, 1999.

Katrina L. Grady, Benefits Administrator (2004) B.S., Indiana Institute of Technology, 2004.

Jane A. Grant, Professor and Chair of Public and Environmental Affairs (1984) B.A., Brooklyn College, 1971; M.A., University of California, 1973; Ph.D., 1981.

Jennifer K. Green, Assistant Women's Basketball Coach (2006) B.S., Purdue University, 2006.

Angela R. Gregg, Project Director of Upward Bound (2003) B.S.C., Purdue University, 1995; M.B.A., Indiana Institute of Technology, 2002.

Cynthia S. Greider, Continuing Lecturer in Music (2007) B.M., Indiana University,1982; M.M., Cleveland Institute of Music, 1986; A.D., 1988.

Larry W. Griffin, Associate Librarian Emeritus B.A., University of Evansville, 1964; M.A., University of Kentucky, 1965; M.L.S., Indiana University, 1970.

Brenda H. Groff, Continuing Lecturer in Organizational Leadership and Supervision (1989) A.A.S., The Ohio State University, 1982; B.S., Bowling Green State University, 1985; M.Ed., 1988; M.S., Purdue University, 2003.

Katherine Grote, Environmental Health & Safety Specialist, Radiological and Environmental Management (2008) B.S., Purdue University, 2007.

Timothy T. Grove, Associate Professor of Physics (1998) B.S., Lehigh University, 1986; M.S., University of Connecticut, 1988; Ph.D., 1994.

Xian Chen Gu, Continuing Lecturer in Chinese (2009) M.A., Shanghai Normal University, China, 1993.

Cigdem Z. Gurgur, Assistant Professor of Management (2009) B.S., Middle East Technical University, Turkey, 1994; M.S., Warwick Business School, England, 1995; M.S., Rutgers University, 2001; Ph.D., 2002.

Thomas L. Guthrie, Associate Professor Emeritus of Public and Environmental Affairs B.S., Purdue University, 1962; M.S., 1966; Ph.D., 1970.

Frank C. Guzik, Associate Director of Admissions (1997) B.S., Quincy University, 1974.

Lawrence J. Haber, Associate Professor Emeritus of Economics B.A., St. Joseph's College, 1970; Ph.D., University of North Carolina, 1975.

Iskandar Hack, Associate Professor of Electrical Engineering Technology (1982) Certificate, Indiana Vocational Technical College, 1980; A.A.S., Purdue University, 1982; B.S., 1984; M.S.E., 1989.

James D. Haddock, Associate Professor of Biology (1972) B.S., Arizona State University, 1965; Ph.D., University of California, 1970.

Peter Hamburger, Professor Emeritus of Mathematical Sciences M.S., Eotros Lorand University (Hungary), 1968; Ph.D., 1971.

Barry W. Hancock, Professor of Public and Environmental Affairs (2003) B.S., Oklahoma State University, 1977; M.S., 1980; Ph.D., 1982.

Steven A. Hanke, Assistant Professor of Accounting (2008) B.B.A., University of Wisconsin, 2001; M.P.A., 2002; D.B.A., Louisiana Tech University, 2008.

Susan B. Hannah, Professor of Political Science (1998) B.A., Agnes Scott College, 1964; M.A.T., Harvard University, 1966; Ph.D., Michigan State University, 1972.

Sanna L. Harges, Associate Professor of Nursing (1979) B.S.N., Purdue University, 1979; M.A., Ball State University, 1981.

Rosalie A. Haritun, Associate Professor of Music (1988) B.Mus.Ed., Baldwin-Wallace Conservatory, 1960; M.S., University of Illinois, 1961; Ed.D., Columbia University, 1968.

Marilyn D. Harp, Associate Professor Emerita of Office Administration B.S., Taylor University, 1960; M.S., Indiana University, 1963.

Michael L. Harper, Assistant Men and Women's Soccer Coach (1998) B.G.S., Indiana University, 1998.

H. Jay Harris, Director of Physical Plant (2007) B.S., Purdue University, 1971.

Stephen C. Harroff, Professor Emeritus of Germanic Languages A.B., Manchester College, 1964; M.A., Indiana University, 1966; Ph.D., 1972.

Kelley J. Hartley, Head Women's Volleyball Coach and Senior Woman Administrator (1999) B.A., University of Toledo, 1991; B.S., Bowling Green State University, 1993.

Amy J. Hartman, Nursing Practitioner Clinic Director Family Health Clinic, Health and Human Services (2008) B.S., Ball State University, 1998; M.S., Indiana Wesleyan University, 2004.

Sally J. Hartman, Clinical Assistant Professor of Nursing (1998) A.D.N., Purdue University, 1973; B.S.N., 1985; M.S.N., Indiana University, 1997.

Marvin C. Haugk, Senior Programmer Analyst (2001) A.S., Indiana Vocational Technical College, 1985.

James A. Haw, Professor Emeritus of History B.A., Louisiana State University, 1967; Ph.D., University of Virginia, 1972.

Dane Hawley, Editorial Assistant (2006) A.S., Vincennes University, 1992; B.S.Ed., Northern Arizona University, 1995; A.S., Vincennes University, 2004.

Robert W. Hawley, Professor Emeritus of Mental Health Technology B.S., College of William and Mary, 1953; M.S.W., Our Lady of the Lake College, 1960.

Bradley K. Heath, Superintendent of Building Services (2007) B.S., Indiana University, 1982.

Luann Heath, Buyer, Purchasing and Support Services (2005) B.S., Brigham Young University, 1976; B.B.A., Kennesaw State University, 1986.

Timothy P. Heffron, Associate Athletic Director/Business Administrator (1993) B.A., Purdue University, 1991.

James H. Henderson, Superintendent of Operations and Maintenance (1981) A.A.S., Purdue University, 1990.

Arthur W. Herbig, Instructor in Media Production (2010) B.A., Loyola Marymount University, 2000; M.A., Saint Louis University, 2004.

Maria L. Herrera, Assistant Director of Admissions (2007) B.A., DePauw University, 2004.

James R. Hersberger, Professor of Mathematical Sciences (1981) A.B., Earlham College, 1975; M.S., Purdue University, 1977; Ph.D., 1983.

Aaron R. Hess, Assistant Professor of Rhetoric (2010) B.A., California State University, 2001; M.A., 2003; Ph.D., Arizona State University, 2008.

Jennifer L. Hess, Operations Assistant, Accounting Services (2006) A.S.A.B., Indiana Institute of Technology, 2000.

Lucille J. Hess, Associate Professor and Chair of Communication Sciences and Disorders (1979) B.S., Western Michigan University, 1966; M.A., 1968; Ph.D., Indiana University, 1984.

M. Gail Hickey, Professor of Education (1988) B.S., Lee College, 1978; M.S., University of Tennessee, 1983; Ed.D., 1986.

Rachel E. Hile, Assistant Professor of English (2006) B.A., University of Kansas, 1993; M.A., 1995; Ph.D., 2004.

Barbara A. Hill, Professor Emerita of Nursing Diploma, Indianapolis Methodist Hospital School of Nursing, 1954; B.S., Indiana University, 1959; M.S., Purdue University, 1974; Ed.D., Ball State University, 1982; M.A., Ball State University, 1987.

Craig A. Hill, Professor of Psychology (1991) A.A., Hutchinson Community Junior College, 1974; B.A., University of Kansas, 1976; Ph.D., University of Texas, 1984.

Richard E. Hill, Associate Professor Emeritus of Business Administration A.B., Indiana University, 1955; M.B.A., 1956; Ph.D., Purdue University, 1970.

Cheryl S. Hine, Associate Registrar (2006) B.S., Purdue University, 1974; D.C., Southern California University of Health Sciences, 1987.

Jonathon Hilpert, Assistant Professor of Education (2008) B.A., Pepperdine University, 2000; M.A., Arizona State University, 2007; Ph.D., 2008.

Linda M. Hite, Professor of Organizational Leadership and Supervision and Graduate Program Director (1990) B.A., Mount Union College, 1974; M.Ed., Kent State University, 1976; Ed.S., 1976; Ph.D., Purdue University, 1983.

Kellie L. Hockemeyer, Web/Data Specialist for the Division of Continuing Studies (2007) B.A., Purdue University, 2001.

Sherrill M. Hockemeyer, Associate Professor Emerita of Business Administration B.S., Indiana University, 1960; M.S., Indiana State University, 1967.

Alison K. Hoff, Academic Advisor in Mastodon Advising Center and Coordinator for National Student Exchange (2001) B.S., Indiana University, 1995; M.A., Ball State University, 1998.

Donna D. Holland, Assistant Professor of Sociology (2003) B.A., Ohio Northern University, 1988; M.A., University of Toledo, 1999; Ph.D., Bowling Green State University, 2005.

Elvis J. Holt, Professor Emeritus of Biology A.S., Dixie Junior College, 1957; B.S., Brigham Young University, 1961; M.S., 1964; Ph.D., Purdue University, 1969.

Julie Fellers Hook, Director of General Studies (1979) B.S.Ed., Drake University, 1976; M.S.Ed., 1977; Ed.D., Indiana University, 1990.

Jennifer Horrom, Buyer and Property Management Administrator, Purchasing and Support Services (2008) A.A.S., Purdue University, 1996; B.S., 1997.

Gerald L. Houseman, Professor Emeritus of Political Science B.A., California State University, 1965; M.A., 1967; Ph.D., University of Illinois, 1971.

John Hrehov, Professor of Fine Arts (1989) B.F.A., Cleveland Institute of Art, 1981; M.F.A., University of Illinois, 1985.

Garien Hudson, Assistant Director for Multicultural Outreach and Recruitment in Admissions (2009)

Debrah L. Huffman, Associate Professor of English (2006) B.A., University of Missouri, 1989; M.A., 1999, Ph.D, Purdue University, 2007.

Maxine M. Huffman, Associate Professor Emerita of Education B.S., Saint Francis College, 1962; M.S., 1966; Ed.D., Ball State University, 1971.

Beverly A. Hume, Associate Professor of English (1987) A.A., Shasta College, 1971; B.A., California State University, 1973; M.A., 1975; Ph.D., University of California, 1983.

Craig A. Humphrey, Associate Professor of Theatre (1991) B.F.A., Indiana University of Pennsylvania, 1983; M.F.A., University of Massachusetts, 1987.

Willard D. Hunsberger, Librarian Emeritus A.B., Goshen College, 1950; M.Ed., Temple University, 1955; A.M., Florida State University, 1959.

Gloria H. Huxoll, Assistant Professor Emerita of Dental Auxiliary Education Certificate, Indiana University, 1952; B.S.Ed., 1974.

Peter Iadicola, Professor and Chair of Sociology (1979) B.A., St. John's University, 1974; M.A., University of California, 1976; Ph.D., 1979.

Carol B. Isaacs, Director of Admissions (1981) B.A., Huntington College, 1971; M.S.Ed., Indiana University, 1984.

Beth Iserman, Assistant Director of Distance Learning for the Division of Continuing Studies (2010) B.A., University of Chicago, 1996; M.F.A., Pratt Institute, 2000; M.B.A., Keller Graduate School of Management, 2009.

Edna O. Isiorho, K-12 Outreach Coordinator, Northeast Indiana Area Health Education Center, Health and Human Services (2007) B.A., Notre Dame College of Ohio, 1984; M.S.Ed., Indiana University, 1996; B.S., University of Saint Francis, 1998; M.S.N., 2006.

Solomon A. Isiorho, Professor and Chair of Geosciences (1987) B.Sc., University of Benin (Nigeria), 1977; M.S., University of Michigan, 1982; Ph.D., Case Western Reserve University, 1987.

Daysha T. Jackson, First Year Experience Program Coordinator (2005) B.S., Purdue University, 2005.

Diana L. Jackson, Senior Business Manager - Comptroller (1988) B.S., Purdue University, 1983.

Jay W. Jackson, Associate Professor of Psychology (1998) B.S., Purdue University, 1989; Ph.D., 1995.

Nancy A. Jackson, Assistant Professor of Music and Director of Music Therapy (2005) B.F.A., University of Wisconsin, 1992; M.M.T., Temple University, 2004.

Kenneth X. Jaeger, Web Developer (2004) A.A.S., Joliet Junior College, 1994; B.S., University of Saint Francis, 1996.

Anthony M. Jasick, Assistant Men's Basketball Coach (2005) A.A.S., Muskegon Community College, 1998; B.S., Mars Hill College, 2000; M.Ed., Lincoln Memorial University, 2002.

Fred F. Jehle, Professor Emeritus of Spanish B.A., St. Benedict's College, 1962; M.A., Catholic University of America, 1969; Ph.D., 1970.

Rebecca S. Jensen, Assistant Professor of Nursing and Director of Simulation and Research (2001) B.S., Purdue University, 1992; M.S., 1999.

Yuan Jiang, Assistant Professor of Organizational Leadership and Supervision (2009) B.A., Sun Yat-Son University, China, 1996; M.A., 2001; M.S., Rutgers University, 2006; Ph.D., 2009.

Kenneth R. Johnson, Professor Emeritus of Mechanical Engineering B.S.M.E., Duke University, 1952; M.S.M.E., Northwestern University, 1960; Ph.D., University of Illinois, 1971.

Kenneth W. Johnson, Continuing Lecturer in Music (2007) B.M., Berklee College of Music, 1975; M.A., University of Denver, 1981; D.M.A., University of Colorado, 1999.

Richard L. Johnson, Professor Emeritus of Germanic Languages B.A., University of Kansas, 1964; Ph.D., Harvard University, 1968.

Shannon Johnson, Assistant Librarian Reference and Information Services (2009) B.A., Indiana University, 2004; M.L.S., 2006.

Margaret L. Jones, Assistant Director of Behavioral Health (2006) A.A.S., Purdue University, 1972; A.A.S., 1978; B.A., Indiana University, 1986; M.S.W., 1988.

Rhonda R. Jones, Clinic Nurse, Family Health Clinic, Health and Human Services (2007) A.S.N., University of Saint Francis, 2002; B.S.N., Indiana Wesleyan University, 2006.

Janet S. Jordan, Director of the Curriculum Laboratory (1975) B.A., Boston University, 1968; M.S., Florida State University, 1972.

Mark A. Jordan, Associate Professor of Biology (2003) B.A., Luther College, 1992; M.S., University of New Mexico, 1994; Ph.D., 1999.

Gregory D. Justice, Construction Project Manager (1993) B.L.A., Ball State University, 1991.

Daren H. Kaiser, Associate Professor of Psychology (2003) B.S., Western Illinois University, 1991; M.A., University of Kentucky, 1994; Ph.D., 2000.

George W. Kalamaras, Professor of English (1990) B.S.B., Indiana University, 1980; M.A., Colorado State University, 1982; Ph.D., State University of New York, 1990.

Bongsu Kang, Associate Professor of Mechanical Engineering (2000) B.S., Yonsei University, Seoul, Korea, 1988; M.S., Wayne State University, 1996; Ph.D., 2000.

Barry Kanpol, Professor of Education, Dean, School of Education and Director, Division of Public and Environmental Affairs (2003) B.A., Tel Aviv University, 1981; M.A., The Ohio State University, 1984; Ph.D., 1987.

Gokhan M. Karaatli, Assistant Professor of Marketing (2006) B.S., Uludag University, Turkey, 1992; M.B.A., Fairleigh Dickinson University, 1996; Ph.D., Rensselaer Polytechnic Institute, 2002.

Ahmad R. Karim, Professor of Business (1985) B.A., University of Dhaka, 1970; M.B.A., Armstrong College, 1974; Ph.D., University of Iowa, 1981.

Beth L. Kaskel, Associate Professor of Nursing (2006) B.S., Marietta College, 1987; N.D., Case Western Reserve University, 1990.

Kent Kauffman, Assistant Professor of Business Law (2009) B.A., Temple University, 1985; J.D., The Dickinson School of Law, 1992.

Michael E. Kaufmann, Associate Professor of English and Director of Liberal Studies (1987) B.A., Southern Illinois University, 1979; A.M., University of Illinois, 1981; Ph.D., 1986.

John Kaufeld, Online Marketing Specialist, University Relations and Communications (2009) B.S., Ball State University, 1985.

Susan J. Keck, Assistant Director of CASA for Technical Support and Assessment (2003) B.A., Concordia Teacher's College, 1973; M.S., Indiana University, 1978.

Kenneth L. Keller, Associate Professor Emeritus of Education B.P.E., Purdue University, 1950; B.S., The Pennsylvania State University, 1954; M.S., Butler University, 1959; Ph.D., Purdue University, 1966.

Michael G. Kelly, Director of Personal and Professional Development for the Division of Continuing Studies (1993) A.B.Ed., University of Michigan, 1993; M.B.A., University of Saint Francis, 2005.

Robert C. Kendall, Professor Emeritus of Construction Technology B.S.C.E., Purdue University, 1947; PE (Indiana, Wisconsin)

Carrie D. Kennedy-Lightsey, **Assistant Professor of Communication (2009)** B.A., St. Edward's University, 2004; M.A., Texas State University, 2005; Ph.D., West Virginia University, 2009.

Sherwin Y. Kepes, Professor Emeritus of Psychology B.A., Wayne State University, 1960; M.A., 1962; Ph.D., Michigan State University, 1965.

John R. Kessler, Continuing Lecturer in Economics (2006) B.A., Arizona State University, 2000; M.A., University of Delaware, 2007.

Joseph N. Khamalah, Associate Professor and Chair of Management and Marketing and Graduate Program Director (1999) B.Com., University of Nairobi, 1983; M.B.A., 1985; M.A.S.C., University of Waterloo, Canada, 1993; Ph.D., 1997.

Steve C. Kiebel, Broadcast Engineer and Production Assistant (1987) A.A.S., Valparaiso University, 1969.

Jennifer J. Kieffer, Wellness Program Assistant (2003) B.S., Purdue University, 2002.

Ae-Sook Kim, Assistant Professor of Public and Environmental Affairs (2010) B.P.A., University of Seoul, Korea, 2000; M.P.A., 2002; Ph.D., University of Kentucky, 2009

Beomjin Kim, Associate Professor of Computer Science (1999) B.S., Inha University, Korea, 1988; M.S., Illinois Institute of Technology, 1989; Ph.D., 1998.

Il-Hee Kim, Assistant Professor of Education (2007) B.A., Yonsei University, Korea, 1994; M.A., Seoul National University, Korea, 1997; M.A., University of Illinois, 2001; Ph.D., 2008.

Myeong Hwan Kim, Assistant Professor of Economics (2008) B.A., Konkuk University, Korea, 1993; M.A., 1997; M.A., Ohio University, 2000; Ph.D., Claremont Graduate University, 2006.

Margaret G. Kimble, Instructor in Chemistry (1988) B.S., Purdue University, 1973.

Billy King, Head Men's Golf Coach, Athletics (2009)

Bruce A. Kingsbury, Professor and Chair of Biology and Director, Center for Reptile and Amphibian Conservation and Management (1992) B.A., Pomona College, 1981; M.S., San Diego State University, 1987; Ph.D., University of California, 1991.

Roxanne Kingsbury, Program Coordinator for the Division of Continuing Studies (2006) A.S., Indiana University, 1985; B.G.S., 2001

Jack R. Kirby, Associate Professor Emeritus of Education B.Ed., Chicago Teachers College, 1951; M.Ed., DePaul University, 1964; A.M., 1969; Ph.D., University of Illinois, 1969.

Barbara L. Kirkwood, Associate Director of CASA for Group Support Services (1999) A.A., San Bernardino Valley College, 1972; B.A., Brigham Young University, 1974; M.A., George Washington University, 1991.

David Kistler, Manager of Information Technology Infrastructure Services, Information Technology Services (2008) A.A.S., Purdue University, 1984.

Douglas A. Kline, Continuing Lecturer in Anthropology (2007) B.A., Purdue University, 1990; M.A., Ball State University, 1996; Ph.D., University of Edinburgh, 2003.

John B. Knight, Professor of Consumer and Family Sciences (1992) B.A., Michigan State University, 1972; M.B.A., University of Toledo, 1974; Ed.D., University of Massachusetts, 1984.

Robert M. Kostrubanic, Director of Information Technology Services (1998) B.S., Case Western University, 1964; M.S., 1966.

Henry Kozicki, Professor Emeritus of English B.A., Wayne State University, 1962; M.A., 1963; Ph.D., 1969.

Connie L. Kracher, Associate Professor and Chair of Dental Education and Director of Dental Assisting (1993) Certificate, Indiana University, 1992; B.S.Ed., 1993; M.S.D., 1999; Ph.D., Lynn University, 2009.

Dennis L. Krist, Assistant Professor Emeritus of Visual Arts B.F.A., University of Notre Dame, 1965.

Stephanie A. Kromer, Education Specialist (2007) B.S., Huntington College, 1999; M.S., Indiana Wesleyan University, 2004.

Donald S. Kruse, Associate Professor Emeritus of Fine Arts B.S.Ed., Indiana University, 1957.

Matthew Kubik, Associate Professor of Interior Design (1983) B.A., University of Notre Dame, 1973; B.Ar., 1975; Graduate Diploma in Architecture, Architectural Association Graduate School (London), 1977.

Christine L. Kuznar, Associate Director of Mastodon Academic Performance Center (1991) B.S., Pennsylvania State University, 1986; M.S., 1988.

Lawrence A. Kuznar, Professor of Anthropology and Director of Decision Sciences and Theory Institute (1990) B.A., Pennsylvania State University, 1984; M.A. Northwestern University, 1985; M.S., 1990; Ph.D., 1990.

Carolyn J. Ladd, Compensation and Employment Manager (1987) B.A., Purdue University, 1982; A.A.S., 1983; M.S.Ed., Indiana University, 1993.

John G. LaMaster, Senior Instructor in Mathematical Sciences (1990) B.S., Purdue University, 1986; M.S., 1992.

Joanne B. Lantz, Professor Emerita of Psychological Sciences and Chancellor Emerita of IPFW B.S., University of Indianapolis, 1953; M.S., Indiana University, 1957; Ph.D., Michigan State University, 1969; Honorary Degree, Purdue University, 1994.

Suzanne M. LaVere, Assistant Professor of History (2008) B.A., College of William & Mary, 2002; M.A., Northwestern University, 2003; Ph.D., 2009.

Thomas S. Laverghetta, Professor of Electrical Engineering Technology (1983) A.A.S., Mohawk Valley Community College, 1965; B.S.E.E., Syracuse University, 1971; M.S.E.E., Purdue University, 1991.

Carol A. Lawton, Professor and Chair of Psychology (1984) B.A., Bryn Mawr College, 1978; M.A., University of California, 1979; Ph.D., 1983.

Jane M. Leatherman, Associate Professor of Education (2004) B.S., University of Greensboro, 1984; M.Ed., 1986; Ph.D., 1999.

Thomas S. Lecy, Supervisor of Printing Services (1999) A.S., Brooks Institute of Photography, 1973.

Chantelle Lee, Residence Director of Student Housing (2006) B.S., Winona State University, 2004.

Cheu-jey G. Lee, Assistant Professor of Education (2007) B.B.A., University of Mississippi, 1995; M.S., University of Wisconsin, 1997; Ph.D., Indiana University, 2007.

Robert R. Leeper, Professor Emeritus of Computer Science B.S., The Ohio State University, 1950; M.B.S., University of Colorado, 1960.

Wilhemina R. Leeuw, Clinical Assistant Professor of Dental Education (1995) Certificate, Indiana University, 1985; A.S., Purdue University, 1999; B.S., 2005.

Mary Regina Leffers, Professional Associate Professor of Construction and Director of Construction Engineering Technology (2006) B.A., Purdue University, 1984; Ph.D., 1997.

David A. Legg, Professor and Chair of Mathematical Sciences, and Associate Dean of the College of Arts and Sciences (1974) B.S., Purdue University, 1969; M.S., 1970; Ph.D., 1973.

Mary E. Lehto, Assistant Director, Mastodon Advising Center (1986) B.S., Indiana University, 1988; M.S.Ed., 1999.

Stephanie M. Lehto, Assistant Director of Testing Services (2005) B.S., Purdue University, 1998.

Nancy J. Leinbach, Associate Registrar (1999) B.S., Purdue University, 1978; M.P.A., Indiana University, 2008.

Susan K. Leist, Business Manager, Division of Continuing Studies (2006) A.S., International Business College, 1974.

Edwin C. Leonard Jr., Professor Emeritus of Business Administration B.S., Purdue University, 1962; M.S., 1966; Ph.D., 1970.

Lyman Lewis, Assistant to the Director of the MBA Program and Assistant to the Dean for External Affairs, Richard T. Doermer School of Business and Management Sciences (2004) B.S.E.E., Howard University, 1970; M.B.A., Rutgers University, 1977.

Zhongming Liang, Associate Professor of Mechanical Engineering Technology (1987) B.S., South China Institute of Technology, 1966; M.E., Huazhong Institute of Technology, 1981; M.E., City College of New York, 1982.

Jurgen J. Lichti, Professor Emeritus of Physics B.A., Upland College, 1950; M.S., Purdue University, 1964.

Lidan Lin, Professor of English (2001), B.A., Southwest-China Normal University, 1982; M.A., 1989; M.Ed., University of Exeter, 1992; Ph.D., University of North Texas, 1998.

Paul I-Hai Lin, Professor of Electrical and Computer Engineering Technology and Interim Chair of Manufacturing and Construction Engineering Technology and Interior Design (1985) B.S.E.E., National Taipei Institute of Technology, 1971; M.S.E.E., Syracuse University, 1984; M.S.C.S., Marist College, 1985.

Carolyn Lindquist, Clinical Assistant Professor of Education (2009) B.A., Manchester College, 1972; M.A., University of Iowa, 1980; Ed.D., Ball State University, 2000.

David H. Lindquist, Associate Professor of Education (2004) B.S., Indiana University, 1970; M.S.Ed., 1978; Ph.D., 2002.

Bangalore P. Lingaraj, Professor Emeritus of Operations Management B.E., University of Mysore (India), 1961; M.S., Kansas State University, 1964; Ph.D., University of Pittsburgh, 1973.

Donald E. Linn, Professor of Chemistry (1988) A.B., Indiana University, 1977; M.S., University of Wyoming, 1979; Ph.D., University of Georgia, 1983.

Marc J. Lipman, Professor of Mathematical Sciences (2002) A.B., Lake Forest College, 1971; B.A., 1971; A.M., Dartmouth College, 1973; Ph.D., 1976.

Julie A. Litmer Schwaller, SIS Business Analyst (1984) A.A.S., Purdue University, 1984; A.A.S., 1988; B.S., 1989.

E. Brian Littlefield, Professor Emeritus of Physics B.S., University of Maine, 1953; Ph.D., Massachusetts Institute of Technology, 1961.

David Q. Liu, Associate Professor of Computer Science (2004) B.S., Nanjing University, China, 1986; M.S., Shanghi Jiao Tong University, China, 1988; M.S., The Ohio State University, 1993; Ph.D., 2003.

Yanfei Liu, Assistant Professor of Electrical and Computer Engineering (2005) B.S., Shandong Institute of Architecture and Engineering, China, 1996; M.S., Chinese Academy of Science, China, 1999; Ph.D., Clemson University, 2004.

Ann Livschiz, Assistant Professor of History (2005) B.A., University of Chicago, 1997; Ph.D., Stanford University, 2005.

Cynthia B. Lloyd, Instructor in Accounting (2010) B.B.A., University of Miami, 1973; M.B.A., University of Tennessee, 1976; J.D., 1984.

Bernard J. Lohmuller, Director of College Cable Access (1979) A.G.S., Indiana University, 1981; B.G.S., 1984; B.A., Purdue University, 1988.

Linda J. Lolkus, Associate Professor of Consumer and Family Sciences and Director of Nutrition (1985) B.S., University of Nebraska, 1974; M.S., 1979.

Kenneth A. Long, Continuing Lecturer in Philosophy (1981) B.A., Purdue University, 1972; M.A., The Ohio State University, 1981.

Allan L. Longroy, Professor Emeritus of Chemistry A.S., Flint Junior College, 1956; A.B., Flint College, 1958; M.S., University of Michigan, 1961; Ph.D., 1962.

William G. Ludwin, Associate Professor Emeritus of Public and Environmental Affairs B.A., Union College, 1964; M.P.A., Cornell University, 1971; D.P.A., State University of New York, 1976.

Amanda Luers, Assistant Softball Coach, Athletics (2009) B.A., Marshall University, 2007; M.S.A., Belmont University, 2007.

Brenda L. Lundy, Associate Professor of Psychology (1999) B.A., University of Toledo, 1987; M.A., 1989; Ph.D., 1992.

Hongli Luo, Assistant Professor of Electrical and Computer Engineering Technology (2006) B.S., Hunan University, China, 1993; M.S., 1996; Ph.D., University of Miami, 2006.

Wei Luo, Assistant Professor of Communication (2008) B.E., Fuzhou University, China, 1996; B.A., 1996; M.A., University of Utah, 2002; Ph.D., 2007.

James M. Lutz, Professor and Chair of Political Science (1982) B.A., University of Texas, 1968; M.A., 1970; Ph.D., 1975.

Laura J. Ferguson Lydy, Continuing Lecturer in Music (2002) B.A., Indiana University, 1990; M.M., 1995.

R. Douglas Lyng, Professor Emeritus of Biology B.A., St. Olaf College, 1962; M.A., University of South Dakota, 1963; Ph.D., Southern Illinois University, 1969.

Jun Ma, Assistant Professor of Management and Marketing (2007) B.S., Southwest Jiatong University, China, 1993; M.A., Nanjing University, China, 1999; M.B.A., Indiana University of Pennsylvania, 2000; Ph.D., Kent State University, 2007.

Lowell E. Madden, Professor Emeritus of Education A.B., Indiana University, 1958; M.S., 1960; Ed.D., Ball State University, 1970.

Aly A. Mahmoud, Professor Emeritus of Electrical Engineering B.S.E.E., Ain-Shams University (Egypt), 1958; M.S.E.E., Purdue University, 1961; Ph.D., 1964.

Jeffrey J. Malanson, Assistant Professor of History (2010) B.A., Clark University, 2003; M.A., 2004

Irwin A. Mallin, **Associate Professor of Communication (1999)** B.S., Syracuse University, 1984; J.D., 1987; M.A., 1995; Ph.D., Indiana University, 2001.

David P. Maloney, Professor of Physics (1987) B.S., University of Louisville, 1968; M.S., Ohio University, 1972; Ph.D., 1975.

Vincent M. Maloney, Associate Professor of Chemistry (1990) B.S., Rochester Institute of Technology, 1981; Ph.D., The Ohio State University, 1987.

Richard S. Manalis, Associate Professor Emeritus of Biology A.B., University of Washington, 1962; A.M., Indiana University, 1967; Ph.D., 1969.

Ali Mann, Third Assistant Women's Basketball Coach, Athletics (2008) B.S., Bowling Green State University, 2007.

Nancy K. Mann, Clinical Associate Professor of Dental Education (1998) A.S., East Tennessee State University, 1974; B.S., Loyola University of Chicago, 1981; M.S.Ed., Indiana University, 2000.

Maynard J. Mansfield, Professor Emeritus of Computer Science and Dean Emeritus of Engineering, Technology, and Computer Science B.A., Marietta College, 1952; M.S., Purdue University, 1954; Ph.D., 1956; Honorary Degree, Purdue University, 1998.

Dina M. Mansour-Cole, Associate Professor of Organizational Leadership and Supervision (1995) B.A., University of Michigan,1980; M.B.A., Xavier University, 1986; Ph.D., University of Cincinnati, 1995.

Marilyn S. Marchionni, Graphic Designer for the Division of Continuing Studies (1998) B.F.A., Wayne State University, 1968.

Dennis J. Marshall II, Associate Professor of Civil and Architectural Engineering Technology (1998) B.Arch., University of Kentucky, 1979; M.Des., Harvard University, 1992.

Jordan M. Marshall, Assistant Professor of Biology (2010) B.S., Ball State University, 2002; M.S., Michigan Technical University, 2004; Ph.D., The University of Tennessee, 2007.

Mark F. Masters, Professor and Chair of Physics (1993) B.S., Moravian College, 1985; M.S., Lehigh University, 1987; Ph.D., 1990.

Sue T. Mau, Associate Professor of Mathematics Education (2001) B.S., Purdue University, 1982; M.A.T., Indiana University, 1986; Ph.D., 1992.

David W. Mauritzen, Professor Emeritus of Electrical Engineering B.S.E.E., Purdue University, 1958; M.S.E.E., 1960; Ph.D., 1972.

Jennifer Lynn Mayhall, Director of Site Based Credit Programs for the Division of Continuing Studies (1999) B.S., Purdue University, 1983; M.S.Ed., Indiana University, 2002.

Provi M. Mayo, Assistant Professor of Chemistry (2007) B.S., University of Puerto Rico, 1994; M.S., Purdue University, 2000; Ph.D., 2004.

Jospeter M. Mbuba, Assistant Professor of Public and Environmental Affairs (2006) B.A., Egerton University, 1992; M.A., University of Nairobi, Kenya, 1997; Ph.D., Louisiana State University, 2004.

Ashley C. McArdle, Assistant Director of Career Services (2006) B.S., St. Mary's College, 1997; M.S.Ed., Indiana University, 2005.

David A. McCants, Professor Emeritus of Communication B.A., University of Richmond, 1958; M.A., Northwestern University, 1959; Ph.D., 1964.

George S. McClellan, Vice Chancellor for Student Affairs (2007) B.S., Northwestern University, 1982; M.S.Ed., 1998; Ph.D., University of Arizona, 2003.

Joseph P. McCormick, Manager Client Support, Information Technology Services (2006) B.S., Colorado Christian University, 2002; M.A., 2004.

Kenric A. McCrory, Director of Northeast Indiana Small Business Development Center for the Division of Continuing Studies (1997) B.S., Ball State University, 1972; M.P.A., Indiana University, 1975.

Nancy E. McCroskey-Hrehov, Associate Professor of Fine Arts (1981) B.F.A., Maryland Art Institute, 1976; M.F.A., Indiana University, 1980.

Robert G. McCullough, Director of Archeology Survey (2000) B.A., Indiana University, 1981; M.A., Ball State University, 1991; Ph.D., Southern Illinois University, 2000.

Kimberly S. McDonald, Professor and Chair of Organizational Leadership and Supervision (1981) B.A., Bowling Green State University, 1979; M.A., University of South Florida, 1981; Ed.D., Ball State University, 1991.

Joseph A. McKenna, Business Manager for the College of Engineering, Technology and Computer Science and the College of Health and Human Services (2008) B.S., Ball State University, 1984.

William J. McKinney, Professor of Philosophy and Vice Chancellor for Academic Affairs (2008) B.A., Bucknell University, 1986; B.S., 1986; M.A., Indiana University, 1989; Ph.D., 1992.

Patrick A. McLaughlin, Registrar (1999) B.S., Ball State University, 1984; M.A, 2001.

Karen K. McLellan, Continuing Lecturer in Biology (2003) B.A., University of Toledo, 1982; B.E., 1982; M.S., Indiana University, 1988.

Roseanne C. McLendon, Contract Specialist and Business Manager for the Office of Research & External Support (1992) A.A.S., Purdue University, 1993; B.S., 1996.

Penelope A. McLorg, Continuing Lecturer and Director of Gerontology (2005) B.A., University of Kentucky, 1984; M.A., Southern Illinois University, 1991; Ph.D., 2000.

Sandra L. McMurtrie, Academic Advisor in General Studies (1989) A.A.S., Purdue University, 1992; B.S., 1998.

Michael A. McRobbie, President of Indiana University (2007) B.S., University of Queensland; Australia, Ph.D., Australian National University, 1979.

Sarah A. Merchant, Director of Student Services for Engineering, Technology, and Computer Science (2001) B.S., Indiana Institute of Technology, 1993; M.B.A., 2005.

Rhonda L. Meriwether, Associate Director of Mastodon Advising Center (1991) B.S., Tennessee State University, 1984; M.S., 1990.

Elizabeth A. Merkler, Assistant Registrar Publications (1992)

Alice H. Merz, Associate Professor of Education (2003) B.S., Alma College, 1985; M.A., University of Northern Colorado, 1990; Ph.D., 1999.

Edward E. Messal, Professor Emeritus of Mechanical Engineering Technology B.S., Illinois Institute of Technology, 1959; M.S., 1963; Ph.D., 1970.

Marianne W. Messmann, Coordinator of Academic Ceremonies (1972)

Linda L. Meyer, Professor of Nursing (1972) B.S.N., The Ohio State University, 1967; M.A., Ball State University, 1980; Ph.D., Purdue University, 1998.

Joseph K. Meyers, Professor Emeritus of Music B.A., University of Kansas, 1954; Diploma, Vienna Academy of Music, 1960; D.Mus.A., University of Missouri, 1972.

Anna Miarka-Grzelak, Director of Marketing for the Division of Continuing Studies (1999) M.A., University of Warsaw, Poland, 1998.

Pamela A. Michalec, Bursar (1972) A.S.S.C., International Business College, 1972.

Sandra L. Michels, Mastodon Advising Center Operations Assistant (2000) A.S., Purdue University, 2002.

Richard E. Miers, Professor Emeritus of Physics B.S., Wisconsin State College, 1957; M.S., University of Wisconsin, 1961; Ph.D., 1969.

Daniel A. Miller, Assistant Professor of Psychology (2005) B.S., Ohio State University, 1998; M.S., Purdue University, 2002; Ph.D., 2005.

Darlene J. Miller, Instructional Technologist (1999) A.F.A., Institute of American Indian Art, 1994; B.F.A., Indiana University, 1999.

Geralyn M. Miller, Associate Professor of Management and Marketing and Director of Research in the Institute for Pension Plan Management (2000) B.A., Loyola University, 1975; M.A., DePaul University, 1990; Ph.D., University of Illinois, 1998.

Susan D. Minke, Continuing Lecturer in Accounting (2001) B.B.A., Western Michigan University, 1977; M.B.A., 1980.

John S. Minton, Professor of Folklore (1990) B.A., Stephen F. Austin State University, 1978; M.A., 1983; Ph.D., University of Texas, 1990.

Sydney L. Miracle, Nursing Academic Advisor (2007) B.A., Miami University of Ohio, 2003; M.S.Ed., Indiana University, 2007.

Aaron P. Mitchell, Assistant Professor of Music and Director of Choral Studies (2010) B.M., Brigham Young University, 2000; M.M. Temple University, 2004; D.M.A., University of Cincinnati, 2009.

John D. Mitchell, Manager Support Services/Mechanical (2005) A.S., Purdue University, 1994; A.S., 2000.

Robert D. Mitchell, Web Developer (2004) B.S., Case Western Reserve University, 1986; M.S., University of Washington, 1989; M.Div., Nazarene Theological Seminary, 1999.

Thelma L. Mitchell, Associate Professor Emerita of Accounting B.S., Manchester College, 1951; M.S., Ball State University, 1969; C.P.A. (Indiana).

Kenneth L. Modesitt, Professor Emeritus of Computer Science B.S., University of Illinois, 1967; M.S., Stanford University, 1965; M.S., Carnegie-Mellon University, 1967; Ph.D., Washington State University, 1972.

Max U. Montesino, Associate Professor of Organizational Leadership and Supervision (1995) B.S., Dominican College of Professional Studies, Santo Domingo, 1988; P.G.D., Santo Domingo Institute of Technology, 1989; M.D.A. Western Michigan University, 1991; Ed.D., 1995.

S. Scott Moor, Assistant Professor of Engineering (2004) B.S., Massachusetts Institute of Technology, 1978; M.S., 1978; M.A., 1995; Ph.D., University of California, 1995.

Audrey L. Moore, Director of Student Life (2001) B.A., Bowling Green State University, 1999; M.S.Ed., Indiana University, 2005.

Duston H. Moore, Associate Professor of Philosophy (2002) B.A., Katholieke Universiteit, Leuven, Belgium, 1993; M.A., 1995; Ph.D., 2001.

James S. Moore, Professor of Management and Associate Dean of the Doermer School of Business and Management Sciences (1980) B.S., Purdue University, 1970; M.S., 1972; Ph.D., 1974.

Michael H. Moore, Research Associate for Health Science Research Center (1986) A.S., Purdue University, 1987; B.S., Indiana University, 1990; M.S., 2001.

Jennie G. Moppert, **Assistant Soccer Coach (2006)**

Glenn C. Morgan, Manager of Systems Administration, Information Technology Services (2006) B.A., George Washington University, 1976.

Ed Moritz, Instructor Emeritus in English A.B., University of Southern California, 1961; M.A., 1963.

Christine L. Mosteller, Career Counselor (2007) B.A., University of South Florida, 2007; M.S., 2007.

John W. Motz, Continuing Lecturer in Visual Communication and Design and Director of the Center for Industrial Innovation and Design (1996) B.F.A., Indiana University, 1991.

George S. Mourad, Professor of Biology and Graduate Program Director (1993) B.Sc., Alexandria University (Egypt), 1974; M.Sc., Menoufia University (Egypt), 1980; Ph.D., University of Missouri, 1987.

Michael E. Mourey, Manager of IT Infrastructure, Information Technology Services (1979)

Karen S. Moustafa Leonard, Associate Professor of Management and Marketing (2004) B.S., Arkansas State University, 1976; D.B.A., Massey University, 1986; M.Phil., University of Auckland, 1989; Ph.D., University of Memphis, 2004.

Donald W. Mueller Jr., Associate Professor of Mechanical Engineering and Chair of Engineering (2001) B.S., University of Missouri, 1988; M.S., 1996; Ph.D., 2000.

Thomas J. Mulligan, Assistant Comptroller (1974) A.S., Indiana University, 1975; B.S.B., 1980.

Kathleen A. Murphey, Professor and Associate Dean of the School of Education (1991) B.A., University of Michigan, 1965; M.A., 1966; M.A.T., Harvard University, 1967; Ed.D., 1981.

Martin J. Murphy, Regional Parent Coordinator for 21st Century Scholars (2002)

Robert G. Murray, Associate Professor of Visual Communication and Design (1996) B.F.A., Indiana University, 1993; M.F.A., University of Cincinnati, 1995.

Ahmed Mustafa, Associate Professor of Biology (2001) B.Sc., University of Dhaka, Bangladesh, 1982; M.Sc., 1984; Ph.D., University of New Brunswick, Canada, 1997.

Brian R. Mylrea, Director International Student Services (2009) B.A., University of Wisconsin, 1988; M.S., 2008.

Janet V. Nahrwold, Director of Major Gifts (2007)

Ramesh V. Narang, Associate Professor of Manufacturing Technology (1992) B.Tech., Indian Institute of Technology, 1971; M.S., University of Iowa, 1975; Ph.D., 1992.

Assem Nasr, Instructor in Media and Communication (2010) B.A., American University of Beirut, Lebanon, 1993; M.A., American University, 2005.

Robin E. Newman, Associate Dean of Students (1998) B.S.W., Indiana State University, 1981; M.Ed.,Oregon State University, 1983.

Peter A. Ng, Professor and Chair of Computer Science (2008) B.S., St. Edwards University, 1969; Ph.D., University of Texas, 1974.

Janet K. Nichols, Coordinator of Administrative Support for Information Technology Services (1980) Certificate, Electronic Computer Programming Institute, 1966.

Joe D. Nichols, Professor of Education and Chair of Educational Studies (1994) B.S., Southwestern Oklahoma State University, 1979; M.Ed., University of Oklahoma, 1989; Ph.D., 1994.

Chad R. Nicholson, Assistant Professor of Music and Director of Instrumental Studies (2008) B.M.E., University of Oklahoma, 1996; M.Mus., New Mexico State University, 1999; D.Mus., Indiana University, 2006.

John C. Niser, Associate Professor and Chair of Consumer and Family Sciences (2008) B.S., University of Geneva, Switzerland, 1992; Ph.D., Anglia Polytechnic University, United Kingdom, 1999.

Janet Niswonger, Telephone Operations Supervisor, Telephone Operations (1993)

Amy J. Nitza, Assistant Professor of Education (2003) B.A., Purdue University, 1994; M.S., 1996; Ph.D., Indiana University, 2002.

Josué Njock Libii, Associate Professor of Mechanical Engineering (1984) Baccalaureate, College Evangelique (Cameroon), 1969; B.S.E., University of Michigan, 1973; M.S.E., 1975; Ph.D., 1980.

Mary Nixon, Help Desk Supervisor (2004)

Julie K. Nothnagel, Director of Testing Services (1997) B.S., Illinois State University, 1992; M.S., 1994.

Jeffrey A. Nowak, Associate Professor of Education and Director of the Northeast Indiana Science, Technology, Engineering, and Mathematics Education Resources Center (2000) B.S., Ohio Northern University, 1992; M.S., Ball State University, 1994; Ph.D., Indiana University, 2001.

Michael R. Nusbaumer, Professor of Sociology (1977) B.S.Ed., Indiana University, 1971; M.A., Ball State University, 1973; Ph.D., Western Michigan University, 1977.

Hilary O'Connell, 2nd Assistant Women's Basketball Coach, Athletics (2008) B.S., Illinois State University, 1992; M.S., 1994.

John C. O'Connell, Professor and Chair of Theatre (2007) B.A., Moorhead State University, 1983; M.F.A., University of Alabama, 1998.

Kathleen L. O'Connell, Professor of Nursing, Associate Vice Chancellor for Faculty Affairs, and Director of Behavioral Health and Family Studies Institute (1990) A.A.S., Purdue University, 1973; A.A.S., 1978; B.S., 1986; M.S.N., Indiana University, 1988; Ph.D., 2002.

Charles D. O'Connor, Professor of Theatre and Dean of the College of Visual & Performing Arts (2008) B.A., California State University, 1979; M.F.A., University of California, 1984.

Michael F. O'Hear, Associate Professor Emeritus of English B.A., St. Bonaventure University, 1962; M.A., University of Maryland, 1964; Ph.D., 1970.

David L. Oberstar, Assistant Professor Emeritus of Spanish B.A., College of St. Thomas, 1965; M.A., University of Kansas, 1967; Ph.D., 1973.

Karen M. Obringer, Career Counselor (2007) B.S., Bowling Green State University, 2000; M.S., 2007.

Harold L. Odden, Assistant Professor of Anthropology (2006) B.A., University of California, 1994; M.A., Emory University, 2003; Ph.D., 2007.

Erik S. Ohlander, Associate Professor of Religious Studies (2004) B.A., University of Minnesota, 1997; M.A., University of Michigan, 2000; Ph.D., 2004.

Hossein Mohammad Oloomi, Professor of Electrical Engineering (1990) B.S., University of Missouri, 1983; M.S., Wichita State University, 1985; M.S., 1989; Ph.D., 1989.

John J. Osowski, Continuing Lecturer in Mathematical Sciences (1999) B.A., DePaul University, 1982; M.A.S., The Ohio State University, 1985.

Koichiro Otani, Associate Professor of Public and Environmental Affairs (2000) B.E., Kansai University, Japan, 1976; B.A., 1978; M.S.A., Georgia Southwestern College, 1992; Ph.D., St. Louis University, 2000.

Joyanne J. Outland, Assistant Professor of Music (1973) B.Mus., Baylor University, 1968; M.Mus., University of Illinois, 1976; D.A., Ball State University,

Thomas A. Overton, Continuing Lecturer in Sociology (2001) B.A., Michigan State University, 1967; M.A., 1971; Ph.D., North Carolina State University, 1997.

C. James Owen, Associate Professor Emeritus of Public and Environmental Affairs B.S., Indiana University, 1963; M.A., University of Notre Dame, 1967; Ph.D., 1973.

Reynaldo M. Pablo Jr., Assistant Professor of Civil Engineering (2007) B.S., Mindanao State University, Philippines, 1992; M.A., Asian Institute of Technology, Thailand, 1996; Ph.D., Wayne State University, 2005.

Richard A. Pacer, Professor Emeritus of Chemistry B.S., University of Toledo, 1960; M.S., 1962; Ph.D., University of Michigan, 1965.

M. Kay Paddock-Offerle, Assistant Professor Emerita of Office Administration B.S., Huntington College, 1950; M.A., Ball State University, 1960.

Frank V. Paladino, Jack W. Schrey Professor of Biology and Agriculture and Preveterinarian Advisor (1982) B.A., State University College of New York, 1974; M.A., 1976; Ph.D., Washington State University, 1979.

Robert F. Palevich, Continuing Lecturer in Management and Marketing (2006) B.S., Purdue University, 1970; M.S.B.A., Indiana University, 1975; M.B.A., 1989.

Yifei Pan, Professor of Mathematical Sciences (1990) B.S., Jiangxi Teachers University, 1982; M.A., 1984; Ph.D., University of Michigan, 1990.

Janet C. Papiernik, Associate Professor of Accounting (1999) B.S., Purdue University, 1977; M.B.A., Youngstown State University, 1983; D.B.A., Cleveland State University, 1997.

Jill S. Parker, Director of Career Services (2001) A.A., Pasco-Hernando Community College, 1995; B.S., Florida State University, 1998; M.S., 2001.

Michelle Parker, Continuing Lecturer in Computer & Electrical Engineering Technology & Information Systems and Technology (2005) B.S., Ball State University, 1993; M.S., DePaul University, 2008.

Linda K. Patten, Buyer (1970) Certificate, International Business College, 1968.

Christopher H. Paul, Women's Basketball Coach (2001) B.A., University of Saint Francis, 1994.

Lee E. Peitzman, Manager of Instructional Video Operations, Information Technology Services (1988) A.A.S., Des Moines Area Community College, 1974; A.A.S., National Education Center, National Institute of Technology, 1986.

Jeanne Pendleton, Costume Shop Supervisor, Theatre (2008) B.A., Humboldt State University, 1999; M.F.A., 2002.

Penny C. Pereira, ETCS Student Success Center Advisor (1999) A.S., Purdue University, 2001; B.S., Indiana University, 2001.

Albino M. Perez Jr., Clinical Associate Professor of Dental Education (1977) A.S., Indiana University, 1977; B.S.Ed., 1981; M.S.Ed., 1984.

Ryan D. Perrotte, Assistant Men's Volleyball Coach (2004) B.S., Indiana University, 2000; M.A., 2003.

Kenneth D. Perry, Associate Professor of Mechanical Engineering Technology (1982) B.S.M.E., Purdue University, 1966; M.S.M.E., 1968.

Winfried S. Peters, Assistant Professor of Biology (2006) B.S., Gutenberg University, Germany, 1983; M.A., Liebig University, Germany, 1989; B.S., 1990; Ph.D., 1992.

Ruth K. Petitti, Graphic Designer (2007) B.F.A., Illinois Wesleyan University, 1972.

Gyorgy Petruska, Professor of Computer Science and Graduate Program Director (2000) B.S., Eotvos University, Budapest, 1964, D.Sc., Eotvos University, Budapest, 1967.

Bronn Pfeiffer, Assistant Men's Soccer Coach, Athletics (2008) B.S., Purdue University, 1987.

Gene D. Phillips, Professor Emeritus of Education B.S., Butler University, 1947; M.S., 1948; Ed.D., Indiana University, 1952.

Robert Pierce, Head Men's Baseball Coach, Athletics (2008) A.A.S., Arizona College, 1999; B.S., New Mexico State University, 2001.

Aranzazu Pinan-Llamas, Assistant Professor of Geosciences (2009) B.Sc., Universidad de Oviedo, Spain, 1996; M.S., 1999; M.S., Boston College, 2002; Ph.D., Boston University, 2007.

Raymond E. Pippert, Professor Emeritus of Mathematical Sciences A.B., University of Kansas, 1959; Ph.D., 1965.

Kathy S. Pollock, Associate Professor of Accounting (1996) B.S., Tri-State University, 1980; M.B.A., Indiana University, 1991; Ph.D., University of Kentucky, 1998.

Carlos A. Pomalaza-Ráez, Professor of R.F. Communications (1989) B.S.M.E., Universidad Nacional de Ingenieria (Peru), 1974; B.S.E.E., 1974; M.S.E.E., Purdue University, 1977; Ph.D., 1980.

Lea Ann Powers, Creative Director of Publications (2000) A.S., Indiana University, 1976; B.F.A., 2000.

Michael S. Pressler, Manager Electronic and Computer Support Services for Engineering, Technology, and Computer Science (1996)

G. Allen Pugh, Professor of Industrial Engineering Technology (1981) B.S., Indiana Institute of Technology, 1969; M.S., Purdue University, 1977; Ph.D., 1982.

Mark S. Putt, Director and Research Scientist for Health Science Research Center (1972) B.S., Purdue University, 1972; M.S.D., Indiana University, 1979; Ph.D., University of Amsterdam, 1995.

Mohammad Qasim, Assistant Professor of Chemistry (2009) B.Sc., Aligarh M. University, India, 1971; M.Sc., 1973; M. Phil, 1975; Ph.D., 1978.

C. Jack Quinn, Professor Emeritus of Mechanical Engineering Technology B.S., Indiana Institute of Technology, 1956; M.A., Ball State University, 1961; PE (Indiana).

Barth H. Ragatz, Professor Emeritus of Biochemistry and Pathology and Assistant Dean Emeritus B.A., Indiana Central College, 1964; M.S.C., Indiana University, 1969; Ph.D., 1971.

Richard N. Ramsey, Associate Professor Emeritus of English B.S., University of Wisconsin, 1964; A.M., University of Illinois, 1969; Ph.D., 1973.

Karen R. Ramsey Mielke, Senior Programmer Analyst (1987) Certificate, Indiana Institute of Technology, 1984; A.A.S., Purdue University, 1987; A.S., 1997; B.S., 1998.

Carrie E. Randall, Coordinator of Advising and Student Services for Public and Enviornmental Affairs (2003) B.A., College of Charleston, 1996; M.S., Indiana University, 2005.

Ali Rassuli, Associate Professor of Economics (1981) B.S., National University of Iran, 1972; M.A., University of Toledo, 1976; Ph.D., University of Nebraska, 1982.

Gail A. Rathbun, Director of the Center for Enhancement of Learning and Teaching (2004) B.A., State University of New York, 1973; M.A., San Francisco State University, 1991; Ph.D., Indiana University, 1999.

David A. Redett, Assistant Professor of Mathematical Sciences (2005) B.S., Miami University, 1998; Ph.D., Michigan State University, 2003.

Michael W. Reffeitt, Continuing Lecturer of Accounting and Finance (2007) B.S., Indiana University, 1983; M.S., Saint Francis College, 1985.

Nila B. Reimer, Continuing Lecturer of Nursing (2004) A.A.S., Purdue University, 1990; B.S., 1995; M.S., 2003.

Herbert Reininger, Assistant Professor Emeritus of Dental Auxiliary Education B.A., Colgate University, 1943; A.A.S., New York Institute of Applied Arts and Sciences, 1949

Mary J. Remenschneider, Operations Assistant, Admissions (2005) A.A.S, Purdue University, 1991; B.A., Concordia University, 2003.

Jay R. Remissong, Continuing Lecturer in Music (1999) B.A., Western Illinois University, 1980; M.M., Indiana University, 1980.

Barbara J. Resch, Associate Professor of Music and Associate Dean of the College of Visual & Performing Arts (1979) B.M., Valparaiso University, 1970; M.F.A., Syracuse University, 1972; D.M.E., Indiana University, 1995.

David J. Reynolds, Business Manager for Student Activities and Organizations (1996) B.S., Indiana University, 1992.

Laura K. Reynolds, Director of Field Services and Student Teaching (1993) A.S., Purdue University, 1995; B.S., 1996; M.S.Ed., Indiana University, 1999.

James K. Richardson, Oracle Database Administrator (1989) A.A.S., Purdue University, 1985; B.S., 1993.

Valerie A. Richardson, Research Associate in Community Research Institute (1990) B.S., Purdue University, 1978; M.B.A., Indiana University, 1980.

Mary Lee Richeson, Assistant Professor Emerita of Biology A.B., San Jose State University, 1948; M.A., Stanford University, 1949; Ed.D., Ball State University, 1978.

Shirley R. Rickert, Professor Emerita of Organizational Leadership and Supervision A.A.S., Purdue University, 1969; B.S., 1973; M.A., Western Michigan University, 1974; Ed.D., Ball State University, 1977.

Mark A. Ridgeway, Associate Professor of Scenic and Lighting Design (2003) B.S., Oral Roberts University, 1994; M.A., Northwestern University, 1996; M.F.A., University of Texas, 1999.

Christopher W. Riley, Coordinator of Student Success and Multicultural Programs for Diversity and Multicultural Affairs (2007) B.A., Wiberforce College, 1998.

Candy C. Ringel, Clinical Assistant Professor of Dental Education and Director of Dental Laboratory Technology (1998) A.S., Indiana University, 1998; B.S.Ed., 2004.

Carol A. Roberts, Instructor Emerita in English B.A., University of Michigan, 1963; B.A., Indiana University, 1965; M.A.T., 1986.

Lee M. Roberts, Assistant Professor of German Studies (2005) B.A., University of California, 1995; M.A., 2001; Ph.D., 2005.

Lewis C. Roberts, Associate Professor of English (2002) B.A., Indiana University, 1988; M.A., 1991; Ph.D., 1999.

Suin S. Roberts, Assistant Professor of Modern Languages and Linguistics (2007) M.A., Heinrich-Heine-Universitat, Germany, 2001; Ph.D., University of California, 2005.

Masson L. Robertson, Associate Professor Emeritus of Music B.Mus., University of Cincinnati, 1964; M.Mus., 1966; D.Mus.A., 1974.

Jenny M. Robinson, Continuing Lecturer in Music (2005) B.M., Royal College of Music, England, 2003; M.M., San Francisco Conservatory of Music, 2004.

Jerry W. Rodriguez, Associate Professor Emeritus of Education B.S., University of Southern Mississippi, 1960; M.Ed., 1962; Ed.D., 1973.

Jennifer Roherty, Health and Wellness Specialist, Athletics (2007) B.S., Ball State University, 2006.

Barbara K. Romines, Business Manager in Visual and Performing Arts (1980) A.S., Indiana University, 1988.

John F. Rosencrans, Professor Emeritus of Mechanical Engineering Technology B.S., Iowa State University, 1942; PE (Indiana).

Deborah D. Ross, Professor of Biology (1985) B.S., University College of North Wales, 1968; M.S., Cornell University, 1971; Ph.D., Rutgers University, 1974.

Jody M. Ross, Assistant Professor of Psychology (2008) B.A., Indiana University, 2001; M.A., University of Houston, 2006; Ph.D., 2008.

Debora J. Roy, Assistant Registrar Student Services (1991) A.A.S., Purdue University, 1994.

Linda L. Ruffolo, Executive Director of Development (1995) B.A., University of Wisconsin, 1963; M.S., Illinois State University, 1966.

Suzanne K. Rumsey, Assistant Professor of English (2006) B.A., Bethel College, 2000; M.A., Michigan State University, 2002; Ph.D., 2006.

Christopher Russell, Lead Network Systems Administrator, Information Technology Services (2007) B.S., Purdue University, 1994.

Christopher Rutkowski, Clinical Assistant Professor of Music and Sweetwater Chair in Music Theory and Technology (2009) B.A., University of London, England, 1976; B.S., Eastern Michigan University 1988; M.M. 1992; D. Mus., Indiana University, 1997.

Sean P. Ryan, Director of Engagement (2006) B.E., Youngstown State University, 1988; M.S., 1989; B.A., Columbia College, 1993; M.B.A., Indiana Institute of Technology, 2001.

Becky A. Salmon, Associate Professor of Nursing (1997) B.S., Purdue University, 1985; M.S., Ball State University, 1993.

Joyce M. Saltsman, Circulation Manager, Helmke Library (1974) B.S.Ed., Indiana University, 1976.

Hedayeh Samavati, Professor of Economics (1988) B.S., Tehran University, 1977; M.S., Iowa State University, 1980; Ph.D., 1987.

Robert J. Sanders Sr., Continuing Lecturer in Computer Science (1998) B.S., Indiana University, 1959; M.A., Saint Francis College, 1964.

Alan R. Sandstrom, Professor Emeritus of Anthropology A.B., American International College, 1968; M.A., Indiana University, 1971; Ph.D., 1975.

Pamela E. Sandstrom, Associate Librarian, Head of Reference and Information Services (1993) B.A., Indiana University, 1975; M.L.S., 1981; Ph.D., 1998.

Ronnie Sarno, Network Systems Administrator (2007) B.S.C.S., Ama Computer College, Philippines, 1991.

Steven T. Sarratore, Professor of Theatre and Co-Director of the Higher Learning Commission Re-Accreditation (1986) B.A., Michigan State University, 1975; M.F.A., Wayne State University, 1977.

Clara M. Sarrazine, Programmer/Analyst I (1989) B.S., Purdue University, 1992.

Margaret Saurin, Head Women's Soccer Coach (2007) B.S., Dublin Institute of Technology, 1999; M.Ed., Christian Brothers University, 2003.

Samuel T. Savage, Assistant Professor of Voice/Coordinator of Studio Voice (2009) B.S., Virginia Tech, 1981; B.M.E., Virginia Commonwealth University, 1986; M.M. University of Maryland, 1990; D.M.A., 2002.

Sandra K. Schaufelberger, ACELINK Program Coordinator for the Division of Continuing Studies (2005) B.S., Ball State University, 1986.

Donald J. Schmidt, Assistant Professor Emeritus of Mechanical Engineering Technology (1964) B.S., Purdue University, 1960; M.S., 1961.

Sarah Schmitz, 21st Century Scholars Student Coordinator, Diversity and Multicultural Affairs (2007) B.A., University of St. Francis, 2007.

Gregory Schnepf, Associate Director of Northeast Indiana Area Health Education Center, Health and Human Services (2007) B.S., Purdue University, 1971; M.S., 1975.

Gary L. Schott, Director of Entrepreneurship and Corporate Training for the Division of Continuing Studies (2004) B.S., University of Illinois, 1973; M.S., Northern Illinois University, 1977.

Julie Schrader-Gettys, Accommodations Specialist and Counselor for Services for Students with Disabilities (2007) A.S., Purdue University, 1990; B.A., Indiana University, 2006.

David Schuster, Assistant Professor of History (2006) B.A., University of California, 1993; M.A., University of Michigan, 1995; Ph.D., University of California, 2006.

Abraham P. Schwab, Assistant Professor of Philosophy (2010) B.A., Drake University, 1998; M.A., Loyola University, 2001; Ph.D., 2005.

Mary Arnold Schwartz, Assistant Director of the Writing Center for the Center for Academic Support and Advancement (2004) B.A., Indiana University, 1999.

Eric C. Schweikert, Continuing Lecturer in Music, (2008) B.M., Cleveland Institute of Music, 1986.

Clifford H. Scott, Associate Professor Emeritus of History A.B., University of Northern Iowa, 1959; A.M., University of Iowa, 1960; Ph.D., 1968.

Robert L. Sedlmeyer, Associate Professor of Computer Science (1977) B.S., Purdue University, 1976; M.S., 1977.

Christiane I. Seiler, Associate Professor Emerita of Germanic Languages B.A., Syracuse University, 1965; M.A., Washington University, 1968; Ph.D., 1974.

Gregory A. Serafini, Construction Project Manager (2004) B.S., Lawrence Technological University, 1975; B.A., 1976.

Alan R. Severs, Continuing Lecturer in Music (2005) B.M., Indiana University, 1973; M.A., Huntington College, 2000.

Roberta J. Shadle, Graphic Designer and Art Illustrator (1984) A.S., Indiana University, 1984.

Kelly J. Shanks, Operations Assistant, University Relations and Communications (2005) A.S., Indiana University, 1990.

Marilyn M. Shannon, Instructor in Biology (1983) B.A., University of Pittsburgh, 1974; M.A., Indiana University, 1979.

Maneesh K. Sharma, Associate Professor of Finance and Director of Operations in the Institute of Pension Plan Management (1996) B.S., University of Alabama, 1985; Ph.D., 1991.

John O. Sheets, Construction Project Manager (2007) A.S., Purdue University, 1967; B.S., Texas A & M University, 1973; B.S., Purdue University, 1977.

Mitchell A. Sherr, Associate Professor of Organizational Leadership and Supervision (1983) B.A., University of Maryland, 1967; MLIR, Michigan State University, 1969; J.D., University of Houston, 1972.

Janet L. Shilling, Administrative Assistant to the Vice Chancellor for Financial Affairs (1990) A.S., Purdue University, 2000.

Zoher E. Shipchandler, Professor Emeritus of Marketing B.A., University of Bombay, 1964; M.B.A., Indian Institute of Management, 1968; M.B.A., Indiana University, 1971; D.B.A., 1973.

Anson Shupe, Professor of Sociology (1987) B.A., College of Wooster, 1970; M.A., Indiana University, 1972; Ph.D., 1975.

William Shustowski, Jr., Associate Executive Director of Development-Major Gifts (2009) B.A., Assumption College, 1968; M.A., Colgate University, 1969; Ph.D., 1974.

James L. Silver, Professor Emeritus of Computer Science B.A., Washington and Jefferson College, 1966; M.A., University of Rochester, 1968; Ph.D., 1971; M.S., Virginia Polytechnic Institute and State University, 1983.

Beth L. Simon, Professor of English and Linguistics (1994) B.A., University of Iowa, 1972; M.A., 1975; Ph.D., University of Wisconsin, 1986.

Shirley A. Simpson, Clinical Assistant Professor of Nursing (2008) B.S., University of Maryland, 1983; B.S.N., University of Central Florida, 2004; M.S.N., 2007.

Susan D. Skekloff, Associate Librarian (1983) B.A., Indiana University, 1973; M.A., Purdue University, 1976; M.L.S., Indiana University, 1980.

David R. Skelton, Associate Professor Emeritus of Education B.S., Ball State University, 1959; M.A., 1962; Ed.D., Indiana University, 1969.

Kathleen Kay Skurzewski, Student Computing Resource Supervisor (1999)

Sharon K. Slack, Professor Emerita of Chemistry B.S., Indiana State University, 1956; Ph.D., Michigan State University, 1963.

Michael D. Slaubaugh, Associate Professor of Accounting (1995) B.S., Manchester College, 1982; M.B.A., Ball State University, 1984; Ph.D., Indiana University, 1992.

Barbara H. Smith, Assistant Professor of Digital Media/Convergent Journalism (2010) B. A., Michigan State University, 1980; M.A., 1990; Ph.D. University of Florida, 2009.

Dimples Smith, Employee Relations & Training, Human Resources (2003) A.S., Ball State University, 1982; B.G.S., Indiana University, 2006.

Donald F. Smith, Personal Counselor (1995) B.A., Saint Francis College, 1972; M.S.W., Indiana University, 1974.

Joshua D. Smith, Assistant Director of Financial Aid (2007) A.A.G.S., Indiana University, 2003; B.A., Ball State University, 2005.

Kari S. Smith, Academic Advisor, School of Business and Management Sciences (2002) A.S., Sauk Valley Community College, 1992; B.S., Northern Illinois University, 1994; M.S.Ed., Illinois State University, 1998.

Michelle R. Smith, Suicide Prevention Specialist, Behavioral Health and Family Studies Institute, Health and Human Services (2007) B.S., Ball State University, 1995.

Tad J. Smith, Superintendent of Grounds (2006) B.S., Purdue University, 1998.

Julius J. Smulkstys, Associate Professor Emeritus of Political Science A.B., University of Illinois, 1953; A.M., 1955; Ph.D., Indiana University, 1963.

Cheryl L. Sorge, Associate Professor of Nursing (1981) B.S.N., Ball State University, 1974; M.A., 1981.

Caryl L. Spira, Outreach Program Assistant (2006) B.S., University of Wisconsin, 1982.

L. Michael Spath, Continuing Lecturer in Philosophy (2007) B.S., Concordia College, 1975; M.Div., Christ Seminary, 1979; D.Min., Eden Theological Seminary, 1991; Ph.D., Saint Louis University, 1999.

Kathleen M. Squadrito, Professor of Philosophy (1973) A.A., Foothill College, 1965; B.A., San Jose State College, 1968; M.A., Washington University, 1972; Ph.D., 1973.

Shawna Squibb, Assistant Bursar, Bursar and Student Finance (2007) B.S., Purdue University, 1997.

John R. Stafford, Director of Community Research Institute (2003) B.S., Ball State University, 1971; M.U.R.P., University of Illinois, 1973.

Lubomir Stanchev, Assistant Professor of Computer Science (2005) M.S., University of Sofia, Bulgaria, 1998; P.h.D., University of Waterloo, 2004.

Arline R. Standley, Associate Professor Emerita of English B.A., University of Iowa, 1962; Ph.D., 1967.

Michael L. Stapleton, Chapman Distinguished Professor of English and Graduate Program Director (2004) B.S., Eastern Michigan University, 1981; Ph.D., University of Michigan, 1987.

Gary D. Steffen, Associate Professor of Electrical Engineering Technology and Chair of Computer and Electrical Engineering Technology and Information Systems Technology (1988) A.A.S., Purdue University, 1987; A.A.S., 1989; B.S., 1989; M.S., Ball State University, 2001.

Carol S. Sternberger, Professor and Chair of Nursing (1990) A.A.S., Purdue University, 1977; B.S., 1984; M.S., Ball State University, 1988; Ph.D., Purdue University, 1998.

Kenneth L. Stevenson, Professor Emeritus of Chemistry B.S., Purdue University, 1961; M.S., 1965; Ph.D., University of Michigan, 1968.

Jessica Steward, Head Women's Golf Coach, Athletics (2008) B.S., University of Miami, 2000.

Jennifer L. Stewart, Continuing Lecturer in English (2004) B.A., Ball State University, 1997; M.A., 1999.

Belinda A. Stillion Southard, Assistant Professor of Communication (2008) B.A., Willamette University, 2000; M.A., University of Maryland, 2004; Ph.D., 2008.

Larrie B. Stoffer, Senior Programmer/Database Usage Analyst (1986)

Jeffrey M. Strayer, Continuing Lecturer in Philosophy (2002) B.F.A., University of Miami, 1974; M.F.A., School of the Art Institute of Chicago, 1978.

Deborah E. Stuart, Clinical Assistant Professor of Dental Education (1998) B.S., Purdue University, 1978; M.S.E.d., Indiana University, 2005.

Carolyn F. Stumph, Assistant Professor of Economics (2003) B.S., Lehigh University, 1986; M.B.A., Oklahoma City University, 1993; Ph.D., Lehigh University, 1999.

Tina M. Sullivan, Employment and Benefits Administrator (2007) A.A.G.S., Indiana University, 2005.

Hao Sun, Associate Professor of Linguistics (2002) B.A., Shanghai International Studies University, 1982; M.A.,Warwick University (UK), 1990; M.A., University of Arizona, 1993; Ph.D., 1998.

Jack A. Sunderman, Associate Professor Emeritus of Geology B.S., Purdue University, 1951; Ph.D., Indiana University, 1963; M.S., University of Michigan, 1965.

Nichaya Suntornpithug, Assistant Professor of Business (2004) B.B.A., Thammasat University, (Thailand) 1992; M.B.A., University of Memphis, 1996; Ph.D., 2004.

Kathleen M. Surface, Faculty Support Consultant, Information Technology Services (2008) B.S., Purdue University, 1973.

Richard C. Sutter, Professor and Chair of Anthropology (1998) B.S., State University of New York, 1988; M.A., 1991; Ph.D., University of Missouri, 1997.

Rudy G. Svoboda, Professor Emeritus of Mathematics B.S., Northern Illinois University, 1966; M.S., Ohio University, 1967; Ph.D., Purdue University, 1971.

Zach Sweers, Ticket Manager/Annual Fund, Athletics (2008) B.A., Luther College, 2006; M.Ed., Wichita State University, 2002.

Terri J. Swim, Associate Professor of Education (2002) B.S., Purdue University, 1991; Ph.D., University of Texas, 1997.

Daryoush Tahmassebi, Assistant Professor of Organic Chemistry (2005) B.S., Shahid Beheshti University (Iran), 1989 M.S., 1992; Ph.D., Tarbiat Modarres University,(Iran), 1997.

Urcun J. Tanik, Assistant Professor of Computer Science (2009) B.S., University of Texas, 1997; M.S., University of Alabama, 2001; Ph.D., 2006.

Carol A. Tanner, Assistant Director of Personal and Professional Development for the Division of Continuing Studies (2006) A.S., Indiana University, 1983; B.G.S., 1998.

Jonathan D. Tankel, Professor Emeritus of Communication B.A., Bard College, 1973; M.A., University of North Carolina, 1976; Ph.D., University of Wisconsin, 1984.

Diane E. Taub, Professor of Sociology (2004) B.S., East Tennessee State University, 1975; M.A., 1977; Ph.D., University of Kentucky, 1986.

Jennifer A. Taylor, Assistant Professor of Biology (2010) A.A., Pierce College, 1995; B.A., University of California, 1997; Ph.D., University of North Carolina, 2007.

Louise A. Teague, Special Projects Coordinator, University Relations and Communication (2003) B.A., Anderson College, 1970; M.A., Ball State University, 1972.

Larry J. Temenoff, Telecommunications Network Analyst (1990) A.A.S., United Electronics Institute, 1968.

Mark C. Temte, Associate Professor of Computer Science (1983) B.A., Luther College, 1969; M.A., University of Maryland, 1971; Ph.D., 1975.

Hamilton S. Tescarollo, Assistant Professor of Music and Director of Keyboard Studies (2007) B.M., Arizona State University, 1990; M.M., 1995; D.M.A., 2003.

Jay S. Thayer, Assistant Director of Development (1997) B.A., Indiana University, 1974.

Chad L. Thompson, Associate Professor of Linguistics (1991) B.A., University of Alaska, 1974; M.A., 1977; Ph.D., University of Oregon, 1989.

Elizabeth A. Thompson, Associate Professor of Electrical Engineering (1999) B.S., The Ohio State University, 1981; M.S., University of Dayton, 1995; Ph.D., 1999.

David J. Thuente, Professor Emeritus of Computer Science B.S., Loras College, 1967; M.S. University of Kansas, 1969; Ph.D., 1974.

Roberta A. Tierney, Professor Emerita of Nursing B.S.N., Loyola University, 1966; M.S.N., University of Illinois, 1971; J.D., University of Toledo, 1983.

Judy A. Tillapaugh, Director of Wellness/Fitness (1995) B.S., Purdue University, 1982.

James J. Tobolski, Professor Emeritus of Biology B.S., Michigan State University, 1958; M.For., Yale University, 1961; Ph.D., Michigan State University, 1968.

Zelimir Todorovic, Associate Professor of Business (2004) B.E.S., University of Waterloo, Canada, 1988; M.B.A., Wilfrid Laurier University, Canada, 2000; Ph.D., University of Waterloo, Canada, 2004.

Christopher Tokpah, Director of Assessment (2008) B.S., University of Liberia, 1989; M.B.A., Kent State University, 2002.

Kirk A. Tolliver, Payroll Manager and Immigration Specialist (1987) B.A., Indiana University, 1982; M.B.A., 1991.

James G. Toole, Associate Professor of Political Science (2002) B.A., Haverford College, 1987; Ph.D., Brandeis University, 2000.

Yecenta Tostado, Academic Specialist Tutorial Services, Diversity & Multicultural Affairs (2008) B.S., Indiana University, 2006.

Douglas W. Townsend, Professor and Associate Chair of Mathematical Sciences (1976) B.S., The Ohio State University, 1970; M.S., University of Illinois,1975; Ph.D., 1976.

Deandra M. Travis, Instructor in Organizational Leadership and Supervision (2007) B.A., University of Notre Dame, 1992; M.B.A., University of Saint Francis, 2002.

Gary L. Travis, Graphic Designer and Art Illustrator (1989) B.F.A., Indiana University, 1999.

Summer L. Tritt, Assistant Librarian (2009) B.A., Old Dominion University, 2005; M.L.S., Indiana University, 2009.

Cheryl B. Truesdell, Librarian and Dean (1983) B.A., Indiana University, 1978; M.L.S., 1980.

John E. Tryon, Professor Emeritus of Manufacturing Technology B.S., Purdue University, 1939.

Amy Tudor, Head Women's Softball Coach (2009) B.A., Western Kentucky University, 2002; M.A., University of North Alabama, 2004.

Jeffrey S. Tungate, Associate Head Men's Basketball Coach (2005) B.A., Oakland University, 1993.

Nancy Tuschling, Academic Advisor, College of Arts and Sciences (2008) B.A., Purdue University, 1990; M.S., Ball State University, 1992.

Bart L. Tyner Jr., Webmaster (1998) A.B., Wabash College, 1989.

Georgia Wralstad Ulmschneider, Associate Professor of Political Science and Prelaw Advisor (1983) B.A., DePauw University, 1975; J.D., Washington University, 1978.

Audrey A. Ushenko, Professor of Visual Arts (1988) B.A., Indiana University, 1965; M.A., Northwestern University, 1967; Ph.D., 1979.

Sushil K. Usman, Associate Professor Emeritus of Sociology and Anthropology B.A., Lucknow Christian College, 1959; M.A., Lucknow University, 1961; M.A., University of Minnesota, 1967; Ph.D., Case Western Reserve University, 1976.

William E. Utesch, Associate Professor of Education (1991) B.A., Eastern Illinois University, 1981; M.Ed., 1984; Ph.D., Purdue University, 1989.

Brenda M. Valliere, Clinical Assistant Professor of Dental Education and Director of the Dental Hygiene Program (2007) A.S., Indiana University, 1977; D.D.S., The Ohio State University, 1986.

Hermine J. van Nuis, Professor Emerita of English A.B., Calvin College, 1963; M.A., University of Michigan, 1968; Ph.D., 1972.

Robert C. Vandell, Associate Professor of Mathematical Sciences (1996) B.S., University of Virginia, 1980; M.S., Miami University, 1986; Ph.D., Western Michigan University, 1996.

Christa A. Van De Weg, Academic Advisor for Health and Human Services (2007) B.A., Indiana University, 1997; M.A.T., 2007.

Karen L. VanGorder, Director of Distance Learning for the Division of Continuing Studies (2006) B.S., Indiana University, 1980.

Lesa R. Vartanian, Associate Professor of Psychology (1997) B.A., Michigan State University, 1990; M.A., Northern Illinois University,1993; Ph.D., 1997.

Desiderio A. Vasquez, Associate Professor of Physics (1993) B.S., Universidad Catolica del Peru, 1982; Ph.D., University of Notre Dame, 1989.

James F. Vernon, Associate Professor of Jazz Studies and Saxophone (2002) B.M., Indiana University, 1993; M.M., University of Denver, 1997.

Randall S. Vesely, Assistant Professor of Education (2006) B.A., University of Wisconsin, 1996; M.S., 2002; Ph.D., 2005.

Joyce K. Vetter, Instructor in Mathematical Sciences (1990) B.S., Central Michigan University, 1969; M.S., Western Michigan University, 1988.

Aurele J. Violette, Associate Professor Emeritus of History B.A., Bowdoin College, 1963; M.A., The Ohio State University, 1964; Ph.D., 1971.

Judith L. Violette, Librarian Emerita B.A., The Ohio State University, 1966; M.L.S., Indiana University, 1973.

Nancy E. Virtue, Associate Professor of French (1993) B.A., Assumption College, 1983; M.A., University of Wisconsin, 1987; Ph.D., 1993.

Robert J. Visalli, Associate Professor of Biology (2003) B.S., Indiana University, 1986; Ph.D., University of Wisconsin, 1992.

Scott M. Vitz, Coordinator of Academic Computing (2000) B.R.E., Great Lakes Christian College, 1995; M.A., Purdue University, 1998.

Susan P. Wade, Clinical Assistant Professor of Nursing (2010) B.S.N., Dawson College, 1988; M.S.N. Vanderbilt University, 1994.

Eric J. Wagenfeld, Director of Services for Students with Disabilities (2006) B.S., Western Michigan University, 2000; M.A., 2003.

Jeanne L. Wagenfeld, Administrative Assistant to the Vice Chancellor of Academic Affairs (2007)

Kimberly M. Wagner, Director of Alumni Relations (2004) B.A., Purdue University, 2001; M.P.A., Indiana University, 2005.

Linda J. Wagner, Continuing Lecturer in Mathematical Sciences (1996) B.S., University of Illinois, 1973; M.S., 1978; A.S., 1989.

Karen S. Wakley-Hinesly, Assistant Professor Emerita of Office Administration B.S., Ball State University, 1963; M.S., Indiana University, 1965; M.A.Ed., Ball State University, 1979.

Matthew P. Walsh, Associate Professor of Mathematical Sciences (2002) B.S., University of Waterloo, Canada, 1999; Ph.D., Auburn University, 2002.

Steven J. Walter, Distinguished Professor of Systems Engineering and Director of the Center of Excellence in Systems Engineering (2006) B.S., University of Maryland, 1981; M.S., University of Colorado, 1986; Ph.D., 1990.

Irene A. Walters, Executive Director of University Relations and Communications (1995) B.S., Boston University, 1964.

Gang Wang, Associate Professor of Physics (2003) B.S., University of Science and Technology of China, 1996; Ph.D., Northwestern University, 2003.

Guoping Wang, Associate Professor of Computer Engineering (2003) B.S., Tsinghua University, China, 1988; M.S., Nanjing University, China, 1991; Ph.D., University of Oklahoma, 2003.

Caroline R. Ward, Banner SIS Programmer and Analyst (2004) A.S., Purdue University, 1982; B.S., 1984; M.S.Ed., 1998.

Linda J. Wark, Associate Professor of Human Services (2002) B.A., Purdue University, 1981; M.S., 1986; Ph.D., 1990.

Michael A. Wartell, Professor of Chemistry and Chancellor (1993) B.S., University of New Mexico, 1967; M.S., Yale University, 1968; Ph.D., 1971.

Evelyn R. Waters, Assistant Professor Emerita of Consumer and Family Sciences B.S., Ball State University, 1962; M.A., 1968.

Cecilia A. Weakley, Assistant Professor of Mathematical Sciences (1987) A.B., Goucher College, 1968; M.A., Wesleyan University, 1970; Ph.D., University of North Carolina, 1978.

W. Douglas Weakley, Associate Professor of Mathematical Sciences and Graduate Program Director (1986) B.S., George Mason University, 1974; M.S., Northwestern University, 1979; Ph.D., 1980.

Kathleen J. Weatherford, Director of International Programs (2005) B.A., Earlham College, 1983; M.A., University of Rochester, 1985; Ph.D., 1989.

Sara Webb-Sunderhaus, Assistant Professor of English (2006) B.A., Bluffton College, 1995; M.A., Miami University, 2001; Ph.D., The Ohio State University, 2006.

Tina Webber, Business Manager, Comptroller (1990) A.A.S., Purdue University, 2000.

Alexandra M. Webster, 1st Assistant Women's Basketball Coach, Athletics (2007) B.S., University of Wisconsin, 2007.

Richard H. Weiner, Associate Professor of History (2000) B.A., University of Massachusetts, 1988; M.A., University of California, 1992; Ph.D., 1999.

Worth H. Weller, Continuing Lecturer in English (2000) B.A., Duke University, 1968; M.A., Indiana University, 2002.

John F. Wellington, Professor of Management (2000) B.S., Gannon College, 1967; M.S., Lehigh University, 1968; Ph.D., State University of New York, 1977.

James E. Whitcraft, Graphic Designer (1987) B.A., Purdue University, 1985.

K. Kate White, Instructor in English (2010) B.A. Loyola University, 1999; M.A., University of Oklahoma, 2004.

Samuel K. Whiteman, Systems Programmer II (1984) A.A.S., Indiana University, 1973.

Matthew Whitney, Business Operations Assistant, Comptroller (2009) B.S.,Indiana State University, 2000.

Roberta B. Wiener, Dean Emerita of Education and Professor Emerita of Education B.A., Brooklyn College, 1957; M.S., 1961; M.S.W., Adelphi University, 1988; Ed.D., Hofstra University, 1973.

Angela Williams, Assistant Director of Site Based Programs, Division of Continuing Studies (2008) B.A., Bowling Green State University, 1997; M.S., Miami University, 2002.

Wayne A. Williams, Academic Advisor, Health and Human Services, (2008) B.S., Purdue University, 2004; M.S.Ed., Indiana University, 2007.

Lauren Wilson, Assistant Athletic Director for Compliance and Special Assistant to the Chancellor (2007) B.S.B., Indiana University, 2006; M.B.A., 2008.

Mandi L. Witkovsky, IT Policy and Planing Analyst Coordinator, User Technology, Information Technology Services (1999) B.S., Indiana University, 2003.

Michael R. Wolf, Associate Professor of Political Science (2002) B.A., Michigan State University, 1992; M.A., Akron University, 1995; Ph.D., Indiana University, 2002.

Britton D. Wolfe, Assistant Professor of Computer Science (2009) B.S., Carnegie Mellon University, 2003; M.S., University of Michigan, 2005; Ph.D., 2009.

Warren W. Worthley, Professor Emeritus of Mechanical Engineering Technology B.S.M.E., Ohio University, 1957; M.S., Michigan State University, 1958; D.Eng., University of Detroit, 1972; PE (Indiana).

Corrie N. Wright, Academic Advisor in Mastodon Advising Center (2007) B.S., Ball State University, 2005; M.A., 2006.

Linda M. Wright-Bower, Assistant Professor of Music (1987) B.A., University of Akron, 1977; M.S., 1983; Certificate, DePaul University, 1984.

Mieko Yamada, Assistant Professor of Sociology (2007) B.A., Tamagawa University, Japan, 1990; M.Ed., University of Victoria, British Columbia Canada, 1999; Ph.D., Western Michigan University, 2006.

Ryan M. Yoder, Assistant Professor of Psychology (2010) B.A., University of South Florida, 1998; M.A., Bowling Green State University, 2002; Ph.D., 2005.

Jin Soung Yoo, Assistant Professor of Computer Science (2007) B.S. (Computer Science & Engineering), Korea University, 1990; B.S., (Statistics) 1992; M.S., University of Minnesota, 2006; Ph.D., 2007.

David M. Young, Professor of Psychology (1976) B.A., Whittier College, 1971; M.S., University of Utah, 1974; Ph.D., 1976.

Tellis Young, Academic Specialist in Enrollment Services, Diversity and Multicultural Affairs (2008) B.S., Indiana Institute of Technology, 1998.

Nashwan T. Younis, Professor of Mechanical Engineering (1988) B.S., University of Mosul (Iraq), 1977; M.S., University of Nebraska, 1982; Ph.D., Iowa State University, 1988.

Rudy Yovich, Assistant Athletic Director, Media Services, Athletics (2003) B.A., Edinboro University of Pennsylvania, 1988.

Jie Zhang, Assistant Professor of Physics (2010) B.S., University of Science and Technology of China, 1999; M.S., University of Pittsburgh, 2001; Ph.D., 2005.

Laura A. Zeigler, Assistant Director of Admissions (1996) B.S., Pennsylvania State University, 1993; M.S.Ed., Indiana University, 1999.

Karla P. Zepeda, Assistant Professor of Spanish (2007) B.A., Smith College, 1997; M.A., University of Connecticut, 2001; Ph.D., 2008.

Pamela R. Zepp, Computer Support Training Coordinator, Information Technology Services (1996) B.S., Indiana University, 1996; M.A., Purdue University, 2005.

Lisa Zerkle, Special Events Manager, Physical Plant (2008) B.A., Ball State University, 1989.

Stephen J. Ziegler, Associate Professor of Public and Environmental Affairs (2003) B.S., Texas Christian University, 1991; J.D., Thomas M. Cooley School of Law, 1997; M.A., Washington State University, 2001; Ph.D., 2003.

Victoria Adams Zischke, Assistant Professor of Theatre-Acting (2010) B.F.A., Southern Methodist University, 1991; M.F.A., University of Delaware, 1995.

Peter T. Zonakis, Associate Professor Emeritus of Dental Auxiliary Education D.D.S., Indiana University, 1961.

Dianna L. Zook, Instructor in Mathematical Sciences (1988) B.A., University of Steubenville, 1977; M.A., Kent State University, 1979.

Yvonne M. Zubovic, Associate Professor of Mathematical Sciences (1991) B.S., University of Akron, 1981; M.S., 1983; Ph.D., The Ohio State University, 1988.

Maria L. Norman, Assistant Director of Admissions (2007) B.A., DePauw University, 2004.

Colleges, Schools & Divisions

College of Arts and Sciences

Liberal Arts Building 153 ~ 260-481-6160 ~ www.ipfw.edu/as/

The College of Arts and Sciences offers programs and courses in the traditional liberal arts disciplines. In addition to providing students with opportunities to develop skills required for the workplace or for advanced study, it seeks to foster well-rounded development of the individual. The college recognizes the role of nontraditional students at IPFW and makes special efforts to meet their needs.

Graduates of the college's baccalaureate programs should have knowledge and awareness enabling them to be effective citizens and lifelong learners. They are expected to have a working understanding of the knowledge and methodology appropriate for their discipline and should be aware of the major issues in their field and able to communicate field content effectively.

The college's Associate of Arts program with 10 concentration areas serves as an intermediate step toward completion of a baccalaureate degree. The chemical methods Associate of Science program, on the other hand, serves students who are preparing for a career as a chemical technician and is not recommended for students who wish to pursue a bachelor's program.

The service and research missions of the college are those appropriate to a comprehensive regional university. The college is responsible for basic-skills courses in mathematics and oral and written communication, as well as the majority of the courses fulfilling college and IPFW general-education requirements. Faculty engage in research or creative endeavor linked to their teaching as well as to IPFW's role as the regional center for higher education. Through research, faculty maintain their qualifications as teachers and, in their contribution to knowledge in their disciplines,

enhance the reputation of the campus. Through research and service, the college seeks to make itself a vital resource for business, industry, public and private education, the arts, and government in northeast Indiana.

Academic Programs

The College of Arts and Sciences offers a broad range of minors, transfer programs, and interdisciplinary certificate programs. Each program with its sponsoring unit in the college is listed below for each degree. If you are undecided about a major within the college, you should, with the help of your advisor, choose courses carefully to assure reasonable progress as you narrow your choices and finally decide on a specific plan of study. If you change your major within the college, your degree requirements and your university affiliation may also change.

All bachelor's degrees require a major of at least 24 credits in courses specified by the major department. Minors include (a) a minimum of 12 credits with at least 8 credits at the 200 level or above; (b) at least half the credits taken as resident credits; and (c) a grade of C or better in each course.

Associate of Arts

An Associate of Arts (A.A.) is available with a choice of 10 concentrations. You can generally apply all credits earned in the A.A. program toward a bachelor's degree with a major in the A.A. concentration area. See Part 5 for A.A. requirements.

Concentration	**Department**
Biology	Biology
English	English and Linguistics
French	International Language and Culture Studies
German	International Language and Culture Studies
History	History
Mathematics	Mathematical Sciences
Political Science	Political Science
Psychology	Psychology
Spanish	International Language and Culture Studies
Women's Studies	Women's Studies

Associate of Science

Concentration	*Department*
Chemical Methods	Chemistry

Bachelor of Arts

Major	*Department*
Anthropology	Anthropology
Computer Science	Mathematical Sciences
Economics	Arts and Sciences

English	English and Linguistics
French	International Language and Culture Studies
Geology	Geosciences
German	International Language and Culture Studies
History	History
Interpersonal and Organizational Communication	Communication
Media and Public Communication	Communication
Philosophy	Philosophy
Political Science	Political Science
Psychology	Psychology
Sociology	Sociology
Spanish	International Language and Culture Studies
Women's Studies	Women's Studies

Bachelor of Science

Major	*Department*
Biology	Biology
Biology Teaching	Biology
Chemistry, B.S.C.	Chemistry
Chemistry Teaching	Chemistry
Communication Sciences & Disorders	Communication Sciences & Disorders
Geology	Geosciences
Mathematics	Mathematical Sciences
Mathematics Teaching	Mathematical Sciences
Medical Technology	Biology
Physics	Physics
Physics Teaching	Physics

Minors

Minor	*Department*
Anthropology	Anthropology
Applied Ethics	Philosophy
Biology	Biology
Chemistry	Chemistry
Communication Studies	Communication
Creative Writing	English and Linguistics
Economics	Arts and Sciences
English	English and Linguistics
Film and Media Studies	Arts and Sciences
Folklore	English and Linguistics
French	International Language and Culture Studies
Geology	Geosciences
German	International Language and Culture Studies
History	History
Journalism	Arts and Sciences
Linguistics	English and Linguistics

Mathematics	Mathematical Sciences
Media Production	Communication
Philosophy	Philosophy
Physics	Physics
Political Science	Political Science
Professional Writing	English and Linguistics
Psychology	Psychology
Public Relations	Arts and Sciences
Religious Studies	Philosophy
Sociology	Sociology
Spanish	International Language and Culture Studies
Women's Studies	Women's Studies

Certificates

Subject	*Department*
American Studies	Arts and Sciences
Civic Education and Public Advocacy	Arts and Sciences
Ethnic and Cultural Studies	Arts and Sciences
Gerontology	Arts and Sciences
International Studies	Arts and Sciences
Native American Studies	Arts and Sciences
Peace and Conflict Studies	Arts and Sciences
Teaching English as a New Language	English and Linguistics
Women's Studies	Arts and Sciences

Research Certificates

Anthropology	Arts and Sciences
Biology	Arts and Sciences
Chemistry	Arts and Sciences
Mathematical Sciences	Arts and Sciences
Physics	Arts and Sciences
Psychology	Arts and Sciences

Transfer Programs

The college's transfer programs in agriculture, journalism, forestry and natural resources, prepharmacy, and preveterinary studies are described in Part 5 of the *Bulletin*. You may also complete at IPFW one or two years of work toward many bachelor's degrees offered by the College of Arts and Sciences at Indiana University Bloomington and by the College of Liberal Arts and the College of Science at Purdue University West Lafayette. If you are planning to complete your degree at another campus, make this interest known the first time you see your IPFW academic advisor.

Preprofessional Programs

The college provides academic advising and programs for students who wish to prepare to compete for admission to professional colleges at one of the public universities in the state or at other institutions. In the list below, the years refer to full-time study, 30 to 32 credits per academic year:

Program	*Years*	*University*
Predentistry*	3–4	Indiana
Pre-law	4	Indiana
Premedicine*	3–4	Indiana

Program	*Years*	*University*
Pre-optometry*	3–4	Indiana
Prepharmacy 2	2	Purdue
Preveterinary Medicine	2	Purdue

*Although some colleges offer early admission to highly qualified students who have completed 90 credits, most applicants have completed a bachelor's degree. If you think you may qualify for early admission, you should consult your advisor about completing requirements for the bachelor's degree from the College of Arts and Sciences during the first year of professional college.

Academic advising for prepharmacy and preveterinary students is provided in the college office; for predental, premedical and pre-optometryy students in the Department of Biology; and for prelaw students in the Department of Political Science. If you are not majoring in the department that provides this advising, you should consult the appropriate preprofessional advisor before you see your department advisor to select your courses.

The Science and Engineering Research Semester (SERS)

Students majoring in natural sciences, mathematics, or computer science are encouraged to consider participating in the Science and Engineering Research Semester sponsored by the U.S. Department of Energy. If you are admitted to the program, you spend a fall or spring semester at one of six national laboratories conducting research under the mentorship of a staff scientist or engineer. The laboratories include Argonne in Illinois, Brookhaven in New York, Lawrence Berkeley in California, Los Alamos in New Mexico, Oak Ridge in Tennessee, and Pacific Northwest in Washington state. In addition to being directly involved in research, you also may enroll in one academic course during this semester. Credit for research and course work is determined in consultation with your academic advisor, the department chair, and the SERS campus advisor. Students accepted into the program receive a stipend, housing, and limited travel reimbursement. Inquiries should be initiated at least seven months prior to the anticipated starting date. You should begin planning in your freshman year to reserve time for this opportunity. Eligibility requirements include U.S. citizenship or permanent resident alien status, completion of the sophomore year, and a GPA of 3.00 or higher. For further information, contact the College of Arts and Sciences or the College of Engineering, Technology and Computer Science.

Cooperative Education (Co-Op) Program

Cooperative education provides an opportunity for you to work in an occupation related to your major. In this program, you may alternate between full-time study and full-time employment. Students normally enter the program at the end of their first year or upon completion of the summer session immediately following the first year. Check with your advisor regarding department requirements for eligibility for this program.

Research Certificate

The research certificate provides opportunities for you to engage in active learning opportunities integrating original research and the undergraduate curricula by learning research methods and tools appropriate to your discipline and your research interests within the discipline; by learning the foundations of research in the history, philosophy, and theory of the discipline; by learning advanced communications skills; and by applying these learnings by designing and executing a research study or project and communicating the results to others.

Degree Requirements and Academic Regulations for Students in the College of Arts and Sciences

In addition to the academic regulations of IPFW (see Part 8), the following rules apply to you. Where college regulations are stricter than IPFW regulations, the college regulations apply.

For each of the concentrations for the Associate of Arts, the requirements encompass approximately the first half of the bachelor's degree program offered by the sponsoring department. See Part 5 for complete requirements for related bachelor's degrees.

Because individual departments may have specific requirements, students are strongly encouraged to consult with their academic advisors when planning their course of study.

Requirements for the Associate of Arts

Credits in IPFW General Education Area I:(9)

> *COM 11400 Fundamentals of Speech Communication, with a grade of C- or higher*
> *ENG W131 Elementary Composition I (or equivalent), with a grade of C- or higher*
> Quantitative Reasoning course (except MA 10100), with a grade of C- or higher
> IPFW General Education Area II, including one science course with a scheduled laboratory (6 credits)
> IPFW General Education Area III (6 credits)
> IPFW General Education Area IV (6 credits)
> First year of an international language (8 Credits)
> Credits in a concentration with a grade of C- or higher in each course (see below) (15–21 credits)
> Additional credits in approved elective courses (4–12 Credits)

> **Total Credits with a graduation GPA of at least 2.00 (60–63)**

Requirements for Associate of Science

Requirements for the Associate of Science in chemical methods appear in Part 5 of this *Bulletin*.

Requirements for Bachelor of Arts

In addition to Areas I through VI of the IPFW General Education program and the requirements for your major, you must satisfy the following college requirements:

> Parts A through D listed below
> At least 30 credits in upper-level courses as defined by the departments offering the courses (excluding military science courses).

A grade of C- or better for all courses required in the major and a GPA of 2.00 or higher for all major department courses taken. At most, one approved course in the major discipline may also count toward IPFW General Education Area II–V requirements. No course in the major discipline may count in Area VI.

The IPFW General Education Area I computer literacy requirement for the College of Arts and Sciences is met by completing COM 11400, ENG W131, and one additional course selected from the following: ETCS 10600, CS 10700, CS 16000, MA 14900, MA 15300, MA 15400, MA 15900, MA 16300, MA 16400, MA 16500, MA 16600, MA 16800, MA 22900, MA 23000, STAT 12500, or an approved departmentally specified course, or completion of STEPS (or successor program).

The IPFW General Education Area I quantitative reasoning requirement for the College of Arts and Sciences is met by completing, with a grade of a C- or better, any course listed in the quantitative reasoning section of General Education Area I (except MA 10100), or any mathematics course numbered 15300 or higher. Note that for some degree programs, only a subset of the courses listed in the quantitative reasoning section of General Education Area I are allowed. The various courses differ in terms with respect to emphasis on the foundations of mathematical reasoning and their applications. You are strongly encouraged to consult your academic advisor as to which course would be most appropriate for you.

The College of Arts and Sciences requires that you complete at least one science course with a scheduled laboratory as part of your IPFW General Education Area II requirements. This requirement may be met either by taking a lecture course that includes a scheduled laboratory (e.g., CHM 111) or a lecture course plus a laboratory course designed to accompany it (e.g., GEOL G100 plus GEOL L100). This provides the opportunity to apply concepts learned in the classroom and to conduct scientific inquiry.

A sufficient number of elective credits to bring the total for graduation to 124.

Part A: English Writing

An education in the liberal arts and sciences emphasizes the value of analyzing and presenting ideas in writing; thus the College strives to improve its students' written communication skills. Consequently, you are required to take a second writing course in addition to the General Education writing course. You will complete ENG W233 or an equivalent second writing course approved for this purpose by individual departments and the College. In general these second writing courses are developed to introduce students to the types of writing they will do in their respective fields. Approved equivalents are ENG L202, HIST H217, ILCS I300, POLS Y205, or SOC S260. You must complete both ENG W131 (or equivalent) and your second writing course with a grade of C- or better.

Part B: International Language

You must complete two courses at the first-year level and two courses at the second-year level in a single international language (or demonstrate equivalent proficiency). For advanced placement and special credit in an international language, see the additional information for the bachelor's degree. Under certain limited conditions, students may petition to substitute American Sign Language (plus a course on global issues or three credit hours of study abroad) for an international language. Students who wish to explore this option should consult the department of their major.

Part C: Distribution

A significant component of the College of Arts and Sciences education is the breadth of knowledge throughout the three major areas of Science and Mathematics, Social and Behavioral Sciences, and Humanities. You will accomplish this by completing 3 credits in each of these areas. Credits in your major discipline or in directed study courses may not be used to satisfy this requirement.

1. Science and Mathematics. Courses from the following disciplines satisfy this requirement:

Agriculture (FNR 10300 only)
Anthropology (ANTH B200 only)

Astronomy
Biology (excluding BIOL 10500)
Chemistry
Entomology
Geography (physical geography only)
Geology
Mathematics (excluding MA 10100, 10200, and 10300)
Physics
Political Science (POLS Y395 only)
Sociology (SOC S351 only)
Statistics

2. Social and Behavioral Sciences. Courses from the following disciplines satisfy this requirement:

Anthropology (excluding ANTH B200)
Communication (excluding COM 11400, 21000, 24000, 31200, and 31600)
Communication Sciences and Disorders
Economics
English (ENG G205, G206, and G301 only)
Geography (human, cultural, or social geography only)
Gerontology (GERN G231 only)
International Studies (lNTL I200 only)
Journalism (JOUR C200, C300, J300, and J337 only)
Linguistics
Political Science (excluding POLS Y395)
Psychology
Sociology (excluding SOC S351)
Spanish* (SPAN S425, S426, and S428 only)
Women's Studies (WOST W210 and W240 only)

3. Humanities. Courses from the following disciplines satisfy this requirement:

Afro-American studies
American studies

Arabic
Architectural Engineering Technology (ARET 21000 and 31000 only)
Chinese*
Classical studies
Communication (COM 21000, 21600, 24000, 31200, and 31600 only)
Comparative literature
English (except ENG G205, G206, G301, P131, W129, W131,
W140, W232, W233, W234, W331, W364, W397, W398,
 W421, W422, and W460)
Film studies
Fine arts (excluding studio courses)
Folklore
French*
German*
History
International Language and Culture Studies (excluding ILCS I300)
Journalism (excluding JOUR C200, C300, and J300)
Latin American Studies
Music (excluding performance/skills courses)
Philosophy

Religious Studies
Russian*
Spanish* (except SPAN S425, S426, and S428)
Theatre (excluding performance/production courses)
Women's Studies (excluding WOST W210 and W240)

*excluding courses used to satisfy the Part B requirement

Part D: Cultural Studies

An important element of the College of Arts and Sciences degree requirements is for students to acquire skills necessary to be productive, responsible citizens and community leaders. To do this, you must have a commitment to free and open inquiry and show mutual respect across multiple cultures and perspectives. Students will accomplish this by taking 6 credit hours in cultural studies, including one course in Western Culture and one course in Non-Western Culture.

1. Western Culture. You must complete one of the following 3-credit courses dealing broadly with the Western tradition:

CLAS C205, C405
COM 31200
ENG L101, L102
FINA H111, H112
HIST H113, H114
PHIL 11000, 24000, 30100, 33100
POLS Y105, Y381, Y382
REL 11200, 23100

2. Non-Western Culture. You must complete one of the following 3-credit courses dealing exclusively or primarily with a non-Western culture or cultures:

ANTH E320, E321, E330, E335, E340, E341, E345, E 375, E401, E405, E420, E445, E455, E457, E462, E470, P360, P370
CMLT C461
ENG L107, L113, L364
FINA H415
FOLK F305, F352
HIST A310–A311, C393, D 402, D410, E100, E331, E332, E336, E431, F341, F342, F346, F432, G451, G452, H201, H202, H203, H204, H232, T335
PHIL 33000
POLS Y337, Y339, Y340
REL 23000, 30100
SPAN S246, S412, S471, S472, S477, S479, S480
WOST W301

Requirements for Bachelor of Science

In addition to Areas I through VI of the IPFW General Education program and the requirements for your major, you must satisfy the following college requirements:

Parts A and B listed below
At least 30 credits in upper-level courses as defined by the departments offering the courses (excluding military science courses)

A GPA of 2.00 or higher for all major department courses taken. At most, one approved course in the major discipline may also count toward satisfying IPFW General Education Area II–V requirements.

The IPFW General Education Area I computer literacy requirement for the College of Arts and Sciences is met by completing COM 114, ENG W131, and one additional course selected from the following: ETCS 10600, CS 16000, MA 14900, MA 15300, MA 15400, MA 15900, MA 16300, MA 16400, MA 16500, MA 16600, MA 16800, MA 22900, MA 23000, STAT 12500, or an approved departmentally specified course, or completion of STEPS (or successor program).

A sufficient number of elective credits to bring the total for graduation to 124.

Part A: English Writing

An education in the liberal arts and sciences emphasizes the value of analyzing and presenting ideas in writing, and thus the College strives to improve its students' written communication skills. Consequently, you are required to take a second writing course in addition to the General Education writing course. You will complete ENG W233 or an equivalent second writing course approved for this purpose by individual departments and the College. In general, these second writing courses are developed to introduce students to the types of writing they will do in their respective fields. Approved equivalents are ENG L202, HIST H217, ILCS I300, POLS Y205, or SOC S260. You must complete both ENG W131 (or equivalent) and your second writing course with a grade of C- or better.

Part B: International Language

You must complete two courses at the first-year level (or demonstrate equivalent proficiency) in one international language. Students in a teaching program are exempt from the international language requirement. You are urged to begin studying a language as soon as possible. For advanced placement and special credit in international language, see the additional information for bachelor's degrees, below.

Additional Information for Bachelor's Degrees

Along with the IPFW academic regulations (see Part 8), the following information applies to all bachelor's degree programs:

1. Special Credit for International Language.

When you begin your international language study at the second-semester (112 - 113) level or higher, you are eligible to apply for special credit after you successfully complete the course into which you placed. You may receive up to 14 credits of special credit for the courses you skipped.

2. Undistributed Transfer Credit.

Undistributed transfer credit (for courses not equivalent to IPFW courses) may be used to satisfy General Education requirements and distribution requirements and may be counted in the major. You should contact the College office to confirm the application to your program of any undistributed transfer credit you are awarded.

3. Credit Restrictions.

The following restrictions apply to all Arts and Sciences degrees:

You may count no more than 4 credits in:
HPER activities

You may count no more than 3 credits in:
    IDIS courses ENG W135 MA 14900, and only by those departments that allow graduation credit for MA 15300

You may count no credit in:
    Developmental courses such as CHM 10000; EDUC X15x; ENG R15x, W11x, and W130; and MA 10900, 11100, and 11300.

    Courses that provide only surveys of career opportunities, such as AGR 10100, BUS J100, CNT 10100, EDUA F300 (except when offered as Invitation to Teaching) and G250, EDUC X210, ENGR 10100, ETCS 10100, HSRV 10000 (1 cr.), HTM 10000, IDIS 10500, MHT 10000 (1 cr.), NUR 10100, RHIT 10000, SPEA V352, and VM 10200.

    Courses designed to provide a skill not required to complete the major, such as AHLT Mxxx, AHSP Mxxx; BUFW C124, C125, C293, and X221; BUS K214; DAST Axxx; DHYG Hxxx; OLS 12100; and SPV 39900.

    Courses offered by the former Indiana Division of General and Technical Studies (DGTS).

4. Credit for Military Service.

Up to 9 credits for military service in the armed forces of the United States may be counted toward graduation.

5. Overlapping Content.

You may not count toward graduation any courses or sequences considered to have overlapping content. Such courses are listed below; check this list before registering. This list may not be exhaustive. Please consult with your advisor. If you enroll in a course that appears in the left column, and you have completed any of the courses that are listed to its right, only the most recently completed course will apply toward graduation.

Courses with Overlapping Content

AHSP M195	BIOL 10500
BIOL 10000	BIOL 10800–10900 or 11700–11900 or 25000
BIOL 10500	AHSP M195
BIOL 10800-10900	BIOL 10000 or 11700–11900 or 25000
BIOL 11700-11900	BIOL 10000 or 10800–10900 or 25000
BIOL 12100/12200-13300/13400	BIOL 10000 or 10800–10900 or 11700–11900 or 25000
BIOL 20300–20400	
BIOL 21500–21600	BIOL 21500–21600
BIOL 21800	BIOL 20300–20400
BIOL 22000	BIOL 24100–24200
BIOL 22100	BIOL 22100 or 43800–43900 or 43700
BIOL 23300–23400	BIOL 22000 or 43800–43900 or 43700
BIOL 24100–24200	BIOL 38100–38200
BIOL 25000	BIOL 21800
BIOL 31700	BIOL 10000 or 10800/10900
BIOL 38100–38200	PSY 31700
BIOL 43700	BIOL 23300–23400
BIOL 43800-43900	BIOL 22000 or 22100 or 43800-43900
BUS K200–K211–K212	BIOL 22000 or 22100 or 43700

CHM 10100–10200	CS 10600, ETCS 10600
CHM 10400	CHM 10400 or 11100–11200 or 11500–11600 or 12900 or 15100
CHM 11100–11200	CHM 10100–10200 or 11100–11200 or 11500–11600 or 12900 or 15100
CHM 11500–11600	CHM 10400 or 10100–10200 or 11500–11600 or 12900 or 15100
CHM 12900	CHM 10400 or 10100–10200 or 11100–11200 or 12900 or 15100
CHM 15100	CHM 10400 or 10100–10200 or 11100–11200 or 11500-11600 or 15100
CHM 22400	CHM 10400 or 10100–10200 or 11100–11200 or 11500-11600 or 12900
CHM 25100	CHM 32100
CHM 25200	CHM 25500–25600 or 26100–26200
CHM 25400–25800	CHM 25400–25800 or 26300–26400 or 26500–26600
CHM 25500–25600	CHM 25200 or 26300–26400 or 26500–26600
CHM 26100–26200	CHM 25100 or 26100–26200
CHM 26300–26400	CHM 25100 or 25500–25600
CHM 26500–26600	CHM 25200 or 25400–25800 or 26500–26600
CHM 32100	CHM 25200 or 25400–25800 or 26300–26400
CHM 37100	CHM 22400
CHM 38300–38400	CHM 37300–37400 or 38300–38400
COM 24800	CHM 37100 or 37300–37400
COM 25000	COM 25100
COM 25100	JOUR C200
COM 35200	COM 24800
CS 10600	JOUR J300
ECON E200	BUS K200-K211-K212, ETCS 10600
ECON E201	ECON E201
ECON E270	ECON E200
EE 30200	POLS Y395 or PSY 20100 or SOC S351 or SPEA K300 or STAT 24000 or 26000 or 30100 or 30300 or 307
ENG L220	STAT 31100 or 51600
ENG L315	ENG L315
ENG L374	ENG L220
ENG L379	ENG L379
ENG W131	ENG L374
ENG W135	ENG W135
ENG W140	ENG W131
ENG W233	ENG W233
ETCS 10600	ENG W140
FOLK F254	BUS K200-K211-K212, CS 10600
GEOL G100	MUS Z201
GEOL G103	GEOL G103 or S100
GEOL S100	GEOL G100 or S100
GER G309	GEOL G100 or G103
HIST A316	INTL I209
HIST A345-A346	HIST A345–A346
HIST E331	HIST A316
HIST E332	HIST E431
IDIS 11000	HIST E432
IDIS G102	IDIS G102 or G103 or G104
IDIS G103	IDIS 11000 or G103 or G104
IDIS G104	IDIS 11000 or G102 or G104
INTL I209	IDIS 11000 or G102 or G103
INTL I441	GER G309
JOUR C200	AMST A441
JOUR J300	COM 25000
MA 14900	COM 35200
MA 15000	MA 15300

MA 15100	MA 15100 or 15300–15400 or 15900
MA 15300	MA 15000 or 15300–15400 or 15900
MA 15300–15400	MA 14900
MA 15900	MA 15000 or 15100 or 15900
MA 16300–16400	MA 15000 or 15100 or 15300–15400
MA 16500–16600	MA 16500–16600 or 22700–22800 or 22900–23000
MA 17500	MA 16300–16400 or 22700–22800 or 22900–23000
MA 21300	MA 21300–21500
MA 21300–21500	MA 17500 or 21500
MA 22700–22800	MA 17500
MA 22900–23000	MA 16300–16400 or 16500–16600 or 22900–23000
MA 26100	MA 16300–16400 or 16500–16600 or 22700–22800
MA 26200	MA 26300
MA 26300	MA 32100 or 36300
MA 32100	MA 26100
MA 36300	MA 26200 or 36300
MUS Z201	MA 26200 or 32100
PHIL 11200	FOLK F254
PHIL 33000	REL 11200
PHIL 33100	REL 23000
PHYS 13100–13200	REL 23100
PHYS 15200–25100	PHYS 15200–25100 or 20100–20200 or 21800–21900 or 22000–22100
PHYS 20100–20200	PHYS 13100–13200 or 20100–20200 or 21800–21900 or 22000–22100
PHYS 21800–21900	PHYS 13100–13200 or 15200–25100 or 21800–21900 or 22000–22100
PHYS 22000–22100	PHYS 13100–13200 or 15200–25100 or 20100–20200 or 22000–22100
PHYS 24100	PHYS 13100–13200 or 15200–25100 or 20100–20200 or 21800–21900
PHYS 25100	PHYS 25100 or 26100
PHYS 26100	PHYS 24100 or 26100
POLS Y101	PHYS 24100 or 25100
POLS Y150	POLS Y150
POLS Y395	POLS Y101
PSY 20000	ECON E270 or PSY 20100 or SOC S351 or SPEA K300 or STAT 24000 or 26000 or 30100 or 30300 or 30
PSY 20100	PSY 41600
PSY 20200	ECON E270 or POLS Y395 or SOC S351 or SPEA K300 or STAT 24000 or 26000 or 30100 or 30300 or 30
PSY 20500	PSY 20500
PSY 22500	PSY 20200
PSY 23500	PSY 33500
PSY 31700	PSY 36900
PSY 33500	BIOL 31700
PSY 36900	PSY 22500
PSY 41600	PSY 23500
REL 11200	PSY 20000
REL 23000	PHIL 11200
REL 23100	PHIL 33000
SOC S35100	PHIL 33100
SPEA K300	ECON E270 or POLS Y395 or PSY 20100 or SPEA K300 or STAT 24000 or 26000 or 30100 or 30300 or 3
STAT 24000	ECON E270 or POLS Y395 or PSY 20100 or SOC S351 or STAT 24000 or 26000 or 30100 or 30300 or 30
STAT 26000	ECON E270 or POLS Y395 or PSY 20100 or SOC S351 or SPEA K300 or STAT 26000 or 30100 or 30300
STAT 30100	ECON E270 or POLS Y395 or PSY 20100 or SOC S351 or SPEA K300 or STAT 24000 or 30100 or 30300
STAT 30300	ECON E270 or POLS Y395 or PSY 20100 or SOC S351 or SPEA K300 or STAT 24000 or 26000 or 30300
STAT 30700	ECON E270 or POLS Y395 or PSY 20100 or SOC S351 or SPEA K300 or STAT 24000 or 26000 or 30100
STAT 31100	ECON E270 or POLS Y395 or PSY 20100 or SOC S351 or SPEA K300 or STAT 24000 or 26000 or 30100
STAT 34000	EE 30200 or STAT 51600
STAT 51100	STAT 51200

STAT 51200	ECON E270 or POLS Y395 or PSY 20100 or SOC S351 or SPEA K300 or STAT 24000 or 26000 or 30100
STAT 51600	STAT 34000
	EE 30200 or STAT 31100

Upper-Level Courses

All courses numbered 300 or above are considered upper-level courses. In addition, the following 200-numbered courses, defined as upper level by the departments offering them, may be included in the 30 credits in upper-level courses required for graduation.

BIOL 21500
CHM 21800, 22400, 25400, 25500, 25600, 25800, 26100, 26200, 26500, 26600, 27500, and 29000
ENTM 20600-20700
GEOL G213, G221, and G222
MA 26100, 26300, and 27500
PHYS 27000
PSY 20100, 20300, 20500, 23500, 24000, and 27200
REL 23000 and 23100

Correspondence Study

Departments may approve enrollment in correspondence-study courses by students pursuing their majors. After you obtain a signature indicating departmental approval, you must bring the enrollment form to the College of Arts and Sciences for authorization to enroll.

Academic Load

You may register for more than 18 credits per semester or 7 credits in a six-week summer session only if: (1) your most recent semester GPA is 3.00 or higher, (2) you have no incomplete grades at the time of registration, and (3) you obtain approval of a dean of the college.

Pass/Not-Pass Option

The following restrictions are in addition to those in the IPFW academic regulations in Part 8 of this *Bulletin*:

You must be classified as a sophomore or higher and must have a GPA of 2.50 or better.
You may take no more than two courses per year under the Pass/Not-Pass Option. Summer-session enrollments are counted as part of the preceding academic year for the purpose of this restriction.

Academic Renewal Option

The College of Arts and Sciences participates in the Academic Renewal option for eligible students returning to IPFW after an absence of five or more years. See your advisor for additional details.

Changing Major Within the College

If you change your major within the college, your college requirements will be those specified in the *Bulletin* in effect at the time the change becomes effective.

College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 243 ~ 260-481-6839 ~ www.etcs.ipfw.edu

The objective of the College of Engineering, Technology, and Computer Science (ETCS) is to be an increasingly valuable technological resource for its students, and to serve society as an integral component of a unique and comprehensive university with vigorous regional ties and a growing national reputation. Within the broader mission of the university, the college's goal is to prepare technicians, technologists, computer professionals, and engineers, and to provide its students with opportunities to develop fundamental skills, knowledge, and a professional attitude. The College is also the academic home for Military Science faculty members who offer courses in the Army ROTC program that leads to commissioning as an Army Officer.

ETCS offers degree programs in many areas related to computer science, engineering technology, engineering, and leadership. Courses for these programs range from the study of fundamentals to practical, real-world, industrial methods.

Academic Programs

Full descriptions of the college's certificate and degree programs appear in alphabetical order in Part 5 of this *Bulletin.*

Associate of Science

Subject	Department
	Manufacturing & Construction Engineering Technology and Interior Design
Architectural Engineering Technology	Manufacturing & Construction Engineering Technology and Interior Design
Civil Engineering Technology	Computer and Electrical Engineering Technology & Information Systems and Technology
Electrical Engineering Technology	Manufacturing & Construction Engineering Technology and Interior Design
Industrial Engineering Technology	Computer and Electrical Engineering Technology & Information Systems and Technology
Information Systems	Manufacturing & Construction Engineering Technology and Interior Design
Interior Design	Manufacturing & Construction Engineering Technology and Interior Design
Mechanical Engineering Technology	Organizational Leadership and Supervision
Organizational Leadership and Supervision	

Bachelor of Science

Subject	Department

Subject	Department
Civil Engineering (B.S.C.E.)	Engineering
Computer Engineering (B.S.Cmp.E.)	Engineering
Computer Engineering Technology (B.S.)	Computer and Electrical Engineering Technology & Information Systems and Technology
Computer Science (B.S.)	Computer Science
Construction Engineering Technology (B.S.)	Manufacturing & Construction Engineering Technology and Interior Design
Electrical Engineering (B.S.E.E.)	Engineering
Electrical Engineering Technology (B.S.)	Computer and Electrical Engineering Technology & Information Systems and Technology
Industrial Engineering Technology (B.S.)	Systems and Technology
Information Systems (B.S.)	Manufacturing & Construction Engineering Technology and Interior Design
Interior Design (B.S.)	Design
Mechanical Engineering (B.S.M.E.)	Computer and Electrical Engineering Technology & Information Systems and Technology
Mechanical Engineering Technology (B.S.)	Manufacturing & Construction Engineering Technology and Interior Design
Organizational Leadership and Supervision (B.S.)	Engineering
	Manufacturing & Construction Engineering Technology and Interior Design
	Organizational Leadership and Supervision

Certificate

Subject	*Department*
Advanced Microprocessors	Computer and Electrical Engineering Technology & Information Systems and Technology
Computer Controllec Systems	Computer and Electrical Engineering Technology & Information Systems and Technology
Computer Networking	Computer and Electrical Engineering Technology & Information Systems and Technology
Electronic Communications	Computer and Electrical Engineering Technology & Information Systems and Technology
Quality	Manufacturing & Construction Engineering Technology and Interior Design
Supervisory Leadership	Organizational Leadership and Supervision

Minor

Subject	*Department*
Computer Science	Computer Science
Electronics	Computer and Electrical Engineering Technology & Information Systems and Technology
Informatics	Computer Science
Information Systems	Computer and Electrical Engineering Technology & Information Systems and Technology
Organizational Leadership and Supervision	Organizational Leadership and Supervision

General Degree and Certificate Requirements

In addition to the academic regulations of IPFW (see Part 8), the following rules apply to students in the college. Where the college regulations are stricter than IPFW regulations, the college regulations apply.

Certificates and Associate Degrees

Requirements for certificates and Associate of Science degrees offered by the college are specified in the college's departmental listings.

Bachelor's Degrees

In addition to the requirements of IPFW (see Part 8) and those of your elected major, you must satisfy the following requirements of the College of Engineering, Technology, and Computer Science:

> Earn a minimum of 124 credits.
> Earn a graduation GPA of 2.00 or better in courses required for the major that are offered by the major department.
> Satisfactorily complete ENG W131 or an equivalent English composition course with a grade of C or better.
> Satisfactorily complete any additional degree requirements defined by individual departments based upon respective accrediting body criteria.

No credit toward graduation will be given for (a) courses or sequences considered to have overlapping content (see listings, College of Arts and Sciences) and (b) developmental courses such as ENG W129; and MA 109, 113.

Cooperative Education (Co-Op) and Related Programs

The college's departments offer many options for Cooperative Education experiences. Regular co-op positions, work-study internships, and practicum positions are available and many departments offer laboratory or teaching assistantships. You should check with your department for these opportunities.

College of Health and Human Services

Neff Hall 142 ~ 260-481-6967 ~*www.ipfw.edu/hhs/*

The mission of the College of Health and Human Services is to provide the highest quality education to future and current healthcare and hospitality practitioners by providing a learning environment that supports the development of culturally competent caring, compassionate, and accountable professional. Our undergraduate and graduate programs prepare graduates who are dedicated to the autonomy, dignity, and diversity of the people they serve.

The College is committed to excellence in teaching, service and scholarship and to the elimination of health disparities in our community. Our graduates will value lifelong learning and have a professional work ethic based on professional standards and best practices. The College of Health and Human Services specifically identifies and addresses the ever-changing health and hospitality needs of the community served by Indiana University-Purdue University Fort Wayne (IPFW) through service, leadership, and the development of knowledge.

Available degrees and certificates are listed below.

Associate of Science

Subject	*Department*
Dental Hygiene	Dental Education
Dental Laboratory Technology	Dental Education
Nursing	Nursing
Radiography	College of Health and Human Services

Bachelor of Science

Subject	*Department*
Hospitality Management	Consumer and Family Sciences
Human Services	Human Services
Nursing	Nursing

Certificate

Subject	*Department*
Critical Care Nursing	Nursing (Pending Curriculum Changes)
Dental Assisting	Dental Education

Minor

Subject	*Department*
Human Services	Human Services

Transfer Options

Subject	*Department*
*Child Development and Family Studies	Consumer and Family Sciences
~Clinical Laboratory Science	College of Health and Human Services
~Cytotechnology	College of Health and Human Services
*Dietetics	Consumer and Family Sciences
~Health Information Administration	College of Health and Human Services
~Medical Imaging Technology	College of Health and Human Services
~Nuclear Medicine	College of Health and Human Services
~Occupational Therapy	College of Health and Human Services
~Paramedic Sciences	College of Health and Human Services
~Physical Therapy	College of Health and Human Services
~Radiation Therapy	College of Health and Human Services
~Respiratory Therapy	College of Health and Human Services
*Retail Management	Consumer and Family Sciences

* Purdue-West Lafayette
~Indiana University-Indianapolis

To complete any of the above programs, you must fulfill the requirements of IPFW (see Part 8), the College of Health and Human Services, and the specific program. Where school or department regulations are stricter than IPFW regulations, the stricter regulations apply.

Academic Renewal Option

Many of the degree programs offered by the school provide the Academic Renewal Option for eligible students returning to IPFW after an absence of five or more years.

See your advisor before or during the first semester you return for additional details.

Special Academic Regulations for Students in the College of Health and Human Services

Professional, mature conduct is expected of all students. Any form of academic or personal misconduct is in direct conflict with professionalism and will result in dismissal from the program in which the student is enrolled. Please refer to the current IPFW *Bulletin* regarding "Code of Student Rights, Responsibilities, and Conduct."

The College of Health and Human Services chooses the most stringent course of action regarding misconduct. A student dismissed from his or her program will also be dismissed from the College of Health and Human Services.

Following University guidelines, after two years a student who has been expelled from IPFW may petition for readmission to the University, program, and College. This does not assure the student will gain readmission.

Criminal-record Screens are conducted in all health and human services majors. Agencies may not accept a student who has a criminal record. In addition, students who have a record of a sex crime against a child may not be placed into a clinical in which there is an actual or potential possibility that they will come into contact with children (IC 5-2-12-12). Students who cannot be placed into clinicals due to their criminal records may not be able to graduate from the program and are advised to pursue a nonclinical degree.

Technical Standards for Admission and Retention of Students

Nonacademic criteria (technical standards) that all applicants/students are expected to meet vary by degree program. These standards include the following five categories: (1) observation; (2) communication; (3) motor-function; (4) intellectual-conceptual, integrative and quantitative abilities and (5) behavior and social attributes. For more information visit our web site for technical standards at http://www.ipfw.edu/hhs/resources/standards.shtml.

College of Visual and Performing Arts

Visual Arts Building 102 ~ 260-481-6977 ~ www.ipfw.edu/vpa/

The mission of the IPFW College of Visual and Performing Arts is to (1) provide exceptional professional and liberal arts degree programs that combine development in an artistic discipline and career preparation in the arts to students through individualized instruction within a broadly based curriculum, (2) offer culturally enriching opportunities to all students and members of the university community, and (3) be recognized as the center for arts education, outreach, collaborations, and professional leadership in northeast Indiana as well as a major regional arts resource through excellence in artistic performances, productions, exhibitions, library holdings, and technology. To support this mission, the faculty of the college of Visual and Performing Arts subscribe to the highest academic, artistic, and ethical standards for themselves and their students.

The college is composed of the departments and program areas of fine arts, visual communication and design, music, and theatre and includes faculty associated with both Indiana University and Purdue University. More than 600 students majoring and minoring in the visual and performing arts receive instruction from professional and academic staff that include 32 full-time faculty, 9 half-time continuing lecturers, and more than 50 limited-term lecturers and visiting artists.

The college offers the following academic programs:

Associate of Science

Subject	Department/Program
Commercial Art	Visual Communication and Design

Bachelor's Degrees

Subject	Department/Program
Art Education (B.A.)	Fine Arts
Fine Arts (B.A. and B.F.A.)	Fine Arts
Fine Arts (B.F.A.)	Visual Communication and Design
Music (B.Mus. and B.S.)	Music
Music Education (B.Mus.Ed.)	Music
Music Therapy (B.S.M.T.)	Music
Theatre (B.A.)	Theatre
Theatre Teaching (B.A.)	Theatre

Certificate

Subject	Department/Program
Piano Pedagogy	Music

Minor

Subject	Department/Program
Art History	Fine Arts
Dance	Theatre
Music	Music
Studio Art	Fine Arts
Theatre	Theatre
Theatre Teaching	Theatre

The above programs are described in Part 5 of this *Bulletin*.

As a regularly admitted student, you must follow the degree requirements and the college and program academic regulations specified in the Bulletin in effect at the time you first enrolled in the college. If you wish to follow the degree requirements specified in a later edition of the Bulletin, you must consult with your departmental advisor.

Departments and program areas reserve the right to publish new academic requirements and regulations at the beginning of an academic year. If such changes occur, newly admitted students will be subject to the revised requirements.

Academic Renewal Option

The College of Visual and Performing Arts participates in the Academic Renewal Option for eligible students returning to IPFW after an absence of five or more years. See your advisor for additional information.

Division of Continuing Studies

Kettler Hall 145 ~ 260-481-6619 ~ www.ipfw.edu/dcs

The mission of the Division of Continuing Studies is to provide high-quality lifelong learning opportunities for the residents of northeast Indiana.

Course work from this division is offered for academic credit, corporate training, and personal and professional development. For the convenience of students and employers, programs are organized on and off campus and include distance learning via Internet and television.

The academic programs in the Division of Continuing Studies are listed below. Requirements for these programs appear in Part 5 of this *Bulletin*.

Subject	*Program*
General Studies	Associate of Arts in General Studies (A.A.G.S.)
General Studies	Bachelor of General Studies (B.G.S.)

Division of Labor Studies

Kettler Hall G28 ~ 260-481-6831 ~ www.labor.iu.edu

Through the Division of Labor Studies, Indiana University offers a Certificate in Labor Studies, a minor in labor studies, an Associate of Science in Labor Studies, and a Bachelor of Science in Labor Studies. Each combines work in a core of labor studies subjects with courses in other disciplines.

As a discipline, labor studies deals with work, the workplace, and workers and their organizations. It advances a body of knowledge that reflects the concerns of modern labor organizations.

As a program, labor studies enables participants to serve more effectively as members and leaders in their organizations. Participants can also gain a sense of the past and present contexts of work and unionism. Because union leaders need to be familiar with economics, communications, and other subjects, labor studies can assist them in mastering a broad range of learning.

The program encourages participants to make socially useful choices in carrying out the many responsibilities of union membership, union leadership, and community citizenship.

The Division of Labor Studies reports to IUPUI administration through the Indiana University School of Social Work.

Each labor-studies program enhances the knowledge and skills of those active in organized labor. Completion of a program enhances your ability to apply knowledge and skills in unions, government agencies, or educational institutions.

Admission For admission to any of these programs, you must apply directly to the labor-studies office.

General Program Requirements Both of the following degrees and the certificate in labor studies require satisfactory completion of 15 credits from among the Labor Studies Core and additional credits from among three Required Areas of Learning (see listings below). Courses in which you earn a grade of D will count only as electives.

Division of Public and Environmental Affairs

Neff Hall 260 ~ 260-481-6351 ~ www.ipfw.edu/spea/

The Division of Public and Environmental Affairs (DPEA) is a multidisciplinary division affiliated with the Indiana University School of Public and Environmental Affairs (SPEA). DPEA is organized as a professional division, committed to teaching, research, and service. DPEA offers a Bachelor of Science in Public Affairs (B.S.P.A.) degree program that provides a sound general baccalaureate education combined with specialized study. Additionally, DPEA offers minors in criminal justice and public affairs. DPEA's multidisciplinary faculty and curriculum address environmental, health, public policy, and management issues from a variety of perspectives.

The academic programs in the division are listed below. Requirements for these programs appear in Part 5 of this *Bulletin.*

Subject	*Program*
Criminal Justice	Minor
Public Affairs	Minor
Public Affairs: Criminal Justice	B.S.P.A.
Public Affairs: Environmental Policy	B.S.P.A.
Public Affairs: Health Services Administration	B.S.P.A.
Pubic Affairs: Legal Studies	B.S.P.A.
Public Affairs: Public Management	B.S.P.A.
Public Affairs: Specialized Study	B.S.P.A.
Risk and Emergency Management	Certificate

Admission

Admission to DPEA requires sophomore standing and a minimum cumulative grade-point average of 2.30, and completion of ENG W131, the required mathematics course, the computer literacy course(s), and the specific SPEA core course for the major. However, you may enter into the division as a pre-SPEA student as early as your freshman year. You must be in good academic standing (cumulative GPA of 2.00 or higher, core/concentration/major GPA of 2.30 or higher) to qualify for an internship and to graduate.

Special Academic Regulation for Students in Public and Environmental Affairs

Requirements for the undergraduate degree should be completed within 10 years of admission to SPEA. You may transfer no more than 90 credit hours (60 credits from a junior college) toward a Bachelor of Science degree program. A maximum of 10 credits will be awarded on the basis of military training toward any degree from DPEA. With prior

approval, you may take three courses totaling no more than 10 credit hours by correspondence through the IU Division of Extended Studies, Independent Study Program. However, you cannot satisfy a core, concentration, or major requirement by correspondence.

Good Standing in DPEA requires that you maintain a minimum semester and cumulative GPA of 2.00 and a minimum core/major GPA of 2.30. Therefore, you will be placed on academic probation if your semester, cumulative, or core/concentration GPA at the end of any regular semester is lower than these minimum standards. Once on probation, you may be dismissed from DPEA and IPFW if you fail to make significant progress toward good standing or if you fail to meet the minimum IPFW standards listed in Part 8 of this Bulletin.

DPEA Internships

As a DPEA major, you may earn a maximum of 12 hours of elective credit during your junior and senior years through the DPEA internship program, if you are a student in good standing and have obtained prior approval from the Internship Coordinator. Internships are strongly encouraged because they give you the opportunity to apply classroom theory and techniques to the real world and to network with professionals in your career field. The program is designed for maximum flexibility so that many valid learning experiences can qualify as internships. Internships can be full or part time, paid or unpaid, credit or noncredit. Interested students should contact the Coordinator of Advising and Student Services at the DPEA office for further information about internships.

Special Opportunities for Students in Public and Environmental Affairs

The IU School of Public and Environmental Affairs offers opportunities to study in Washington, D.C., through the Washington Leadership Program, as well as opportunities to study abroad through programs in The Netherlands and Australia. You should contact the DPEA office for current information about these programs.

The Accelerated Master's Program (AMP) is a competitive program for outstanding undergraduate DPEA students. If you have a GPA of 3.50 or higher, you may apply to the AMP program as early as your junior year. This program allows you to fulfill up to 24 credit hours toward the M.P.A. graduate program or 18 credit hours toward the M.P.M. graduate program by taking graduate-level SPEA courses during your senior year that can count toward both your undergraduate program and a future graduate degree program.

Richard T. Doermer School of Business and Management Sciences

Neff Hall 366 ~ 260-481-6472 ~ www.ipfw.edu/bms/

Note:

The Richard T. Doermer School of Business and Management Sciences is in the process of continual curriculum assessment and revision. Specific courses, programs, and degree requirements may change substantially during the life of a printed medium such as this *Bulletin*. You should consult your advisor about possible changes and opportunities.

General Information

The mission of the Richard T. Doermer School of Business and Management Sciences is to prepare students, primarily from northeast Indiana, for professional business careers of increasing responsibility and leadership in a global society.

To accomplish this mission, the role of the school's faculty, as a scholarly community, is

to develop and deliver high-quality instruction
to maintain a strong commitment to applied scholarship, with a secondary emphasis on instructional development and basic scholarship, all appearing in media of quality, and
to share its scholarly expertise with the business community, the profession, and other constituents.

The mission reflects a continuing commitment to the importance of learning in a changing environment, supported through the interdependence of teaching, intellectual contributions, and service.

Academic Programs

The academic programs in the school are listed below. Requirements for these programs appear in Part 5 of this *Bulletin*.

Subject	*Program*
Accounting	Post-Baccalaureate Certificate
Business	Bachelor of Science (B.S.B.)
Business	Associate of Science (A.S.B.)
Business Studies	Minor

School of Education

Neff Hall 250 ~ 260-481-4146 ~ www.ipfw.edu/educ

The mission of the School of Education is to prepare professionals in teaching, counseling, and leadership who demonstrate the capacity and willingness to continuously improve schools and related entities so that they become more effective with their clients by:

Becoming more caring, humane, and functional citizens in a global, multicultural, democratic society
Improving the human condition by creating positive learning environments
Becoming change agents by demonstrating reflective professional practice
Solving client problems through clear, creative analyses
Assessing client performance, creating and executing effective teaching, counseling, and educational leadership by utilizing a variety of methodologies reflecting current related research
Utilizing interdisciplinary scholarship, demonstrating technological and critical literacies, and effectively communicating with all stakeholders.

Concentration	*School Setting*
Elementary:	Elementary Primary and Intermdiate (K-6)
Secondary: Early Adolescence (EA)	Middle School/Junior High (6-8)

Select two content area minors: language arts, mathematics, science, social studies

| Adolescence/Young Adulthood (AYA) | Middle School/Jr. High and High School (6-12) |

Select one content area major: earth/space sciences, French, German, language arts, social studies, Spanish

The School of Education also offers minors/certifications in each of the content areas listed above and the following:

In addition the following teaching majors are available at IPFW through the following colleges:

Major	*College*
Art Education (P-12)	Visual and Performing Arts
Chemistry Teaching	Arts and Sciences
Life Sciences Teaching	Arts and Sciences
Mathematics Teaching	Arts and Sciences
Music Education (P-12)	Visual and Performing Arts
Physics	Arts and Sciences

Teaching majors can also be completed as a part of the following B.A./B.S. programs:

Major	*College*
English	Arts and Sciences
French	Arts and Sciences
German	Arts and Sciences
Spanish	Arts and Sciences

Transition to Teaching

The School of Education also has an alternative route to teacher certification called Transition to Teaching for students who have already earned a baccalaureate degree. This one-year intense program offers teacher certification for elementary and secondary licensure at the graduate level. For a list of qualifications, prerequisites, course requirements, and general information, please contact the School of Education's Student Information Center (Neff 243).

Unit of Affiliated Programs

Office of Academic Affairs

Departments

Accounting and Finance

Program: B.S.
Department of Accounting and Finance
Richard T. Doermer School of Business and Management Sciences

Neff Hall Room 350 ~ 260-481-6471 ~ www.ipfw.edu/bms

Anthropology

Department of Anthropology
College of Arts and Sciences

Kettler Hall G11A ~ 260-481-6272 ~ www.ipfw.edu/anthropology

Courses in anthropology provide an understanding of the nature of cultures and help you assess various explanations of human behavior; they also assist in the development of analytical and critical abilities. The curriculum is structured to include studies in the history and theory of anthropology, in four anthropological fields (ethnology, archeology, bioanthropology, and linguistics), in at least two different world ethnographic areas, and in topical specializations. The program helps you prepare for graduate study, for teaching, and for careers in which the understanding of various cultures is an asset.

Although a minor is not required for the B.A. with a major in anthropology, an outside concentration is recommended. Fifteen credits in history, political science, psychology, or sociology support the concentration.

Biology

Department of Biology
College of Arts and Sciences

Science Building 330 ~ 260-481-6305 ~ www.ipfw.edu/bio

The study of biology helps you prepare for careers in research, teaching, industry, government, medicine, medical technology, and several other health-related fields. More than half of all graduates earning a B.S. in biology from IPFW go on to graduate studies, either for advanced degrees or for professional certification.

Biology is among the most interdisciplinary of all sciences and requires a broad background in chemistry, physics, and mathematics, as well as biology. This background enables biologists to study the evolution of life; the manifestations of life from the level of viruses, bacteria, and individual cells to the structure and function of organisms; and the interactions of living organisms with each other and with their environments.

The Department of Biology has extensive facilities for its teaching and research programs, and its 15 faculty represent many different fields within biology. Interested students can participate in research projects or in other forms of scholarly activity with individual faculty members (see Special Assignments in Biology under Options in Biology, below).

An Associate of Arts with a concentration in biology is described under Arts and Sciences in Part 5 of this *Bulletin*. A related program leading to a B.S. is available: life science teaching certification. This is described later in this part of the *Bulletin*. A minor in biology is also available.

Special Regulation for Biology Majors

Time Limit - All biology courses applied toward graduation must be completed within 10 years from the time the first biology course was completed.

Options in Biology

Preprofessional Study

Preprofessional students — those seeking careers in chiropractic, dentistry, medicine, optometry, osteopathy, physical therapy, podiatry, or veterinary medicine — should consult with their preprofessional advisor before deciding what specific elective courses in biology to take. Under exceptional circumstances, it may be possible for a biology major to begin professional school after completing three years of undergraduate work at IPFW and to receive credit for the final year after completing the first year of professional school. The B.S. is then awarded after the first year of professional school is completed. Detailed and early planning is necessary.

Medical Technology Preparation

After graduating with a Biology degree from IPFW, students may wish to participate in Medical Technology programs that have been certified by Purdue University, such as Parkview Hospital in Fort Wayne. Interested students should work with their advisor to make sure that they fulfill not only the requirements of the biology program, but also the prerequisites of the Medical Technology program. for example, Parkview Hospital currently requires Immunobiology and General Microbiology.

Special Assignments

Students who qualify may elect to do an independent project supervised by a faculty member. With the permission of the faculty member and the department chair, the student can enroll in BIOL 19500, BIOL 29500 or BIOL 59500. The student must work closely with the faculty member to design and complete the project. Credits earned in these courses cannot be used to satisfy A/B-elective requirements, and a maximum of 6 such credits can be used toward graduation as general elective credits.

Cooperative Education (Co-op) Program

Co-op is designed to provide employment experience in an area of your academic interest while you are still enrolled in school. A co-op experience may be repeated. You may earn up to 2 elective credits toward your degree.

Honors Degree in Biology

You may earn an honors degree in biology by achieving an overall GPA of 3.00 or higher and a biology GPA of 3.50 or higher, conducting a two-semester (6-credit) research project, preparing a senior thesis based on the research project, and giving an oral presentation of the thesis research. The senior thesis committee must be established one semester before graduation.

Business and Management

SBMS Undergraduate Student Affairs Center
Richard T. Doermer School of Business and Management Sciences

Neff Hall 366 ~ 260-481-6472 ~ www.ipfw.edu/bms

Academic programs leading to degrees in business address the growing need for broadly education peole who have demonstrated high levels of competence in the theories, concepts, and skills of commerce. The Associate of Science and bachelor of Science business programs are founded on the principle that a university education for business provides the best preparation for successful careers in today's and tommorrow's dynamic, rapidly changing economic environment.

Course Waivers

You may be eligible for waivers of course requirements based upon academic courses taken as part of your bachelor's program if those courses were completed within the past five calendar years.

Special Academic Regulations for Students in Undergraduate Business Programs

Following are the general policies and procedures for students enrolled in business undergraduate programs. In addition to the policies of IPFW (see Part 8), these are intended to maintain the historically high academic standards of undergraduate business programs at IPFW.

Regulations Applying to All Business Undergraduates

The Student's Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

Academic Renewal Option

The school participates in the Academic Renewal Option for eligible students returning to IPFW after an absence of five or more years. Information about this option appears in Part 8 of this Bulletin.

Maximum Enrollment

The maximum number of credits for which you may enroll during a regular semester is 21. If you wish to enroll for more than 17 credits during a regular semester or more than 6 during a summer session, you must (1) have attained at least sophomore standing and (2) have earned a cumulative GPA of 3.00 or higher. If you qualify and desire to enroll for more than 17 credits during a semester, you must have your status verified and your request approved by your advisor.

Overlapping Courses

You may not count toward graduation any courses or sequences considered to have overlapping content. A list of overlapping courses appears in Part 4 of this Bulletin under the College of Arts and Sciences.

Pass/Not-Pass Grades

This option is available only for courses considered to be elective. You may take up to two courses each semester for a grade of P/NP with a maximum of two such courses each academic year (fall, spring, and summer). You may apply a

maximum of 12 credits of pass/not-pass grades toward a bachelor's degree or a maximum of 6 credits toward an associate degree.

Credit by Self-Acquired Competency

IPFW business programs do not award credit for self-acquired competency (experiential credit). Credit awarded on this basis, regardless of its sources, will not apply toward IPFW business degrees.

Academic Probation

You are on academic probation upon completion of a semester or summer session in which you fail to earn a semester GPA of 2.00 or higher. Your university grade report will serve as notification of your probationary status.

Academic Dismissal

You are dismissed from the degree program immediately upon completion of a semester or summer session that results in your cumulative GPA falling below 2.00. Dismissal will not necessarily be preceded by a formal warning, especially if your prior academic work does not indicate a critical situation. Upon verification of your ineligible status, you will be formally notified and given an adequate amount of time to withdraw from any classes for which you are ineligible. Following that, you will be administratively dropped from the specified class(es).

Application for the Degree

At least two weeks before you register for the semester or summer session during which you will complete all requirements for your program, you must inform the school of your intention to graduate. Degree application forms and related instructions are available at the school's Undergraduate Student Affairs Center, Neff 366. Unless you have submitted a degree application by this deadline, your records will not be audited for graduation and you cannot register as a degree candidate.

Additional Regulation Applying to Undergraduates in the A.S.B. Program

Time Limit for Completion of A.S.B.

It is the school's intention that you possess the most current knowledge and skills when you complete the A.S.B. Because of this, you are allowed a maximum of eight regular semesters (four calendar years) to complete this degree. This begins with the semester you are regularly admitted to IPFW. If more than eight regular semesters have elapsed since your admission, you will be required to meet the degree requirements specified in the most current IPFW Bulletin.

Additional Regulations Applying to Undergraduates in the B.S.B. Program

Transfer Credit.

If you transfer from another school to IPFW, you will be granted credit toward a business degree only for courses considered to be equivalent to IPFW courses required in the business programs.

Generally, courses in basic business and economics subjects (freshman- and sophomore-level courses) will be accepted as equivalent only if they are being transferred from regionally accredited institutions.

Courses in advanced business and economics subjects that you have taken at another school during your freshman or sophomore years generally will not be accepted as equivalent to business or economics courses that are available to only juniors and seniors at IPFW. These may be used only as elective credit.

Courses in advanced business and economics subjects that you have taken as a junior or senior within the last four calendar years will be considered equivalent only if the business degree program from which they transfer is accredited by the International Association for Management Education (AACSB).

Requests for equivalency validation of 300/400-level business and economics courses will be considered only after you have been formally admitted to the B.S.B. program and you have provided the SBMS Student Affairs Center (Neff 366) with an official copy of your Indiana University credit-transfer report. Forms for requesting transfer-course equivalency are available at this location.

At least 50 percent of required business and economics credits must be completed at IPFW.

Correspondence Study.

No more than 6 credits earned through correspondence study will be counted toward your undergraduate degree. Business or economics courses taken by correspondence will not apply to undergraduate business degrees. You will not be permitted to enroll for credit in a correspondence-study course during any semester in which you are enrolled for 15 or more credits.

Credit by Examination.

Under very limited circumstances and subject to the following policies, you may be permitted to earn credit by means of a special examination:

Credit examinations are not provided for business or economics courses numbered 300 and above.

In all cases, your eligibility for a credit examination (for business courses numbered below 300); the type of examination; testing procedures, date, time, and location; and evaluation of your performance are the decision of the appropriate IPFW business or economics department. The decision of the department is final.

Credits earned by examination cannot exceed 10 percent of your total degree requirements.

You may attempt an authorized credit examination only once.

Only those examination scores that equate to a C grade or better will be considered. Only the grade S will be reported for credit earned by examination.

Use of Physical Education Credits.

You may use a maximum of 4 credits of physical education (HPER) courses as elective credits. Grades earned are included in your cumulative GPA.

Time Limit.

To ensure that you will be professionally competitive with other members of your graduating class, you may complete the degree requirements specified in the Bulletin in effect at the time you were formally admitted to the degree program only if

Progress toward your degree objective has been continuous. If you have not registered for degree-applicable courses as an IPFW business major for a period of one calendar year, you will be considered as not progressing toward your original degree objective. Subsequently, if you qualify for re-entry to an undergraduate business program at IPFW, you must satisfy the admission and degree requirements specified in the IPFW Bulletin that includes your year of re-entry.

No more than four years have elapsed since your admission to the business degree program. If more than four years have elapsed, your cumulative academic record will be reviewed by the appropriate business or economics department, and you will be required to meet the degree criteria specified in the current IPFW Bulletin. This may result in your having to repeat those courses in which the original content is determined to be outdated.

The necessary courses or degree programs are available. If the courses that were required at the time of your formal admission to the business degree program are no longer available, you must complete the current replacements for those courses. Should these newer courses require prerequisites you have not taken, you must also enroll for these prerequisites in the appropriate sequence.

Arts and Science Minors.

B.S.B. candidates are encouraged to complete the requirements for minors available through the IPFW School of Arts and Sciences (see Part 4). Completion of your minor will be documented on your official transcript. No more than two minors will be shown.

Special Academic Regulations for P.B.A. Students

Performance Standards With the exception of the minimum GPA for retention, P.B.A. students are held to the performance standards specified for students in undergraduate business programs.

Chemistry

Department of Chemistry
College of Arts and Sciences

Science Building 496 ~ 260-481-6289 ~ www.ipfw.edu/chem

The Department of Chemistry offers an associate and two bachelor's degree programs: the Associate of Science (A.S.) with a major in chemical methods (listed earlier in this *Bulletin*), the Bachelor of Science (B.S.) with a major in chemistry, and the Bachelor of Science in Chemistry (B.S.C.). Students pursuing one of these bachelor's programs may also be interested in the physical science teaching certification (listed separately in this *Bulletin*).

Communication

Department of Communication
College of Arts and Sciences

Neff Hall 230 ~ 260-481-6825 ~ www.ipfw.edu/comm/

The Department of Communication offers related bachelor's degree programs in media and public communication and in speech communication teaching and a minor in media production for those students who want more courses in practical skills.

Communication Sciences and Disorders

Communication Sciences and Disorders
College of Arts and Sciences

Neff Hall 279 ~ 260-481-6410 ~ www.ipfw.edu/csd

Computer and Electrical Engineering Technology & Information Systems and Technology

Department of Computer and Electrical Engineering Technology & Information Systems and Technology
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 205 ~ 260-481-6338 ~ www.ecet.ipfw.edu

The Department of Computer and Electrical Engineering Technology & Information Systems and Technology (CEIT) offers the Bachelor of Science with a major in computer engineering technology (CPET), the Associate of Science and Bachelor of Science with a major in electrical engineering technology (EET), and the Associate of Science and Bachelor of Science in Information Systems (IS). The CPET and EET programs prepare students for careers as professionals in many areas involving computer systems and electronics, including hardware and software support of industrial and business related electronic and computer systems, industrial networking, Internet and networking control, computer systems, instrumentation, and other emerging technical areas. The IS programs focus on understanding the fundamentals of the discipline of information systems programming, data structure design, business data processing, computer architecture, data communication, and database systems. CPET and EET graduates have titles such as electrical or computer engineer, electrical technologist, computer support specialist, networking support specialist, automation engineer, applications engineer, telecommunications engineer, network support technician/engineer, and network administrator. IS graduates have titles in the fields of information systems such as analyst, programmer, system specialist, administrator, manager, and supervisor. The department has more than 1,100 alumni who hold technical and managerial positions nationwide.

The Associate and Bachelor of Science degrees in Electrical Engineering Technology are accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology Inc. (TAC/ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone 410-347-7700. In addition to the degree programs, the department also offers a minor in electronics, in information systems and certificate programs in advanced microprocessors, computer controlled systems, electronics communications, and computer networking.

Mission

The mission of the department is to offer high-quality undergraduate, graduate, and certificate programs in the areas of EET, CPET, IS and IT. These programs meet regional needs and include credit and noncredit education in areas related to electrical, computer, and information systems and technology. The department seeks to advance and share technical knowledge through teaching and creative endeavors, and to work with regional industries to develop and increase technically knowledgeable human resources.

Computer Science

Department of Computer Science
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 125 ~ 260-481-6803 ~ www.cs.ipfw.edu

Mission

The department strives to offer students excellent instruction and educational opportunities in computer science and applied computer science.

It endeavors to provide its students a durable technical foundation in an environment of rapid technical change, to enable and promote their professional growth through contact with the best professional practice, and to play a role of resource and technical leadership in the regional communities.

Program Objectives

Graduates of the undergraduate programs must be able to:

Analyze, design, implement, and evaluate a computerized solution to a real-life problem using appropriate tools.
Communicate effectively through speaking, writing, and the use of presentation tools.
Work effectively as a team member.
Enter a professional computer science/information systems position or an appropriate graduate program.
Pursue lifelong learning and continued professional development.
Be aware of ethical and societal concerns relating to computers in society and apply this knowledge in the conduct of their careers.

Note:

Two bachelor's programs in computer science are offered: a B.A. and a B.S. You should review both programs before selecting one.

The degree programs in computer science provide a strong background to students interested in developing software for diverse computer applications. Preparation includes an understanding of programming and problem solving, data abstraction, computer hardware organization, operating systems, programming language design and translation, and development of large-scale software systems.

Consumer and Family Sciences

College of Health and Human Services

Neff Hall 330 ~ 260-481-6562 ~ www.ipfw.edu/cfs

The department of Consumer and Family Sciences offers courses in Hospitality Management (HM), Nutrition and Couple and Family Relations which are described in Part 5 of the bulletin. The department offers a Bachelor of Science with a major in Hospitality Management.

Dental Education

Department of Dental Education
College of Health and Human Services

Neff Hall 150 ~ 260-481-6837 ~ www.ipfw.edu/dental

Special Academic Regulations for Students in Dental Assisting

Attendance

Because of the experiential learning process used in all dental assisting courses, class attendance is essential and mandatory. Some evening hours are required for additional clinical experiences and professional association meetings.

Physicals and Immunizations

Before beginning clinical courses, students must submit evidence that they have (1) completed an annual physical examination, (2) obtained the required immunizations, (3) completed TB testing, (4) received hepatitis B immunizations and Hepatitis B titer, and (5) hold a current CPR certification at the professional healthcare-provider level with the American Heart Association or the American Red Cross.

Please see Part 5 of the *Bulletin*, College of Health and Human Services Special Academic Regulation for students in health sciences, regarding student withdrawal and criminal records checks.

Special Academic Regulations for Students in Dental Hygiene

Attendance

Class attendance is essential and mandatory because of the experiential learning process used in all dental hygiene courses. Some evening hours are required for additional clinical experiences and professional association meetings.

Physicals and Immunizations

Before beginning clinical courses, students must submit evidence that they have (1) completed an annual physical examination, (2) obtained the required immunizations, (3) completed TB testing, (4) received hepatitis B immunizations, and (5) hold current CPR certification at the professional healthcare-provider level.

Please see Part 5 of the *Bulletin*, College of Health and Human Services Special Academic Regulation for Students in Health Sciences, regarding student withdrawal and criminal records checks.

Economics

Program: B.S.
Department of Economics
Richard T. Doermer School of Business and Management Sciences

Neff Hall Room 340 ~ 260-481-6794 ~ www.ipfw.edu/bms

Educational Studies

Department of Educational Studies
School of Education

Neff Hall 250 ~ 260-481-6441 ~ http://www.ipfw.edu.educ

Elementary Education

Special Academic Regulations for Students in Elementary Education

In addition to the academic regulations of IPFW (see Part 8), the following rules apply to elementary education students.

GPA Requirements

Students with a cumulative GPA of 2.50 or higher are automatically admitted to the school. Students with a GPA of 2.00–2.49 who wish to transfer into the school or change their major may be admitted as education premajors. These students will not be eligible for admission to teacher education until they achieve a cumulative GPA of 2.50 or higher.

Developmental Courses

No credit toward graduation is awarded for ENG W129; or MA 109 or 113.

Pass/Not-Pass Option

Permission to elect this option must be requested on a form available from the School of Education. Permission will be granted only if the course will not be used to fulfill any degree requirements other than total credits for the degree.

Correspondence Courses

The school approves limited numbers of credits earned by correspondence study. You may not use more than 18 credits of correspondence courses toward the degree.

Admission to Block 1

In order to be admitted into Block 1, you must earn a B or better in the following courses: COM 114, ENG W131, ENG W233, and EDUC W200/M101. You must earn a C or better in the following courses: MA 101, EDUC F200, CSD 115, EDUC P250/M101 and EDUC Q200. You must pass the Pre-Professional Skills Test (PPST). You must complete 45 credits with a cumulative GPA of 2.50 including all coursework from previously attended institutions.

For the bachelor's degree, you must complete each course in the education blocks 1, 2, and 3 with a grade of C or better. In blocks 2 and 3 you must have an overall GPA of 2.50 or higher in each block. Elementary education students must complete each general education area with a GPA of 2.00 or higher. Grades earned in each teaching minor and/or concentration must average 2.50 or higher. You must have earned a cumulative GPA of 2.50 or higher to be eligible to receive a B.S.Ed.

Academic Fresh Start

The school has an academic fresh start option to assist students who are returning to college after an absence of five or more years. The policy permits students' recent college performance to determine the GPA required for admission into teacher education.

You must apply for this option after the completion of 12 credits following the admission/readmission to IPFW. For further information, consult with your academic advisor or visit the School of Education Licensing and Advising Center, Neff 243.

Upper-Division Courses

You must complete at least 35 credits at the 300–400 level.

Deadlines

Before you student teach, it is strongly recommended that you complete a speech and hearing examination prescribed by the School of Education. During the senior year, you must file an application for your degree.

Resident Study

You must complete your final 32 credits at IPFW, with at least 12 of these credits in professional education courses.

Teacher Licensure

To be eligible for initial teacher licensure, you must complete the elementary education requirements for a bachelor's degree, pass the Praxis I and Praxis II exams, complete a CPR certification, and apply for the license.

Early Field Experience Program

If you are pursuing a B.S. in elementary education, you are required to participate in the prescribed field-experience program. Field-experience courses are numbered M101, M201, M301, and M401 and must be taken as shown in the degree-requirements listings.

This distinctive program provides an organized series of courses designed to integrate all professional education courses with field experiences. The program allows you repeated opportunities to participate with teachers/pupils in classrooms. In the early part of your field-experience program, you are introduced to teaching, educational concerns, goal setting, and professionalism.

Student Teaching

All students expecting to student teach should schedule an appointment and file a completed application in the office of Student Teaching, Neff 243, one year before you plan to student teach. Appointments are available between October to December for students who plan to student teach in the fall semester or January to March for students who plan to student teach in the spring semester. Please do not submit an application unless you actually intend to complete your student teaching during the upcoming school year. Exact dates are available by contacting the office of Student Teaching (Neff 243, 260-481-6457).

Portfolio

All students seeking initial teacher certification must complete and submit a portfolio for assessment. The portfolio is based upon the Interstate New Teachers Assessment and Support Consortium (INTASC) Standards and is used to assess a teacher candidate's knowledge and mastery of the standards. Portfolio checkpoints are seen throughout the program of study with a final assessment taken during the student teaching semester.

Secondary Education

Special Academic Regulations for Students in Secondary Education

In addition to the academic regulations of IPFW (see Part 8), the following rules apply to secondary education students.

GPA Requirements

Students with a cumulative GPA of 2.50 or higher are automatically admitted to the school. Students with a GPA of 2.00–2.49 who wish to transfer into the school or change their major may be admitted as education premajors. These students will not be eligible for admission to teacher education until they achieve a cumulative GPA of 2.50 or higher.

Developmental Courses

No credit toward graduation is awarded for ENG W129; or MA 109 or 113.

Pass/Not-Pass Option

Permission to elect this option must be requested on a form available from the School of Education. Permission will be granted only if the course will not be used to fulfill any degree requirements other than total credits for the degree.

Correspondence Courses

The school approves limited numbers of credits earned by correspondence study. You may not use more than 18 credits of correspondence courses toward the degree.

Admission to Block 1

In order to be admitted into Block 1 you must earn a B or better in the following courses: ENG W131, COM 114, and EDUC W200. You must earn a C or better in the following courses: EDUC K201 and a quantitative reasoning (math) course, and you must pass EDUA F300. You must pass the Pre-Professional Skills Test (PPST). You must complete 45 credits with a cumulative GPA of 2.50.

For the bachelor's degree, you must complete each course in the education Blocks 1 and 2 with a grade of C or better. In Block 2 you must have an overall GPA of 2.50 or higher. Secondary education students must complete each general education area with a GPA of 2.00 or higher. Grades earned in each teaching major and/or minor must average 2.50 or higher. You must have earned a cumulative GPA of 2.50 or higher to be eligible to receive a B.S.Ed.

Academic Fresh Start

The school has an academic fresh start option to assist students who are returning to college after an absence of five or more years. The policy permits students' recent college performance to determine the GPA required for admission into teacher education.

You must apply for this option after the completion of 12 credits following admission/readmission to IPFW. For further information, consult with your academic advisor or visit the School of Education Licensing and Advising Center, Neff 243.

Upper-Division Courses

You must complete at least 35 credits at the 300-400 level.

Deadlines

Before you student teach, it is strongly recommended that you complete a speech and hearing examination prescribed by the School of Education. During the senior year, you must file an application for your degree.

Resident Study

You must complete your final 32 credits at IPFW, with at least 12 of these credits in professional education courses.

Teacher Licensure

To be eligible for initial teacher licensure, you must complete the secondary education requirements for a bachelor's degree, pass the Praxis I and Praxis II exams, complete a CPR certificate, submit a satisfactory portfolio (see below), and apply for the license.

Early Field Experience Program

If you are pursuing a B.S. in secondary education, you are required to participate in the prescribed field-experience program. Field-experience courses are numbered M101, M201, M301, and M401 and must be taken as shown in the degree-requirements listings.

This distinctive program provides an organized series of courses designed to integrate all professional education courses with field experiences. The program allows you repeated opportunities to participate with teachers/pupils in classrooms.

In the early part of your field-experience program, you are introduced to teaching, educational concerns, goal setting, and professionalism.

Student Teaching

All students expecting to student teach should schedule an appointment and file a completed application in the office of Student Teaching, Neff 243, one year before you plan to student teach. Appointments are available between October to December for students who plan to student teach in the fall semester, or January to March for students who plan to student teach in the spring semester. Please do not submit an application unless you actually intend to complete your student teaching during the upcoming school year. Exact dates are available by contacting the office of Student Teaching (Neff 243, 260-481-6457).

Portfolio

All students seeking initial teacher certification must complete and submit a portfolio for assessment. The portfolio is based upon the Interstate New Teachers Assessment and Support Consortium (INTASC) standards and is used to assess a teacher candidate's knowledge and mastery of the standards. Portfolio checkpoints are seen throughout the program of study with a final assessment taken during the student teaching semester.

Early Childhood Education

Special Academic Reguations for Students in Early Childhood Education

In addition to the academic regulations of IPFW (see Part 8), the following rules apply to early childhood students.

Developmental Courses

No credit toward graduation is awarded for ENG W129; or MA 109 or 113.

Pass/Not-Pass Option

Permission to elect this option must be requested on a form available from the School of Education. Permission will be granted only if the course will not be used to fulfill any degree requirements other than total credits for the degree. A.S. students are limited to two courses under this option.

Correspondence Courses

A.S. students may not use more than 9 credits of correspondence courses credit toward the degree.

Grades

You must complete each professional education course with a grade of C or better. You must have earned a cumulative GPA of 2.00 or higher to be eligible to receive the A.S.

Academic Fresh Start

The school has an academic fresh start option to assist students who are returning to college after an absence of five or more years. The policy permits students' recent college performance to determine the GPA required for admission into teacher education.

You must apply for this option after the completion of 12 credits following admission/readmission to IPFW. For further information, consult with your academic advisor or visit the School of Education Licensing and Advising Center, Neff 243.

Resident Study

You must complete your final 32 credits at IPFW, with at least 12 of these credits in professional education courses.

Engineering

Department of Engineering
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 327 ~ 260-481-6362 ~ www.engr.ipfw.edu

IPFW offers bachelor's programs in civil engineering, computer engineering, electrical engineering, and mechanical engineering. The computer, electrical, and mechanical engineering programs are accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology Inc. (EAC/ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone 410-347-7700. The civil engineering program is new (fall 2006) and is not yet eligible for ABET accreditation.

Studies in engineering emphasize the practical and analytical aspects of engineering by combining laboratory and lecture courses in the sciences, humanities, and engineering sciences.

Mission

The mission of the Department of Engineering is to support the needs of Northeast Indiana through education, scholarship, and service. We are committed to providing quality educational opportunities to both traditional and non-traditional students and seek to equip our students with the knowledge, skills, and experience to pursue productive engineering careers. Our faculty is also dedicated to excellence in scholarship and service to the community and the profession.

Educational Objectives

The faculty of the engineering department at IPFW is committed to continuous improvements in its engineering programs. As such, the faculty continues to work with the alumni, their employers, and the Industrial Advisory Board to realize the following educational objectives:

Prepare students for successful careers in industry.
Develop student expertise in the synthesis process, with an emphasis on product design.
Provide the opportunity for students to work as a team on multidisciplinary projects.
Ensure students have a sound foundation in the mathematical, scientific, and engineering fundamentals.
Promote the importance of professional ethics, value of professional registration, lifelong learning, and professional development.

Admission

To gain admission to the engineering programs, in addition to satisfying IPFW admission requirements (see Part 8) you should rank in the upper half of your high school class and have the following courses on your record:

Subject	Semesters
Algebra	4
Biology or physics	2
Chemistry	2
English	8
Plane geometry	2
Trigonometry	1

Additionally, you must have a minimum SAT critical reading score of 480, an SAT mathematics score of 520, and an SAT writing score of 500 or a minimum ACT composite score of 21 (with at least an English score of 20 and a mathemetics score of 23) for admission to freshman engineering. If you only partially meet the above requirements, you may be admitted to IPFW in a pre-engineering status while taking courses that will prepare you for admission to an engineering program.

Admission deadlines for the Department of Engineering are:

Aug. 1 for the fall semester.
Dec. 15 for the spring semester.
May 1 for Summer Session I.
June 15 for Summer Session II.

Special Academic Regulations for Students in the Department of Engineering

Plan of Study

A one-year plan of study must be approved by your academic advisor every semester to ensure that you are making progress towards graduation.

Concentration Course Grades

You must have a combined GPA of at least 2.00 in all engineering courses and in any other courses used to fulfill technical-elective requirements. It is your responsibility to see that this requirement is met. Even though the grade of D is accepted as a passing grade (except in COM 114, ENG W131, and all mathematics courses where a grade of C or better is required), it is highly recommended that the course be repeated if it serves as a prerequisite to another required course.

Engineering, Technology, and Computer Science

English and Linguistics

Department of English and Linguistics
College of Arts and Sciences

Liberal Arts Building 145 ~ 260-481-6841 ~ www.ipfw.edu/engl

The Department of English and Linguistics offers courses in all periods of British and American literature; in special topics, such as children's literature; and in writing, film study, linguistics, folklore, and mythology. Degree programs in English and minors in creative writing, English, folklore, linguistics, and professional writing are designed for students who desire a humanistic education. The program in English offers excellent preparation for many different careers. Literary study provides a basis for understanding various forms of cultural expression; writing skills are a powerful tool in an age dominated by information technologies; linguistics teaches the structure and function of language; folklore introduces the student to voices otherwise neglected by the dominant culture. The Bachelor of Arts with a major in English is appropriate for someone who wishes to enter a graduate or professional school. Degree options also prepare students for careers in teaching, writing, and business communications.

An Associate of Arts with a concentration in English, offered by the College of Arts and Sciences, is described in Part 5 of this *Bulletin*.

Fine Arts

Department of Fine Arts
College of Visual and Performing Arts

Visual Arts Building 117 ~ 260-481-6705 ~ www.ipfw.edu/vpa/finearts

The mission of the Department of Fine Arts is to educate its students and the community in fine art. Degrees offered by the Fine Arts Department are a Bachelor of Arts, a Bachelor of Fine Arts, a Bachelor of Arts in art education, and a fine arts minor. A minor in art history is described elsewhere in this part of the *Bulletin*.

Transfer Credit

All studio art and art history courses transferred from another institution or campus must be evaluated by an appropriate faculty member in the fine arts program before they may be applied to the B.A.

Residence Requirements

At least 33 credit hours including art methods courses must be completed on the IPFW campus.

Special Academic Regulations

Enrollment Policy To ensure that degree-seeking students are guaranteed priority registration in their classes, the following policies will be observed:

Students who are not progressing toward completion of degree requirements, including students who have graduated but wish to continue a program of study, will be reclassified as nondegree–seeking. These students' registrations will not be processed until the final week before the beginning of each semester. This

policy will allow these students an opportunity to avail themselves of classroom opportunities when space is available.

All 400-level studio courses may be repeated up to a maximum of 18 credits. This long-standing policy is based upon the rationale that six semesters of study at that level in one discipline is sufficient for undergraduate training.

Independent-study courses are available for students with at least junior standing to pursue studio interests not served in other course offerings. Independent-study courses may be arranged with the appropriate faculty member on the basis of a viable course of study, a reasonable load for the instructor, and space availability. Priority will be given to degree-seeking students and to classes with regularly scheduled meetings.

Prerequisites for 200-level studio courses may be waived by the appropriate instructor during the week before classes begin, contingent upon space availability. Completion of all prerequisites is required to continue with classes beyond 6 credits in that discipline.

Credit Transfer If you transfer art credits from another college or university, you may be admitted to the B.F.A. or foundation program upon a successful portfolio presentation. To earn the B.F.A. at IPFW, you must fulfill all remaining requirements and complete a minimum of 24 credits of upper-division studio work at IPFW.

Time Limit If you do not complete degree requirements within seven years of matriculation, you may be required to meet the degree requirements specified in the current *Bulletin*.

Student Handbook A departmental student handbook, consisting of policies and regulations of the Department of Fine Arts, has been prepared as a guide for students. This handbook, available in the department office, provides detailed information about responsibilities and a sample curriculum for each degree. All fine arts majors are expected to be familiar with the contents of this handbook.

Bachelor of Fine Arts

Recommendations

Students should schedule classes within the B.F.A. program under the guidance of a visual arts advisor.

Residence Requirements

For a bachelor's degree, registration in and completion of at least 33 credits of resident course credit at the 200 level or above, including at least 15 credits at the 300 level or above, in courses applicable to the major.

Transferred Credit

All studio art and art history courses transferred from another institution or campus must be evaluated by an appropriate faculty member in the Fine Arts Program before they may be applied to a major in fine arts. See Transfer Credit Review.

Transfer Credit Review

Courses in studio art that have been transferred to IPFW from another institution or campus are not counted as part of the fine arts major unless they have been reviewed by the fine arts faculty. For a review of transferred studio credit, the student should provide the reviewer with a portfolio consisting of representative work in each area (e.g., painting, sculpture, etc.) for which transfer credit is desired. The portfolio should include both studies and finished work and be as complete as possible.

Minor in Fine Arts

Resident Requirements

Completion of at least 6 resident credits at the 200 level or above is required for the minor.

Special Academic Regulations

Enrollment Policy To ensure that degree-seeking students are guaranteed priority registration in their classes, the following policies will be observed:

Students who are not progressing toward completion of degree requirements, including students who have graduated but wish to continue a program of study, will be reclassified as nondegree–seeking. These students' registrations will not be processed until the final week before the beginning of each semester. This policy will allow these students an opportunity to avail themselves of classroom opportunities when space is available.

All 400-level studio courses may be repeated up to a maximum of 18 credits. This long-standing policy is based upon the rationale that six semesters of study at that level in one discipline is sufficient for undergraduate training.

Independent-study courses are available for students with at least junior standing to pursue studio interests not served in other course offerings. Independent-study courses may be arranged with the appropriate faculty member on the basis of a viable course of study, a reasonable load for the instructor, and space availability. Priority will be given to degree-seeking students and to classes with regularly scheduled meetings.

Prerequisites for 200-level studio courses may be waived by the appropriate instructor during the week before classes begin, contingent upon space availability. Completion of all prerequisites is required to continue with classes beyond 6 credits in that discipline.

Credit Transfer If you transfer art credits from another college or university, you may be admitted to the B.F.A. or foundation program upon a successful portfolio presentation. To earn the B.F.A. at IPFW, you must fulfill all remaining requirements and complete a minimum of 24 credits of upper-division studio work at IPFW.

Time Limit If you do not complete degree requirements within seven years of matriculation, you may be required to meet the degree requirements specified in the current Bulletin.

Student Handbook A departmental student handbook, consisting of policies and regulations of the Department of Fine Arts, has been prepared as a guide for students. This handbook, available in the department office, provides detailed information about responsibilities and a sample curriculum for each degree. All fine arts majors are expected to be familiar with the contents of this handbook.

Geosciences

Department of Geosciences
College of Arts and Sciences

Science Building 230 ~ 260-481-6249 ~ www.geosci.ipfw.edu

The Department of Geosciences offers the B.A. with a major in geology and the B.S. in geology with options in geology and environmental geology. These programs help you prepare for employment as a professional geologist or in

many technical and nontechnical disciplines unrelated to geology, for teaching earth and space science in middle and secondary schools, or for further study at the graduate level.

The Bachelor of Arts program provides broad experience in the natural sciences, mathematics, humanities and social sciences, providing a spectrum of knowledge to prepare you for many technical and nontechnical fields. The Bachelor of Science program emphasizes technical components. It is particularly well-suited for prospective professional geologists or those expecting to seek advanced degrees in geology. Graduates of this program are finding the nation's oil, gas, and mineral resources; resolving environmental problems of the air, water, and soil; and discovering the ways the physical world works.

Classes in advanced subject areas are typically small, with significant individualized attention from the faculty. Highly qualified students gain valuable experience assisting with faculty research or may be employed by the department as laboratory and teaching assistants. Many geoscience courses include field trips ranging from one day to two weeks. These trips provide opportunities for students to travel and study geology throughout North America.

History

Department of History
College of Arts and Sciences

Liberal Arts Building 209 ~ 260-481-6686 ~ www.ipfw.edu/hist

Courses and programs in history help you gain a better understanding of yourself and your world and prepare you for a career in teaching, library work, law, public service, or a related profession.

The Department of History offers a Bachelor of Arts, an Associate of Arts with a concentration in history, a minor, an Honors Program, and Teacher Certification (see Part 5).

Human Services

Department of Human Services
College of Health and Human Services

Neff Hall 130 ~ 260-481-6424 ~ www.ipfw.edu/hs

Students are responsible for current polices found online at www.ipfw.edu/hs/

International Language and Culture Studies

Department of International Language and Culture Studies
College of Arts and Sciences

Liberal Arts Building 267 ~ 260-481-6836 ~ www.ipfw.edu/ilcs/

French

The Department of International Language and Culture Studies offers majors in French for the B.A. and B.A. with teaching certification, a minor and a teaching minor in French, and study-abroad opportunities. An Associate of Arts with a concentration in French, offered by the College of Arts and Sciences, is described in Part 5 of this *Bulletin*.

German

The Department of International Language and Culture Studies offers majors in German for the B.A. and the B.A. with teacher certification, a minor and a teaching minor in German, and study abroad opportunities. The department offers similar programs in French and Spanish, and limited courses in other languages. An Associate of Arts with a concentration in German, offered by the College of Arts and Sciences, is described in Part 5 of this *Bulletin*.

German is the language of a major culture and will be increasingly important in the context of rapid change in Europe early in the 21st century. German-speaking countries influence the arts, journalism, medicine, philosophy, politics, technology, and the world economy. Students with interests in business or international studies are encouraged to learn German. The Department of International Language and Culture Studies offers a full curriculum, including German culture, language, and literature. A major in German may be combined with a major in another field, a business minor, or a teaching certificate. With a major in German and a degree, in particular a B.A., you may continue your education in languages or expand into other fields at a graduate school, or you may pursue a career in business or teaching.

Study Abroad

Both majors and nonmajors are encouraged to study abroad. For those who wish to study German, Indiana University administers and cosponsors an academic-year program in Freiburg, a semester program in Freiburg, and a summer program in Graz (Austria).

Spanish

The Department of International Language and Culture Studies offers majors in Spanish for the B.A. and B.A. with teaching certification, a minor and a teaching minor in Spanish, and study abroad opportunities as well as similar programs in French and German and limited courses in other languages. An Associate of Arts with a concentration in Spanish, offered by the College of Arts and Sciences, is described in Part 5 of this Bulletin.

Spanish is the language of nearly 300 million of the world's people, including many millions in the United States. It is the official language of Spain as well as most of the countries of the western hemisphere. Increasingly, Spanish is a language of commercial, cultural, and political importance in the world. The Department of International Language and Culture Studies offers a full curriculum in the culture, language, and literature of Latin America and Spain. A major in Spanish may be combined with a major in another field, a business minor, or a teaching certificate. With a major in Spanish and a degree, in particular a B.A., you may continue your education in languages or expand into other fields at a graduate school, or you may pursue a career in business or teaching.

Study Abroad

Both majors and nonmajors are encouraged to study abroad. For those who wish to study Spanish, Indiana University administers and cosponsors an academic-year program in Madrid, Spain; semester programs in Spain (Alicante, Madrid, and Seville) and Chile (Santiago); and summer programs in Spain (Salamanca) and Mexico (Cuernavaca and Guanajuato).

Management and Marketing

Program: B.S.
Department of Management and Marketing
Richard T. Doermer School of Business and Management Sciences

Neff Hall Room 340 ~ 260-481-6470 ~ www.ipfw.edu/bms

Manufacturing & Construction Engineering Technology and Interior Design

Department of Manufacturing & Construction Engineering Technology and Interior Design
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 221 ~ 260-481-4127 ~ www.mcet.ipfw.edu

Mission

The mission of the MCET is to support the career aspirations of undergraduate and graduate students, and to fulfill the needs of their current and future employers. The department offers, develops, and continuously improves educational programs to meet these needs. The programs are accessible to traditional and nontraditional students, and support evolving career objectives by emphasizing lifelong learning.

The Department of Manufacturing & Construction Engineering Technology and Interior Design (MCET) in the College of Engineering, Technology, and Computer Science serves the needs of students, industry, and government in northeast Indiana.

The department offers Associate of Science (A.S.) in Architectural Engineering Technology (ARET), Civil Engineering Technology (CET), Industrial Engineering Technology (IET), Interior Design (INTR), and Mechanical Engineering Technology (MET). The Department also offers Bachelor of Science (B.S.) degree programs in Construction Engineering Technology (CNET), Industrial Engineering Technology (IET), Interior Design (INTR), and Mechanical Engineering Technology (MET). The Engineering Technology programs (both A.S. and B.S.) are accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology Inc. (TAC/ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone 410-347-7700. The department also offers a certificate in quality.

The primary focus of the department is the development of its students. It encourages students to acquire the knowledge and understanding that helps them contribute to society by leading meaningful and productive lives.

The major thrust of the department is to prepare graduates to understand basic concepts of knowledge, have studied one technical field in sufficient depth to appreciate its methodologies and fundamental unresolved questions, and have acquired a basis for lifelong learning. Attainment of the above is accomplished through the establishment of required courses in (1) a core of general education, (2) required technical courses in the major area, and (3) elective courses combining breadth of subject matter with specific study in depth. Laboratory experience is an essential part of both associate and bachelor degree programs.

Mastodon Advising Center

Mastodon Advising Center
Unit of Affiliated Programs

Kettler 109 ~ 260-481-6595 ~ www.ipfw.edu/mac

Professional staff in the Mastodon Advising Center (MAC) provide a supportive environment; offer class scheduling and curriculum information; assist with decision making; and furnish information on time management, study skills, academic planning, and career-related matters. See Part 8: Services, for additional information concerning career assistance.

Special Categories of Students Advised in MAC MAC provides academic advising for students who are admitted in the following special categories.

Exploratory The exploratory program serves students who do not qualify for regular admission and who would benefit from the extra attention offered by the Mastodon Advising Center. Professional advisors in MAC provide information and direction toward special programs and sound academic skills.

Students admitted to the exploratory program work closely with professional academic advisors to ensure that they reach their educational goals. Students in the program must report their academic progress to their advisors, who can help identify any support services that may be needed.

Exploratory students who have completed at least 12 credits and earned a cumulative GPA of 2.00 or higher are in most cases eligible to select an academic major.

Deciding Students Students entering IPFW undecided about major are placed into MAC. While affiliated with MAC these students are given an opportunity to take classes without having to make an early commitment to a major. Deciding MAC students are encouraged to enroll in career-exploration courses, meet with career counselors in career services, and visit academic units to investigate potential majors.

Premajor Students in Other Areas Students interested in a degree in education, organizational leadership and supervision, or general studies but who have grade-point averages below 2.00 are also assigned to the Mastodon Advising Center. Once these students have earned a cumulative GPA of 2.00 or above and fulfilled any other specific requirements that may be established, they are eligible to select their academic majors. (For pre-education students, the 2.00 cumulative GPA includes grades earned at all institutions they have attended.)

Nondegree Students Students who are visiting or waiting for regular admission to IPFW may be assigned nondegree (guest/temporary) student status and assigned to MAC for course enrollment and related assistance. After earning 24 credits in nondegree status, students may register for additional credits only after applying for and being granted regular admission status through Admissions.

Special Regulation on Readmission If you have been dismissed from IPFW for academic reasons, you are encouraged to discuss readmission procedures with a MAC advisor. IPFW students who have been dismissed and are seeking readmission through MAC must attend a readmission workshop and apply for readmission consideration. Contact MAC for further details.

Mathematical Sciences

Department of Mathematical Sciences
College of Arts and Sciences

Kettler Hall 200 ~ 260-481-6821 ~ www.ipfw.edu/math

The Department of Mathematical Sciences offers programs leading to the Bachelor of Science with a major in mathematics and in mathematics teaching, see Part 5 .

Music

Department of Music
College of Visual and Performing Arts

Rhinehart Music Center 144 ~ 260-481-6714 ~ www.ipfw.edu/vpa/music

Music and an Outside Field, Music Education, Music Performance

The Department of Music provides degree programs leading to careers in music, functions as a service department to the university, and serves as a musical center and resource for Greater Fort Wayne and northeast Indiana. The department offers programs leading to the following degrees: Bachelor of Music in performance, Bachelor of Music Education, Bachelor of Science in Music and an Outside Field, and Bachelor of Science in Music Therapy. A minor in music and a certificate in piano pedagogy are also available.

Accreditation

Programs offered by the department are accredited by the National Association of Schools of Music, American Music Therapy Association, and the National Council for Accreditation of Teacher Education.

Admission

One must satisfy the admission requirements of IPFW see Part 8) and successfully complete an audition and entrance placement exams wherein appropriate faculty committees evaluate a student's musical knowledge, skill, and potential. Students who do not meet all music-department entrance requirements may be admitted to the department as pre-music students. (See *Department of Music Student Handbook* for further information.)

Curricula

To complete a degree in music, one must satisfy the university's general education requirements, Department of Music core requirements, and requirements specific to the degree program.

Special Academic Regulations for Students Majoring in Music

Department Handbook

Detailed information regarding policies and practices of the department is included in the *Department of Music Student Handbook*, available in the department office. Information included below is detailed in the handbook. All music majors are expected to be familiar with the contents of the handbook.

Academic Probation

As a music major, you must earn: (1) a semester GPA of 2.00 and a cumulative GPA of 2.00 or higher; (2) a semester GPA of 2.5 or higher for all music courses required for your degree program; (3) a C or better in a music course or

ensemble required for your degree, with the exception of X095 Performance Class. Should you fail to meet these standards, you will be placed on departmental probation.

Students on probation may lose eligibility for scholarships and financial aid, as well as risk dismissal from the program. See the department's student handbook for further information on academic probation.

Dismissal

You will be dismissed from the department when (1) you have been placed on departmental probation due to gradepoint deficiency and do not correct the deficiency in the next semester of enrollment; (2) you have been placed on departmental probation for failure to earn a C or better in a music course required for your degree (with the exception of X095 Performance Class) and do not earn a C or better in your second attempt in the same course; (3) you fail to earn a C or better in two consecutive semesters of the same ensemble.

Readmission

If you are dismissed, you may petition for readmission to the Department of Music one semester from the date of your dismissal. Students returning from dismissal will automatically be on probation. Failure to maintain a 2.5 GPA for the first semester of re-entry or to make a C or better in a required music course will result in permanent dismissal from the department.

Keyboard Proficiency

All music majors must pass a keyboard proficiency examination. Entering students who are prepared to take the examination may do so before registration; all others must register in piano courses until this requirement is satisfied. The examination tests ability to use the piano as a professional tool. The test is given in portions at the three exam periods each semester and may be taken at other times by special arrangement with the coordinator of the area.

Transfer Credits

Audition and placement exams will be required. You may be accepted by the department with upper-divisional standing.

Upper-Division Standing

During the semester in which you are enrolled in or have successfully completed MUS T214, 216, M202, and the fourth semester of applied music at the 300 or 400 level on the same instrument, you are eligible and will be expected to take the Upper Division Performance Examination (MUS X296), an applied music performance for the applied music instructor and the resident music faculty. Upon the recommendation of the applied instructor and advisor, the performance examination may be postponed beyond four semesters of study on the primary instrument, but you must achieve eligibility and take the examination by the end of the sixth semester of study. No extensions will be given beyond the sixth semester except in the case of extreme extenuating circumstances and will require the recommendation of the applied instructor and the advisor and approval by the chair of the department. Failure to achieve eligibility does not constitute extenuating circumstances. For complete procedures, see the Department of Music Student Handbook.

Music education majors must complete the Music Education Upper Divisional Examination (MUS X297). Music therapy majors must complete the Music Therapy Skills Examination MUS X298. See the course descriptions for content and prerequisites for these examinations.

Performance Studies for Students Majoring in Music

Primary Performance

Area Performance study (applied music) is required of all music majors and is available for the study of voice, keyboard, winds, strings, and percussion. Students are assigned to applied-music teachers on the basis of instructor availability and suitability. An audition and departmental permission are required. Both a junior and a senior recital are required for the B.Mus. All other degrees require a concentration recital, the required number of semesters of study varying with the degree. To be eligible to perform a recital, you must be enrolled in an applied music course. A successful prerecital hearing is required. For a complete list of guidelines, refer to the *Department of Music Student Handbook*.

Secondary Performance Area

All students must pass the Keyboard Proficiency Examination (X299). Students for whom keyboard is not the primary applied area must enroll in Class Piano (P111, 121, 131, 141) until the examination is completed. If students complete the examination in fewer than four semesters, they will normally complete the credits with further applied study at the 200 level in piano. Study of another instrument or voice is possible, but contingent upon the consent of the degree advisor and the appropriate applied instructor. An audition is required to enter 200-level study. Students whose primary instrument is keyboard will take one semester of Keyboard Skills (P211) and three semesters of 200-level applied study of another instrument or voice. The choice of instrument requires the consent of the degree advisor. An audition is required to enter 200-level study.

Performance Class X095

Music majors are required to enroll in performance class in every semester of enrollment in applied study on their primary instrument. This 0-credit course is a weekly meeting of music majors and minors and serves as a laboratory for performance. Part of the course requirement is attendance at specified public concerts and recitals. Refer to the listing of courses for your degree program for specific information regarding your required minimum number of semesters.

Ensemble Requirements

Music majors are required to enroll in a major ensemble each semester of enrollment in the applied primary. Refer to the listing of courses for your degree program for specific information regarding your required minimum number of ensemble credits. Piano performance majors (Bachelor of Music) may substitute X002 (Accompanying) for two semesters toward this requirement.

Correspondence Study

Limited credit toward your degree may be earned by correspondence study. See your advisor for additional information.

Restriction on Use of University Facilities

University facilities are not to be used for any private enterprises such as teaching.

Time Limit

At the time you are awarded your music degree, it is intended that you be current in the knowledge and skills you have attained. Accordingly, if you do not complete the requirements within seven years of matriculation, you may be required to (1) demonstrate your eligibility to continue in your degree program by passing comprehensive examinations in all music subjects previously completed, and (2) meet the degree requirements specified in the current Bulletin. Time spent fulfilling a military-service obligation will not be counted toward this seven-year limit.

Nursing

Department of Nursing
College of Health and Human Services

Neff Hall B50 ~ 260-481-6816 ~ www.ipfw.edu/nursing

The Bachelor of Science with a Major in Nursing Program is accredited by the National League for Nursing Accreditation Commission (NLNAC), 3343 Peachtree Rd. NE Suite 500, Atlanta, GA 30326, telephone 1-404-975-5000; and the Indiana State Board of Nursing Health Professions Bureau.

As graduates of a pre-licensure nursing program, students will have attained the knowledge and skills needed to provide quality healthcare and the academic credentials required to take the National Council Licensure Examination (NCLEX-RN). Upon successful completion of this examination, the student will be eligible to practice as a registered nurse. The baccalaureate degree graduate is prepared at the professional level to function in a leadership role with other team members in varied and complex healthcare settings.

The RN-B.S. curriculum is uniquely designed for associate degree or diploma registered nurses, working full or part time, who wish to step up to bachelor's degree. It is designed to meet the student's professional goals in a flexible environment. Included in the program are two clinical practicums in a variety of acute, longterm, and community settings. Advising is personalized.

Students are responsible for current nursing policies found online at www.ipfw.edu/nursing/handbooks/default.shtml.

Prenursing

Admission to the nursing program from prenursing is limited and competitive. Prenursing applicants must meet the following requirements:

> Be admitted to IPFW as a degree-seeking student (Part 8)
> Complete 33 hours of prenursing curriculum with a grade of C or better in each course. Courses may be repeated only one time. The prenursing curriculum includes:

BIOL 20300 and	BIOL 20400
BIOL 22000	
CHM 10400 or	CHM 11100 and CHM 11200
COM 11400	
ENG W131 and	ENG W233
NUR 30900	

PSY 12000

SOC S161

Students must have completed courses in biology and pharmacology within five years of application.

Students must have completed courses in chemistry and nutrition within 10 years of application.

Have a minimum IPFW grade-point average (GPA) of 2.5 on a 4.0 scale in the prenursing curriculum. The GPA is calculated on only the 33 hours of prenursing curriculum taken at IPFW or at other Purdue University or Indiana University campuses. Applicants are ranked based on this GPA. This GPA does not include transfer courses.

A minimum GPA does not guarantee admission. The actual GPA necessary for admission varies with the GPA distribution of the applicant pool and the number of available seats for admission.

Applicants are required to take a preadmission examination.The examination is administered on specific dates and times. Applicants pay a testing fee.

All transfer grades will be reviewed and evaluated in the admission process.

First-priority consideration for program admission will be given to students who have completed 19 or more of the 33 prenursing curriculum hours at IPFW or at Purdue University or Indiana University campuses. Three credit hours of a required science must be taken at a Purdue University or Indiana University campus for admission consideration.

If additional seats are available, the second priority is given to students who have completed less than 19 of the 33 prenursing curriculum hours at IPFW or at other Purdue University or Indiana University campuses. Three credit hours of required science must be taken at a Purdue University or Indiana University campus for admission consideration.

If additional seats are available, the third priority is given to students who have none of the 16 prenursing curriculum hours at IPFW or at other Purdue University or Indiana University campuses. In this case, the transfer GPA of the prenursing curriculum will be used for admission.

Should a tie in applicants' GPAs occur, rank ordering will be based upon the number of repeated courses at IPFW, grades earned in science courses at IPFW, and scores earned on the preadmission examination.

Students apply to enter the B.S. degree program.

Students are admitted for a specific semester and are expected to enter that semester. Students who do not enter that semester must reapply for competitive program admission. Students who decline admission two times will no longer be considered.

Students must apply by the following deadlines: May 1 (fall semester) or Dec. 1 (spring semester).

LPN admission is conducted once per year with a Dec. 1 (spring semester) application deadline.

Student must accept or decline admission by returning the IPFW program admission form by the defined deadline.

Students who have not been accepted, but who are qualified, may reapply for admission.

Credits in developmental courses (ENG W129, COAS W111, and MA 10900) do not apply toward either the prenursing or nursing curriculum.

All Current nursing policies are online at: www.ipfw.edu/nursing/handbooks/default.shtml.

Transfer Students from Other Nursing Programs

Transfer students from other NLNAC or CCNE accredited RN nursing programs may be considered for admission based on availability of space. Students must have completed 24 credit hours with a GPA of 3.5 (4.0 scale) or higher.

Applicants are required to take a preadmission examination. The examination is administered on specific dates and times. Applicants pay a testing fee.

Criteria for Dismissal from Prenursing/ Ineligibility for Admission to Nursing

A student who earns two grades below C- in the same or any combination of two courses required in the prenursing curriculum will be ineligible for program admission for a period of five years after earning the last grade below C-.

A student who is dismissed may appeal the decision to the Department of Nursing. If the student is dismissed for failure to meet the university's minimum academic standards, application for readmission must follow the procedures established by the university. The Department of Nursing recognizes the Academic Renewal option.

Dismissal from the nursing program may result from professional misconduct: Professional Misconduct Policy, www.ipfw.edu/nursing/hanbooks/default.shtml.

Criteria for Dismissal from Nursing

A student who earns two grades below C- in the same or any combination of two courses required in the nursing curriculum will be dismissed from the program.

A student who has been dismissed from the nursing program is ineligible for admission into the nursing program for a period of five years from the date of dismissal.

Dismissal from the nursing program may result from professional misconduct: Professional Misconduct Policy, www.ipfw.edu/nursing/handbooks/default.shtml.

A student who is dismissed may appeal the decision to the Department of Nursing. If the student is dismissed for failure to meet the university's minimum academic standards, application for readmission must follow the procedures established by the university. The Department of Nursing recognizes the Academic Renewal option.

Special Academic Regulations for Students in Nursing

Physical, Immunizations, TB, CPR, Substance Abuse Screen, and Background Check

Policy is available online at: www.ipfw.edu/nursing/handbooks/default.shtml.

Degree Requirements

Students are expected to complete the B.S. within six years after admission to the program.

Students are required to complete the degree under the requirements specified in the *Bulletin*, Requirements for Degrees (Part 8), and College of Health and Human Services (see Part 4), in effect at the time of admission to nursing.

Validating Previous Knowledge and Experience

Previously acquired knowledge/experience may be validated by challenge examination(s). Contact a nursing or prenursing advisor for specific information and department guidelines.

In all cases, eligibility for a challenge examination; the type of examination; testing procedures, date, time, and location; and evaluation of the performance will be determined by the IPFW Department of Nursing faculty. Decisions made by the department faculty with respect to the above are final. Only one attempt at an authorized challenge examination may be made.

RN–B.S. students who are certified by a recognized nursing organization may seek credit towards a nursing elective. Certain certificates may be used as credit for required nursing courses.

Academic Advising

Opportunities to talk to nursing faculty are available during office hours, via e-mail, or by appointment. Advising is personalized. Make an appointment to have your transcripts and nursing experience evaluated.

Participation

Nursing students have the opportunity to impact decisions within nursing and on the campus by committee participation. Committee openings are announced in classes and posted on the nursing Web site. The Undergraduate Curriculum Committee is an example of one committee that invites and names a student representative and an alternate.

Eligibility for Licensure

Upon successful completion of the B.S. program, the graduate is eligible for licensure as a registered nurse (RN). Any person who applies for examination and registration as a registered nurse in Indiana shall submit to the Health Professions Bureau of the Indiana State Board of Nurses written evidence, verified by oath, that he/she

- has completed an approved high school course of study or equivalent as apporved by the appropriate educational agency
- has completed the prescribed curriculum in a state-accredited school of nursing and holds a diploma or certificate from there
- has not been convicted of any act that would constitute grounds for disciplinary sanction under the state board rules and regulations or of any felony that has direct bearing on the individual's ability to practice competently.

Organizational Leadership and Supervision

Neff Hall 288 ~ 260-481-6420 ~ www.ipfw.edu/ols/

The mission of the Division of Organizational Leadership and Supervision (OLS) is to integrate theory and practical application in developing leaders for roles in the dynamic organizational environment of the 21st century. This goal is accomplished through an interdisciplinary curriculum that emphasizes an understanding of people, groups, and the global community within an organizational framework.

OLS combines the study of leadership with a career concentration. The program focuses on understanding and working with people within organizations and the practical application of leadership concepts and theories. Students' creativity and competence in the administration of human resource systems, team design and facilitation, and the influencing processes that define leadership are developed through this program.

The division offers the following academic programs, which are described in Part 5 of this *Bulletin*.

Subject	*Program*
Organizational Leadership and Supervision	A.S., B.S., and Minor
Supervisory Leadership	Certificate

Philosophy

Department of Philosophy
College of Arts and Sciences

Liberal Arts Building 23 ~ 260-481-6366 ~ www.ipfw.edu/phil

Physics

Department of Physics
College of Arts and Sciences

Kettler Hall 126B ~ 260-481-6306 ~ www.ipfw.edu/physics/

Political Science

Department of Political Science
College of Arts and Sciences

Liberal Arts Building 209 ~ 260-481-6686 ~ www.ipfw.edu/pols

Political science includes basic issues in governance; political structures, processes, and controls; social conditions; and intergovernmental relations. This program helps you prepare to be an informed citizen or public servant; to succeed in a wide variety of careers; or to engage in further study of government, politics, or law.

The Department of Political Science offers a Bachelor of Arts, an Associate of Arts with a concentration in political science, a minor, Teacher Certification, and a Certificate in Civic Education and Public Advocacy (see Program Descriptions). The department also offers specialized advising for prelaw students.

Prelaw Program and Advising

Advising for prelaw students is provided by faculty in the political science department. Although no specific major is usually required for admission to law school, prelaw students can benefit greatly from the experience and analytical skills gained from the study of political science.

Psychology

Department of Psychology
College of Arts and Sciences

Neff Hall 388 ~ 260-481-6403 ~ www.ipfw.edu/psyc

The Department of Psychology offers a bachelor's degree in psychology. A minor in psychology is also offered for students in other bachelor's degree majors. Many courses are offered in the evenings, and students may attend full or part time.

An Associate of Arts with a concentration in psychology is described in the College of Arts and Sciences section of Part 5 .

Honors Program in Psychology

A student may earn an honors degree in psychology by completing all of the requirements toward the B.A., achieving an overall GPA of 3.50 or higher, and conducting a two-semester independent research project. In the first semester of independent research the student is to complete three credits of PSY 49800 or PSY 59000. In the second semester, the student is to complete an honors thesis, PSY 49900. As part of the honors thesis, an oral presentation to the department is required.

Sociology

Department of Sociology
College of Arts and Sciences

Liberal Arts Building 241 ~ 260-481-6842 ~ www.ipfw.edu/sociology

Courses in sociology provide an understanding of society and of the relationship between the individual and society. Studies in sociology help to prepare you for graduate school and careers in the social services, law, human relations, criminal justice, government, education, and mass media. In order to effectively plan a course of study that will best meet your educational and career objectives, you will be assigned to an advisor as soon as you declare a major in sociology.

Although a minor is not required, study in an outside area is recommended. Anthropology, computer science, economics, history, labor studies, political science, psychology, organizational leadership and supervision, and women's studies support the major well.

Theatre

Department of Theatre
College of Visual and Performing Arts

Williams Theatre 128 ~ 260-481-6551 ~ www.ipfw.edu/vpa/theatre

Degree programs offered by the Department of Theatre provide comprehensive training for the theatre profession and explore theatre's 2,000-year history and literature. Through its programs, the department seeks to provide the finest in undergraduate education by providing a professional curriculum that embodies defined objectives and comprehensive performance/production training. Students study both content (dramatic literature, theory and criticism, and theatre history) and process (acting, directing, designing, and production).

The department offers a Bachelor of Arts in theatre. Emphases are available in acting, design/technology and directing.

Minors in theatre and dance are available to students who are interested in theatre, but are pursuing IPFW bachelor's degrees in other subjects. Theatre Teaching certification is available through the School of Education.

Special Academic Regulations

Probation

You must earn a grade of C or better in each required theatre course and maintain a GPA of 2.5 or higher over all theatre courses you have completed. You are placed on academic probation if you do not meet this requirement.

Dismissal and Readmission

If you are on probation and do not correct academic deficiencies during your next semester of enrollment, you will be dismissed from the theatre program.

If you are dismissed from the theatre program, you may seek readmission under the university guidelines specified in Part 8 of this *Bulletin*.

Time Limit

You must complete the degree requirements specified in the *Bulletin* in effect at the time you were regularly admitted to the university. However, to ensure that you will be professionally competitive with other members of your graduating class, you may be required to satisfy the degree requirements specified in the most current *Bulletin* if you have not completed all requirements for your degree within seven years from the date of your admission.

Degree Requirements

You may not use a single course to fulfill more than one Department of Theatre requirement.

Department Handbook

Detailed information regarding requirements, policies, and practices of the department is included in a theatre student handbook available in the department office. All theatre majors must comply with the requirements specified in the handbook.

Visual Communication and Design

Department of Visual Communication and Design
College of Visual and Performing Arts

Visual Arts Building 213 ~ 260-481-6709 ~ www.ipfw.edu/vpa/vcd

The mission of the Department of Visual Communication and Design is to educate its students and the community in art, design, and appropriate technologies. Students may pursue the Bachelor of Fine Arts with concentrations in computer art, graphic design, and photography. A two-year program of study, an Associate of Science in commercial art, is also offered.

Both the B.F.A. and A.S. programs include general education, art/design history, and visual communication and design courses.

Special Academic Regulations

To ensure that degree-seeking students are guaranteed priority registration in their classes, the following policies will be observed:

Students who are not progressing toward completion of degree requirements, including students who have graduated but wish to continue a program of study, will be reclassified as nondegree-seeking. These students' registrations will not be processed until the final week before the beginning of each semester. This policy will allow these students an opportunity to avail themselves of classroom opportunities when space is available.

All 400-level studio courses may be repeated up to a maximum of 18 credits. This long-standing policy is based upon the rationale that six semesters of study at that level in one discipline is sufficient for undergraduate training.

Independent-study courses are available for students with at least junior standing to pursue studio interests not served in other course offerings. Independent-study courses may be arranged with the appropriate faculty member on the basis of a viable course of study, a reasonable load for the instructor, and space availability. Priority will be given to degree-seeking students and to classes with regularly scheduled meetings.

Prerequisites for 200-level and above studio courses may be waived by the appropriate instructor during the week before classes begin, contingent upon space availability.

Internships are available for students with at least junior standing to pursue learning opportunities in professional situations. Students may receive up to 6 credit hours for such experiential learning. Documentation concerning internship requirements can be found in the Department of Visual Communication and Design office.

Credit Transfer

If a student transfers studio credits from another college or university, he/she may be admitted to the B.F.A. program upon successful portfolio presentation. To earn the B.F.A. at IPFW, the student must fulfill all remaining requirements and complete a minimum of 24 credits of upper-division studio work at IPFW.

Time Limit

If a student does not complete degree requirements within seven years of matriculation, he/she may be required to meet the degree requirements specified in the current Bulletin.

Student Handbook

A departmental student handbook, consisting of policies and regulations of the Department of Visual Communication and Design, has been prepared as a guide for students. This handbook, available in the department office, provides detailed information about responsibilities and a sample curriculum for each degree. All VCD majors are expected to be familiar with the contents of this handbook.

Women's Studies

Department of Women's Studies
College of Arts and Sciences

Liberal Arts Building 272 ~ 260-481-6711~ www.ipfw.edu/wost

Women's studies is based on the premise that the study of women's experiences, concerns, social roles, and creativity is essential to our knowledge of humankind and society. Feminist scholarship and theory provide the knowledge and analytical tools necessary for a gender-balanced perspective on our world, both past and present. The Women's Studies Program affords you the opportunity to pursue feminist scholarship on women and gender through a variety of interdisciplinary courses.

In addition to the B.A. program, an Associate of Arts with a concentration in women's studies is available at IPFW. See College of Arts and Sciences in Part 5 for further information.

Academic Programs

Area (General Education) Requirements

Area I: Linguistic and Numerical Foundations

Reading/Writing (3 credits)

ENG W131 - Elementary Composition I Cr. 3.
ENG W140 - Elementary Composition Honors Cr. 3.

Listening/Speaking (3 credits)

COM 11400 - Fundamentals of Speech Communication Cr. 3.

Quantitative Reasoning (3 credits)

MA 10100 - Mathematics for Elementary Teachers I Cr. 3.
MA 14900 - Basic and College Algebra Cr. 5.
MA 15300 - Algebra and Trigonometry I Cr. 3.
MA 15900 - Precalculus Cr. 5.
MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
POLS Y395 - Quantitative Political Analysis Cr. 3.
SPEA K300 - Statistical Techniques Cr. 3.
STAT 12500 - Communicating with Statistics Cr. 3.
> Note: Area I also includes a computer literacy requirement defined by the colleges/schools/divisions. Consult your academic advisor for information on the computer literacy requirement for your major.

Area II: Natural and Physical Sciences

Course List:

ANTH B200 - Bioanthropology Cr. 3.
AST A100 - The Solar System Cr. 3.
AST A105 - Stars and Galaxies Cr. 3-4.
AST L100 - Solar System Laboratory Cr. 1.
    (1 credit)
BIOL 10000 - Introduction to the Biological World Cr. 3.
BIOL 25000 - Women and Biology Cr. 3.
BIOL 32700 - Biology of Aging Cr. 3.
CHM 10400 - Living Chemistry Cr. 3.
CHM 11100 - General Chemistry Cr. 3.
CHM 12000 - Chemistry and Art Cr. 3.
GEOG G107 - Physical Systems of the Environment Cr. 3.
GEOG G109 - Weather and Climate Cr. 3.
GEOL G100 - General Geology Cr. 3-5.
GEOL S100 - General Geology Honors Cr. 5.
GEOL G103 - Earth Science: Materials and Processes Cr. 3.
GEOL G104 - Earth Science: Evolution of the Earth Cr. 3.
GEOL G210 - Oceanography Cr. 3.

GEOL L100 - General Geology Laboratory Cr. 1-2.
 (1 credit)
IDIS G102 - Freshman Seminar/Physical and Natural World Cr. 3.
PHYS 10500 - Sound and Music Cr. 3.
PHYS 11500 - Introduction to Lasers Cr. 3.
PHYS 12000 - Physics of Sports Cr. 3.
PHYS 12500 - Light and Color Cr. 3.
PHYS 12700 - Physics for Computer Graphics and Animation Cr. 3.
PHYS 13100 - Concepts in Physics I Cr. 3.
PHYS 13200 - Concepts in Physics II Cr. 3.
PHYS 13500 - The First Three Minutes Cr. 3.
PHYS 13600 - Chaos and Fractals Cr. 3.

Area III: The Individual, Culture, and Society

Course List:

AFRO A210 - The Black Woman in America Cr. 3.
ANTH E105 - Culture and Society Cr. 3.
ANTH L200 - Language and Culture Cr. 3.
ANTH P200 - Introduction to Prehistoric Archaeology Cr. 3.
BUS W100 - Principles of Business Administration Cr. 3.
CDFS 25500 - Introduction to Couple and Family Relationships Cr. 3.
COM 25000 - Mass Communication and Society Cr. 3.
COM 30300 - Intercultural Communication Cr. 3.
ECON E200 - Fundamentals of Economics Cr. 3.
ECON E201 - Introduction to Microeconomics Cr. 3.
ENG L364 - Native American Literature Cr. 3.
FOLK F101 - Introduction to Folklore Cr. 3.
FOLK F111 - Introduction to World Folk Music Cr. 3.
GERN G231 - Introduction to Gerontology Cr. 3.
HIST H105 - American History I Cr. 3.
HIST S105 - American History Honors To 1877 Cr. 3.
HIST H106 - American History II Cr. 3.
HIST S106 - American History Honors Since 1877 Cr. 3.
HIST H113 - History of Western Civilization I Cr. 3.
HIST H114 - History of Western Civilization II Cr. 3.
HIST H232 - The World in the 20th Century Cr. 3.
HIST S232 - The World in the 20th Century - Honors Cr. 3.
HSRV 35000 - Drugs and Society Cr. 3.
IDIS G103 - Freshman Seminar/The Individual, Culture, and Society Cr. 3.
IET 10500 - Industrial Management Cr. 3.
INTL I200 - Introduction to International Studies: Emerging Global Visions Cr. 3.
JOUR C200 - Mass Communications Cr. 3.
JOUR J110 - Foundations of Journalism and Mass Communication Cr. 3.
LING L103 - Introduction to the Study of Language Cr. 3.
NUR 30900 - Transcultural Healthcare Cr. 3.
OLS 25200 - Human Relations in Organizations Cr. 3.
OLS 26800 - Elements of Law Cr. 3.
PACS P200 - Introduction to Peace and Conflict Studies - Humanities Perspectives Cr. 3.
POLS S103 - Introduction to American Politics - Honors Cr. 3.
POLS S211 - Introduction to Law - Honors Cr. 3.

POLS Y103 - Introduction to American Politics Cr. 3.
POLS Y105 - Introduction to Political Theory Cr. 3.
POLS Y107 - Introduction to Comparative Politics Cr. 3.
POLS Y109 - Introduction to International Relations Cr. 3.
POLS Y211 - Introduction to Law Cr. 3.
PSY 12000 - Elementary Psychology Cr. 3.
PSY 12000 - Elementary Psychology - Honors Cr. 3.
PSY 24000 - Introduction to Social Psychology Cr. 3.
PSY 33500 - Stereotyping and Prejudice Cr. 3.
PSY 35000 - Abnormal Psychology Cr. 3.
SOC S161 - Principles of Sociology Cr. 3.
SOC S163 - Social Problems Cr. 3.
SPEA E162 - Environment and People Cr. 3.
SPEA H120 - Contemporary Health Issues Cr. 1-3.
SPEA J101 - The American Criminal Justice System Cr. 3.
SPEA V170 - Introduction to Public Affairs Cr. 3.

Area IV: Humanistic Thought

Course List:

CLAS C205 - Classical Mythology Cr. 3.
CMLT C217 - Detective and Mystery Literature Cr. 3.
COM 24800 - Introduction to Media Criticism and Analysis Cr. 3.
ENG L101 - Western World Masterpieces I: Ancient to Renaissance Cr. 3.
ENG L102 - Western World Masterpieces II: Renaissance to Modern Cr. 3.
ENG L108 - Introduction to Contemporary Literature Cr. 3.
ENG L150 - Representative American Writers Cr. 3.
ENG L250 - American Literature Before 1865 Cr. 3.
ENG L251 - American Literature Since 1865 Cr. 3.
ENG L301 - Critical and Historical Survey of English Literature I Cr. 3.
ENG L302 - Critical and Historical Survey of English Literature II Cr. 3.
FILM K101 - Introduction to Film Cr. 3.
FINA A170 - Women Artists/The Visual Arts Cr. 3.
FINA H101 - Art Appreciation Cr. 3.
FINA H111 - Ancient and Medieval Art Cr. 3.
FINA H112 - Renaissance Through Modern Art Cr. 3.
FINA H401 - Art Theory IV Cr. 3.
FINA H415 - Art of Pre-Columbian America Cr. 3.
FOLK F254 - Social History of Rock and Roll Cr. 3.
    Because of significant overlapping content, students may count either FOLK F254 or MUS Z201 toward the
    Area IV requirement, but not both.
FREN F310 - Topics in French Literature in Translation Cr. 3.
FWAS H201 - Humanities I: The Ancient World Cr. 3.
FWAS H202 - Humanities II: Foundations of the Modern Western World Cr. 3.
HON H101 - Ideas and Human Experience Cr. 1-3.
IDIS G104 - Freshman Seminar/ Humanistic Thought Cr. 3.
ILCS I208 - International Cinema Cr. 3.
    -with topic "Contemporary Problems an Issues";   formerly INTL I208
INTR 22000 - Architecture and Urban Form Cr. 3.
INTR 32000 - Architecture and Urban Form in the Modern World Cr. 3.
INTR 33000 - Culture and Design: A Cross-Culture Comparison of Architecture Cr. 3

MUS N101 - Music for the Listener - Honors Cr. 3.
MUS Z101 - Music for the Listener Cr. 3.
MUS Z105 - Traditions in World Music Cr. 3.
MUS Z201 - History of Rock and Roll Music Cr. 3.
     Because of significant overlapping content, students may count either FOLK F254 or MUS Z201 toward the
     Area IV requirement, but not both.
MUS Z393 - History of Jazz Cr. 3.
PHIL 11000 - Introduction to Philosophy Cr. 3.
PHIL 11100 - Ethics Cr. 3.
PHIL 11200 - Religion and Culture Cr. 3.
PHIL 12000 - Critical Thinking Cr. 3.
PHIL 15000 - Principles of Logic Cr. 3.
PHIL 31200 - Medical Ethics Cr. 3.
PHIL 35100 - Philosophy of Science Cr. 3.
REL 11200 - Religion and Culture Cr. 3.
REL 23000 - Religions of the East Cr. 3.
REL 23100 - Religions of the West Cr. 3.
REL 30100 - Islam Cr. 3
THTR 20100 - Theatre Appreciation Cr. 3.

Area V: Creative and Artistic Expression

Course List:

DANC 10200 - Ballet I Cr. 2.
DANC 10300 - Jazz Dance I Cr. 2.
DANC 12100 - Tap Dance I Cr. 2.
ENG W103 - Introductory Creative Writing Cr. 3.
ENG W203 - Creative Writing Cr. 3.
ENGR 12000 - Graphical Communications and Spatial Analysis Cr. 2.
FINA N108 - Introduction to Drawing for Nonmajors Cr. 3.
FINA S105 - Introduction to Design Cr. 3.
FINA S165 - Ceramics for Nonmajors Cr. 3.
JOUR J210 - Visual Communication Cr. 3.
MUS L153 - Introduction to Music Therapy Cr. 3.
MUS Z140 - Introduction to Musical Expression Cr. 3.
THTR 13400 - Fundamentals of Performance Cr. 3.
VCD N274 - Digital Imaging Cr. 3.

Area VI: Inquiry and Analysis

All inquiry and analysis courses have a prerequisite of "Completion of foundation skills requirement." Some courses may also have specific prerequisites. Inquiry and Analysis courses are not open to students with freshman status.

Course List:

ANTH E335 - Ancient Civilizations of Mesoamerica Cr. 3.
ANTH P370 - Ancient Cultures of South America Cr. 3.
BIOL 30400 - Major Ideas in Biology (Honors Course) Cr. 3.
BIOL 31700 - Addictions: Biology, Psychology, and Society Cr. 3.

BIOL 32600 - Heredity: A Human Perspective (Honors Course) Cr. 3.

BIOL 34900 - Environmental Science Cr. 3.

CHM 22400 - Introductory Quantitative Analysis Cr. 4.

CMLT C333 - Romanticism Cr. 3.

CMLT C337 - The 20th Century: Tradition and Change Cr. 3.

COM 31600 - Controversy in American Society Cr. 3.

CS 30600 - Computers in Society Cr. 3.

ECON E306 - Undergraduate Seminar in Economics Cr. 3.
     with topic "Contemporary Problems and Issues"

ECON E340 - Introduction to Labor Economics Cr. 3.

EDUC E346 - Discipline/Parenting for Young Children Cr. 3.

EDUC K410 - Trends and Issues in Special Education Cr. 3.

ENG L399 - Junior Seminar Cr. 3.

ENG W421 - Technical Writing Projects Cr. 1-3.

ENG W462 - Studies in Rhetoric and Composition Cr. 3.

FILM K390 - The Film and Society Cr. 3.

FOLK F305 - Asian Folklore Cr. 3.

GEOL G300 - Environmental and Urban Geology Cr. 3.

GEOL G305 - Geologic Fundamentals in Earth Science Cr. 3-5.

HIST A313 - Origins of Modern America Cr. 3.

HIST D426 - History of Balkans: 1914 to Present Cr. 3.

HON H300 - Interdepartmental Colloquium Cr. 1-3.

HON H302 - Interdepartmental Colloquium Cr. 1-3.

LING L303 - Introduction to Linguistic Analysis Cr. 3.

LING L360 - Language in Society Cr. 3.

MA 31400 - Introduction to Mathematical Modeling Cr. 3.

MUS L418 - Psychology of Music Cr. 3.

MUS U410 - Creative Arts, Health, and Wellness Cr. 3.

NUR 33900 - Research in Healthcare Cr. 3.

OLS 45400 - Gender and Diversity in Management Cr. 3.

OLS 49600 - Leading Change: Theory and Practice Cr. 3.

PHIL 30300 - History of Modern Philosophy Cr. 3.

PHIL 30400 - 19th Century Philosophy Cr. 3.

PHYS 30200 - Puzzles, Strategy Games, and Problem Solving in the Physical Sciences Cr. 3.

PHYS 32500 - Scientific Computing Cr. 3.

PHYS 34200 - Modern Physics Cr. 3.

POLS S401 - Studies in Political Science-Honors Cr. 3.

POLS Y306 - State Politics in the United States Cr. 3.

POLS Y307 - Indiana State Government and Politics Cr. 3.

POLS Y335 - Western European Politics Cr. 3.

POLS Y339 - Middle Eastern Politics Cr. 3.

POLS Y340 - East European Politics Cr. 3.

POLS Y350 - Politics of the European Union Cr. 3.

POLS Y360 - U.S. Foreign Policy Cr. 3.

POLS Y376 - International Political Economy Cr. 3.

POLS Y401 - Studies in Political Science Cr. 3.

POLS Y490 - Senior Seminar in Political Science Cr. 3.

PSY 31700 - Addictions: Biology, Psychology and Society Cr. 3.

PSY 33400 - Cross Cultural Psychology Cr. 3.

PSY 34500 - Psychology of Women Cr. 3.

PSY 35300 - Social and Personality Development in Children Cr. 3.

PSY 36200 - Human Development II: Adolescence Cr. 3.

PSY 36500 - Development of Gender Roles in Children Cr. 3.

PSY 36700 - Adult Development and Aging Cr. 3.

PSY 37100 - Death and Dying Cr. 3.
PSY 44400 - Human Sexual Behavior Cr. 3.
PSY 46000 - Advanced Abnormal Psychology Cr. 3.
SOC S309 - The Community Cr. 3.
SOC S314 - Social Aspects of Health and Medicine Cr. 3.
SOC S315 - Work and Occupations Cr. 3.
SOC S316 - The Family Cr. 3.
SOC S320 - Deviant Behavior and Social Control Cr. 3.
SOC S325 - Criminology Cr. 3.
SOC S328 - Juvenile Delinquency Cr. 3.
SOC S360 - Topics in Social Policy Cr. 3.
SPEA E400 - Topics in Environmental Studies Cr. 3.
SPEA H371 - Human Resource Management in Healthcare Facilities Cr. 3.
SPEA H422 - The Social Epidemics: AIDS, Violence, and Substance Abuse Cr. 3.
SPEA V348 - Management Science Cr. 3.
SPEA V371 - Financing Public Affairs Cr. 3.
SPEA V373 - Human Resources Management in the Public Sector Cr. 3.
SPEA V450 - Contemporary Issues in Public Affairs (Honors Course) Cr. 1-3.
STAT 34000 - Elementary Statistical Methods II Cr. 3.
THTR 47000 - Theatre and Society I Cr. 3.
THTR 47100 - Theatre and Society II Cr. 3.
WOST W301 - International Perspectives on Women Cr. 3.

Associate

Architectural Engineering Technology (A.S.)

Program: A.S.
Department of Manufacturing & Construction Engineering Technology and Interior Design
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 221 ~ 260-481-4127 ~ www.mcet.ipfw.edu

The student learning outcomes for the degree are as follows:

An appropriate mastery of the knowledge, techniques, skills and modern tools of their disciplines.
Employing concepts of architectural theory and design in a design environment.
Utilizing modern instruments, methods and techniques to produce A/E documents and presentations.
Conducting standardized field and laboratory testing on construction materials.
Utilizing modern instruments and research techniques for site development and building layout.
Estimating material quantities for technical projects.
Utilizing codes, contracts and specifications in design, construction and inspection activities.
An ability to apply current knowledge and adapt to emerging applications of mathematics, science, engineering and technology.
Utilize current industry standard equipment.
Employing productivity software to solve technical problems.
An ability to conduct, analyze and interpret experiments and apply experimental results to improve processes.
Conduct, analyze, and interpret experiments than apply results.
An ability to apply creativity in the design of systems, components or processes appropriate to program objectives.

In-class projects requiring design decisions.
Student design projects for external presentation.
An ability to function effectively on teams.
Actively participate in team activities during and outside class.
Orally and graphically present teams results.
An ability to identify, analyze and solve technical problems.
Determine forces and stresses in elementary structural systems.
Calculate basic loads & demands in mechanical/electrical systems.
Solve problems in math, statistics, and physics courses.
An ability to communicate effectively.
Demonstrate effective oral communication skills.
Demonstrate effective written communication skills.
Demonstrate effective graphic communication skills
A recognition of the need for, and an ability to engage in lifelong learning.
Require library research and reporting.
Require Web research and reporting.
An ability to understand professional, ethical and social responsibilities.
Demonstrate knowledge of professional code of ethics.
Service leaning component.
A respect for diversity and knowledge of contemporary professional, societal and global issues.
Social studies elective.
Exposure to other cultures building practices.
A commitment to quality, timeliness, and continuous improvement.
Quality and timeliness is required aspect of course.
Course evaluation performed each semester.

Mission

To provide employers and the public of northeast Indiana with educated, technologically equipped graduates, able to serve the varied construction industries (represented by architectural, civil, and construction engineering technologies, and interior design) in advancing the solutions to problems facing the public and private sector.

Goals

To provide education of the traditional and returning adult student for career success in the construction industry
To develop a respect for diversity and a knowledge of contemporary professional, societal, and global issues with an understanding of professional and ethical responsibilities.
To be responsive to the ever-changing technologies of the construction industries.
To instill in students the desire for and ability to engage in lifelong learning.
The breadth of the curriculum will provide leadership potential in addressing problems of the region, its people, and its industries.

This program helps you prepare for technical employment with architects, engineers, builders, materials suppliers, and related government agencies. You may work in drafting, architectural detailing, construction expediting, estimating, or sales. Graduates with experience hold jobs as senior drafting personnel, architectural job captains, construction supervisors, and contractors. This program also prepares you to work toward a bachelor's degree in construction engineering technology. The architectural engineering technology program is not a professional architecture program and will not lead to licensure as a registered architect.

The department offers related majors in civil engineering technology and construction engineering technology. All three programs are accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone, 410-347-770. The programs provide problem solving skills, hands-on competency, and required state-of-the-art technical knowledge.

Alumni of the department are employed in all areas of the building industry, including construction; architecture; interior design; civil engineering; land surveying; and state, county, and city governments.

To earn the A.S. with a major in architectural engineering technology, you must fulfill the requirements of IPFW (see Part 8); the College of Engineering, Technology, and Computer Science (see Part 4); and those described below:

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations Credits: 11

COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
MA 15900 - Precalculus Cr. 5.

Area III—The Individual, Culture, and Society Credits: 3

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 3

INTR 22000 - Architecture and Urban Form Cr. 3.

ETCS General Distribution Requirements Credits: 11

PHYS 21800 - General Physics Cr. 4.
PHYS 21900 - General Physics II Cr. 4.
STAT 30100 - Elementary Statistical Methods I Cr. 3.

Core and Concentration (Major) Courses Credits: 39

ARET 12300 - Construction Graphic Communication Cr. 3.
ARET 12400 - Architectural Engineering Construction I Cr. 3.
ARET 16700 - Construction Systems and Materials Cr. 3.
ARET 22200 - Architectural Engineering Construction II Cr. 3.
ARET 28100 - Environmental Equipment for Buildings I Cr. 3.
ARET 28200 - Environmental Equipment for Buildings II Cr. 3.
CET 10400 - Elementary Surveying Cr. 3.
CET 26600 - Materials Testing Cr. 3.
CNET 27600 - Specs, Contracts, and Codes Cr. 3.
CNET 28000 - Quantity Estimating Cr. 3.
ET 19000 - Statics Cr. 3.
ET 20000 - Strength of Materials Cr. 3.
INTR 12100 - Freehand Sketching Cr. 3.

Total Credits: 67

Biology Concentration (A.A.)

Program: Concentration A.A.
Department of Biology
College of Arts and Sciences

Science Building 330 ~ 260-481-6305 ~ www.ipfw.edu/bio

The student learning outcomes for the degree are as follows:

Students should have demonstrated comprehension of basic biological principles and theories and a demonstrated ability to apply theories and principles to problem solving.

Provide coursework and advising for students who seek employment after the A.A. degree or who expect to continue their undergraduate education with the intent of earning a B.S. degree in Biology.

The associate of arts degree requires courses that satisfy the IPFW general education program and requirements in the concentration. The degree requires a total of 63 credits, most of which are fulfilled by required courses. If you plan to continue for a bachelor's degree, see Part 5 for B.S. requirements in biology, biology teaching, and medical technology.

IPFW General Education Requirements

Area I—Linquistic and Numerical Foundations Credits: 9

COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
MA 15300 - Algebra and Trigonometry I Cr. 3.
   (credits included in Concentration Requirements, below)
   Or
MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.
   (credits included in Concentration Requirements, below)

Area II—Natural and Physical Sciences Credits: 8

BIOL 11700 - Principles of Ecology and Evolution Cr. 4.
   (credits included in Concentration Requirements, below)
CHM 11600 - General Chemistry Cr. 4.
   (credits included inConcentration Requirements, below)

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Concentration Requirements

A grade of C or higher requred in each course.

BIOL 11700 - Principles of Ecology and Evolution Cr. 4.
BIOL 11900 - Principles of Structure and Function Cr. 4.

BIOL 21800 - Genetics and Molecular Biology Cr. 4.
CHM 11500 - General Chemistry Cr. 4.
CHM 11600 - General Chemistry Cr. 4.
MA 15300 - Algebra and Trigonometry I Cr. 3.
    Or
MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.

One of the following Credits: 3

ETCS 10600 - Introduction to Computers Cr. 3.
    Or
STAT 24000 - Statistical Methods for Biology Cr. 3.

Two semester, 8 credit sequence in organic chemistry

One of the following Credits: 3-4

BIOL 21700 - Intermediate Ecology Cr. 3.
    Or
BIOL 21900 - Principles of Functional Biology Cr. 4.

Credits in the first year of a foreign language Credits: 8

Additional credits in approved elective courses Credits: 4-12

Total credits with a graduation GPA of at least 2.00: 60-63

Business (A.S.B.)

Program: A.S.B.
SBMS Undergraduate Student Affairs Center
Richard T. Doermer School of Business and Management Sciences

Neff Hall 366 ~ 260-481-6472 ~ www.ipfw.edu/bms

Upon completion of the Associate Degree in Business, students will be able to:

Identify, define, describe and/or discuss fundamental business terminology and concepts
Extract, analyze, and summarize data into useful business information
Demonstrate effective verbal skills
Demonstrate effective written skills

Business Administration

The A.S.B. option in business administration is a preprofessional degree. The academic program leading toward the degree helps you prepare for careers at the operational level of business.

All credits earned in the business administration option can be applied toward the Bachelor of Science in Business if you qualify for admission to that program.

Degree Requirements

You must satisfy the requirements of IPFW (see Part 8) and the Richard T. Doermer School of Business and Management Sciences (listed in this section) and earn a minimum of 63 credits in courses in (1) general education and (2) general business and economics.

To remain in the program and graduate, you must earn a grade of C or better in all ENG writing courses and all business and economics courses, and maintain a cumulative GPA of 2.00 or better. Courses completed by correspondence are not applicable (this pertains only to traditional correspondence courses, not online courses.) Business majors may not count BUS, ECON or OLS courses towards their general education requirements

TIME LIMIT It is the school's intention that you possess the most current knowledge and skills when you complete the A.S.B. Because of this, you are allowed four calendar years to complete this degree from the semester you are admitted to IPFW. If more than four years have elapsed since your admission, you will be required to meet the degree requirements sepcified in the most current IPFW Bulletin.

OVERLAPPING COURSES You may not count toward graduation any courses or sequences considreed to have overlapping content.

CREDIT BY SELF_ACQUIRED COMPETENCY IPFW busines programs do not award credit for self-acquired competency (experiential credit). Credit awarded on this basis, regardless of its source, will not apply toward IPFW business degrees.

ACADEMIC PROBATION You are on academic probation upon completion of a semester or summer session in which you fail to earn a semester GPA of 2.0 or higher.

IPFW General Education Requirements (41 credits)

Area I—Linguistic and Numerical Foundations Credits: 9

> COM 11400 - Fundamentals of Speech Communication Cr. 3.
> ENG W131 - Elementary Composition I Cr. 3.
> MA 15300 - Algebra and Trigonometry I Cr. 3.
> > (or an approved substitute with placement beyond MA 153)

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society Credits: 6

> PSY 12000 - Elementary Psychology Cr. 3.
> SOC S161 - Principles of Sociology Cr. 3.

Area IV—Humanistic Thought Credits: 6

Additional credits in Area IV: 3
PHIL 11100 - Ethics Cr. 3.

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Additional General Education Credits: 12

Business and Economics Requirements (22 credits)

BUS A201 - Principles of Financial Accounting Cr. 3.
BUS A202 - Principles of Managerial Accounting Cr. 3.
BUS K200 - Computer Literacy Concepts for Business Cr. 0.
BUS K211 - Spreadsheets for Business Cr. 1.
BUS K212 - Introduction to Database Management Cr. 1.
BUS K213 - Internet Literacy for Business Cr. 1.
BUS L200 - Elements of Business Law Cr. 3.
BUS W204 - Social, Legal, and Ethical Implications of Business Decisions Cr. 3.
ECON E201 - Introduction to Microeconomics Cr. 3.
ECON E202 - Introduction to Macroeconomics Cr. 3.

Note

As the requirements for the Bachelor of Science in Business change, the requirements for the A.S.B. option in business administration are also likely to change in order to ensure that the credits in this option can be applied toward the B.S.B.

Total Credits: 63

Chemical Methods (A.S.)

Program: A.S.
Department of Chemistry
College of Arts and Sciences

Science Building 496 ~ 260-481-6289 ~ www.ipfw.edu/chem

The student learning outcomes for the degree are as follows:

Mathematical and quantitative reasoning
Students will be able to analyze, synthesize, and comprehend experimental and computational data describing the physical universe.

Classical and instrumental laboratory techniques: both analytical and synthetic
Students will learn precise measuring techniques as well as careful and meticulous record keeping. They will master the use of a variety of modern instruments and will become proficient in fundamental organic synthetic methods

Individual and collaborative problem-solving
> The student will develop independent problem-solving skills as well as the ability to work collaboratively in a term environment.

Summary of key concepts
> In the teaching of Chemistry from the point-of-view of various sub-disciplines, the following concepts form the core course content. It should be noted that courses offered by the IPFW Department of Chemistry will include, but are not simply limited to, the following points of emphasis:

Analytical Chemistry
-- Analytical methods (classical and instrumental)
-- Sensitivity and detection limits
-- Statistical treatment of data

General Chemistry
-- Semi-quantitative microscopic model of the physical universe based on macroscopic observations
-- Terminology
-- Periodic relationships
-- Elementary computational skills
-- Introductory laboratory skills

Organic Chemistry
-- Chemical bonding and structure including valence bond and molecular orbital theories
-- Reactivity, reaction mechanisms, and properties of the important functional groups
-- Synthesis
-- Spectroscopic determination of structure
-- Material science and bio-organic chemistry

The Associate of Science with a major in chemical methods program helps you prepare for a career as a chemical technician. Many industries have found it desirable to employ persons with a basic knowledge of chemistry. Such industries may be concerned with implementing or monitoring safe waste-disposal procedures, conducting standardized testing that uses routine chemical procedures, observing and measuring properties of materials following some type of compounding procedure, or recording data and making calculations that require some knowledge of chemistry. The A.S. with the major in chemical methods is a technical degree designed to meet such needs and is not recommended for students who wish to pursue a bachelor's program.

To earn the A.S. with a major in chemical methods, you must fulfill the requirements of IPFW (see Part 8) and complete the following courses. In addition, you must earn a grade of C or higher for each of the chemistry core courses.

IPFW General Education Requirements

Area I—Linquistic and Numerical Foundations Credits: 9

COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
MA 15300 - Algebra and Trigonometry I Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Chemistry Core

CHM 11500 - General Chemistry Cr. 4.
CHM 11600 - General Chemistry Cr. 4.
CHM 22400 - Introductory Quantitative Analysis Cr. 4.
CHM 25400 - Organic Chemistry Laboratory Cr. 1.
CHM 25500 - Organic Chemistry Cr. 3.
CHM 25600 - Organic Chemistry Cr. 3.
CHM 25800 - Organic Chemistry Laboratory Cr. 1.

Supporting Courses

Credits in computer science Credits: 3–4
ENG W233 - Intermediate Expository Writing Cr. 3.
MA 22700 - Calculus for Technology I Cr. 4.
PHYS 21800 - General Physics Cr. 4.
PHYS 21900 - General Physics II Cr. 4.

Electives Credits: 12–13

Total Credits: 61–63

Civil Engineering Technology (A.S.)

Program: A.S.
Department of Manufacturing and Construction Engineering Technology and Interior Design
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 221 ~ 260-481-4127 ~ www.mcet.ipfw.edu

The student learning outcomes for the degree are as follows:

An appropriate mastery of the knowledge, techniques, skills and modern tools of their disciplines.
Utilize graphic techniques to produce engineering documents.
Utilize modern surveying methods for land measurement and/or construction layout.
Estimate material quantities for technical projects.
An ability to apply current knowledge and adapt to emerging applications of mathematics, science, engineering and technology.
 Utilize current industry standard equipment.
 Employ productivity software to solve technical problems.
An ability to conduct, analyze and interpret experiments and apply experimental results to improve processes.
 conduct standardized field and laboratory testing of materials.
An ability to apply creativity in the design of systems, components or processes appropriate to program objectives.
 In-class projects requiring design decisions.
An ability to function effectively on teams.
 Actively participate in team activities during and outside class.
 Resolve problems as they arise.
An ability to identify, analyze and solve technical problems.
 Determine forces and stresses in elementary structural systems.
 Solve pressure flow problem.

Solve open channel flow problem

Close a traverse survey.

An ability to communicate effectively.

Demonstrate effective oral communication skills.

Demonstrate effective written communication skills.

Demonstrate effective graphic communication skills.

A recognition of the need for, and an ability to engage in lifelong learning.

Require library research and reporting.

Require Web research and reporting.

An ability to understand professional, ethical and social responsibilities.

Demonstrate knowledge of professional code of ethics.

Demonstrate knowledge of professional code of ethics.

Service learning component.

A respect for diversity and a knowledge of contemporary professional, societal and global issues.

Social studies elective.

Humanities elective.

A commitment to quality, timeliness, and continuous improvement.

Quality and timeliness is required aspect of course.

Course evaluation performed each semester, software updates.

To earn the A.S. with a major in civil engineering technology, you must fulfill the requirements of IPFW (see Part 8); the College of Engineering, Technology, and Computer Science (see Part 4); and those described below:

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations Credits: 11

COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
MA 15900 - Precalculus Cr. 5.

Area III—The Individual, Culture, and Society Credits: 3

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 3

See Part 2 General Education Requirements for approved courses

ETCS General Distribution Requirements (11 credits)

PHYS 21800 - General Physics Cr. 4.
PHYS 21900 - General Physics II Cr. 4.
STAT 30100 - Elementary Statistical Methods I Cr. 3.

Core and Concentration (Major) Courses (40 credits)

ARET 12300 - Construction Graphic Communication Cr. 3.
ARET 12400 - Architectural Engineering Construction I Cr. 3.
ARET 16700 - Construction Systems and Materials Cr. 3.

CET 10400 - Elementary Surveying Cr. 3.
CET 10800 - Route Surveying and Design Cr. 3.
CET 20600 - Construction Surveying Cr. 3.
CET 20900 - Land Surveying and Subdivision Cr. 3.
CET 25300 - Hydraulics and Drainage Cr. 3.
CET 26600 - Materials Testing Cr. 3.
CNET 27600 - Specs, Contracts, and Codes Cr. 3.
CNET 28000 - Quantity Estimating Cr. 3.
ET 19000 - Statics Cr. 3.
ET 20000 - Strength of Materials Cr. 3.

Total Credits: 68

Commercial Art (A.S.)

Program: A.S. in Commercial Art
Department of Visual Communication and Design
College of Visual and Performing Arts

Visual Arts Building 213 ~ 260-481-6709 ~ www.ipfw.edu/vpa/vcd

The student learning outcomes for the degree are as follows:

Visual communication and Design provides an exceptional professional degree program which combines creative development in an artistic discipline with career preparation. Visual Communication and Design students demonstrate:

- Effective skills in written, oral, and multimedia communication while articulating their ideas in an appropriate media.
- Visual information literacy skills and quantitative reasoning as a means of gaining written and visual knowledge while drawing reliable conclusions in their chosen discipline.
- Critical thinking and problem solving while also evaluating their ideas and technological competencies.
- Artistic and scholarly collaboration with continuous personal growth to the highest levels of personal integrity and professional ethics.
- Knowledge and skills based upon an understanding of historical traditions that formed ones own and other cultures.
- A commitment to mutual respect through free and open visual inquiry and communication.

This two-year program helps an individual prepare for entry-level employment opportunities in the applied arts, including illustration, layout, package design, display/exhibit design, and computer imaging. An exit portfolio review is required of all A.S. degree seeking students. Upon completion of the A.S. program and a successful portfolio presentation, a student may choose to enter the B.F.A. program in computer art, graphic design, or photography.

To earn the A.S. in commercial art, students must fulfill the requirements of IPFW and the College of Visual and Performing Arts, complete curriculum requirements, and earn a grade of C or better in each required VCD course.

IPFW General Education Requirements Credits: 18

Area I—Linguistic and Numerical Foundations

See Part 2 General Education Requirements for approved courses

Quantitative reasoning course Credits: 3
COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.

Areas II–IV Credits: 9

See Part 2 General Education Requirements for approved courses

Foundations Credits: 12

FINA P121 - Drawing Fundamentals I-II Cr. 3.
FINA P122 - Drawing Fundamentals I-II Cr. 3.
FINA P151 - Design Fundamentals I-II Cr. 3.
FINA P152 - Design Fundamentals I-II Cr. 3.

Art History Credits: 6

FINA H111 - Ancient and Medieval Art Cr. 3.
FINA H112 - Renaissance Through Modern Art Cr. 3.

Studio Credits: 27

Studio electives in VCD or FINA Credits
VCD P253 - Principles of Graphic Design I Cr. 3.
VCD P254 - Principles of Graphic Design II Cr. 3.
VCD P261 - Layout and Finished Art Cr. 3.
VCD P271 - Illustration I Cr. 3.
VCD P272 - Illustration II Cr. 3.
VCD P273 - Computer Art and Design I Cr. 3.

Total Credits: 63

Dental Hygiene (A.S.)

Program: A.S. in Dental Hygiene
Department of Dental Education
College of Health and Human Services

Neff Hall 150 ~ 260-481-6837 ~ www.ipfw.edu/dental

The A.S. in Dental Hygiene program prepares students for a career as a dental health professional who specializes in educational, preventive, and therapeutic oral healthcare. The dental hygiene program involves one year of prerequisite courses and two years of dental hygiene courses, and combines didactic, laboratory, and clinical courses. The program offers a full-time curriculum that is accredited by the Commission on Dental Accreditation of the

American Dental Association, 211 E. Chicago Ave. # 780, Chicago IL 60611-6983, telephone: (312) 440-2500, http://www.ada.org

Dental hygienists who graduate with an Associates degree are required to take national, regional and state licensing examinations and are eligible to work in private dental offices, dental clinics and hospitals, public health facilities, and dental research facilities.

The student learning outcomes for the degree are as follows:

Demonstrate breadth of knowledge in principles of social sciences, basic and dental sciences.

Demonstrate proficiency in assessing, planning, treating, and evaluating oral conditions and diseases.

Interpret, evaluate and contribute to current dental research and apply that knowledge to demonstrate dental hygiene skills necessary for life-long learning.

Demonstrate the highest levels of personal integrity and professional ethics in the delivery of dental hygiene services.

Promote the dental hygiene profession through service learning activities, affiliations with professional organizations, and partnerships with the community.

Design, implement, and evaluate community oral health programs appropriate for the diverse, multicultural communities in northeastern Indiana.

Demonstrate knowledge and skills necessary to be responsible dental professionals and leaders in local, regional, national, and international organizations and communities.

Demonstrate proficiency in critical thinking, reasoning, questioning, and decision-making skills.

Demonstrate the written, oral, and multimedia skills necessary to communicate effectively in diverse professional and educational settings for multicultural audiences.

Admission Criteria

Admission to the Dental Hygiene program is limited and competitive, and admission to IPFW does not confer acceptance to the Dental Hygiene program. To be admitted to the A.S. program, prospective dental hygiene students must first be admitted to IPFW as a pre-dental hygiene student, complete the prerequisite courses listed below (or equivalent courses at another accredited college or university), then apply separately to the Dental Hygiene program. Applications for acceptance into the Dental Hygiene program **MUST BE received by February 1**, for admission into the program in the following fall semester.

Prerequisite Courses

To apply for the A.S. in Dental Hygiene program, you must complete the prerequisite courses listed below by May 25 of the application year with a prerequisite GPA of 3.3 or higher:

BIOL 20300 - Human Anatomy and Physiology Cr. 4.
BIOL 20400 - Human Anatomy and Physiology Cr. 4.
CHM 11100 - General Chemistry Cr. 3.
CHM 11200 - General Chemistry Cr. 3.
COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
PSY 12000 - Elementary Psychology Cr. 3.

SOC S161 - Principles of Sociology Cr. 3.

Total Credits: 26

Corequisite course

NOTE: Microbiology (BIOL 220) must be completed prior to beginning the Dental Hygiene professional program. Since Microbiology is not calculated into the prerequisite GPA for admission, it may be completed during summer sessions, just prior to admission into the dental hygiene program. However, the student's acceptance is based on successful completion of Microbiology with a grade of C- or better prior to the beginning of Fall semester. Failure to complete this required corequisite course with a C- or better will result in the student being withdrawn from the professional program and their position given to the next qualified applicant.

BIOL 22000 - Microbiology for Allied Health Professionals Cr. 4.

Class Selection Process

Applicants must maintain a GPA of 3.3 or higher for these prerequisite courses. Meeting the minimum GPA does NOT guarantee a position in the program. Applicants are ranked and accepted each year based on their prerequisite GPA. Therefore, the GPA necessary for admission varies each year with the applicant pool. Admission is competitive and a prerequisite GPA of at least 3.6 or higher is recommended. In the event of multiple applicants who have the same prerequisite GPA, they will be ranked within that prerequisite GPA level by their cumulative GPA.

Applications for acceptance into the Dental Hygiene program **MUST BE received by February 1**, for admission into the program in the following fall semester.

- Prerequisite courses must be completed with a grade of "C-" or better. Courses graded on a pass/fail option will not be considered.
- Prerequisite courses may be repeated only one time, with the most recent grade used in the prerequisite GPA calculation. A maximum of two prerequisite courses may be retaken to improve the grades and GPA ranking.
- Credits in human anatomy, physiology, chemistry and microbiology must be completed within five years of admission to the professional program. Credits in English composition, speech, psychology, and sociology will be accepted for 10 years. Outdated courses must be retaken.
- Advanced Placement (AP) courses in English and psychology are acceptable, if AP scores are 4.0 or higher. No other AP courses will be accepted.
- Transfer courses accepted by IPFW as "undistributed" must be evaluated by the applicable department (i.e. chemistry or biology) before they are accepted as prerequisite courses.

Students who are returning to IPFW, after an absence of 5 or more years, are eligible for the Academic Renewal Option. This option must be exercised during the student's first semester back at IPFW. Interested students should petition the program's admissions committee, by contacting their academic advisor.

University Preference

Priority consideration will be given to students who have completed the required pre-dental hygiene courses at IPFW or another Indiana University or Purdue University campus.

Special Academic Regulations

In addition to completion of the required pre-requisite and co-requisite courses, acceptance into the Dental Hygiene program is contingent upon an applicant's ability to meet the following additional requirements:

> Demonstrate compliance with the College of Health and Human Services Technical Standards.
> Successful completion of a specified background check at student's expense.
> Submit military discharge papers, if applicable.
> Pass a drug screening test, if applicable.
> Complete Compliance Regulations for Students in Dental Education.

Tattoos and Head and Neck Piercings

The dental profession is extremely conservative. In clinical settings, tattoos and head and neck piercings are not considered acceptable in the health science professions. If students have tattoos that are noticeable, they must be covered by clothing. If they cannot be covered by clothing, students are required to cover tattoos with bandages. For clinical attire, all head and neck piercings must be removed, including plugs.

Attendance

Because of the experiential learning process used in all dental hygiene courses, attendance is essential and mandatory. Some evening hours are required for additional clinical experiences and professional association meetings.

Compliance: Physicals, Immunizations, TB, CPR, Background Checks, and Potential Drug Screening

Before beginning a Dental Education program, students must submit evidence that they have completed a recent (the summer before the program starts) physical examination, completed recent (the summer before the program starts) TB testing, Hepatitis B immunizations and titer, and hold a current CPR certification at the professional/ healthcare-provider level with the American Heart Association or American Red Cross.

Criteria for Dismissal from the Dental Hygiene Program

A student who is dismissed from the program may appeal the decision to the Department of Dental Education. If the student is dismissed for failure to meet the university's minimum academic standards, application for readmission must follow the procedures established by the university.

Dismissal from the Dental Hygiene Program may result from professional misconduct. Students who have been accepted to the program will receive a program manual at summer orientation that must be read before they start the program.

The College of Health and Human Services Academic and Professional Misconduct Appeals Policy and forms can be found at http://www.ipfw.edu/hhs/resources/appeals.shtml

Program Requirements

After acceptance into the program, you must fulfill the requirements of IPFW (see Part 8) and Dental Education (Part 4), and satisfactorily complete the following courses:

NOTE: It is required that microbiology (BIOL 220) be completed prior to beginning the Dental Hygiene program. Microbiology taken more than five years prior to admission into the professional program must be retaken.

BIOL 22000 - Microbiology for Allied Health Professionals Cr. 4.
DAST A112 - Dental and Medical Emergencies and Therapeutics Cr. 2.
DAST A300 - Special Topics in Dental Education Cr. 1-4.
DHYG H211 - Head and Neck Anatomy Cr. 2.
DHYG H214 - Oral Anatomy Cr. 3.
DHYG H215 - Pharmacology and Therapeutics (lecture) Cr. 2.
DHYG H216 - Chemistry and Nutrition- First Year Cr. 2-3.
DHYG H217 - Preventive Dentistry Cr. 2.
DHYG H218 - Fundamentals of Dental Hygiene (lecture and lab) Cr. 5.
DHYG H219 - Clinical Practice I Cr. 3-4.
DHYG H221 - Clinical Dental Hygiene Procedures Cr. 1-2.
DHYG H301 - Clinical Practice II Cr. 4-5.
DHYG H302 - Clinical Practice III Cr. 4-5.
DHYG H303 - Radiology (lecture and lab) Cr. 1-2.
DHYG H304 - Oral Pathology Cr. 2.
DHYG H305 - Radiology Clinic I Cr. 1-2.
DHYG H306 - Radiology Clinic II Cr. 1.
DHYG H307 - Radiology Clinic III Cr. 1.
DHYG H308 - Dental Materials Cr. 2-3.
DHYG H309 - Practice of Community Dental Hygiene Cr. 2.
DHYG H320 - Practice Management, Ethics, and Jurisprudence Cr. 1-2.
DHYG H321 - Periodontics Cr. 1-2.
DHYG H344 - Senior Hygiene Seminar Cr. 1-2.
DHYG H347 - Dental Public Health Cr. 3-4.

Total Credits: 61

Dental Laboratory Technology (A.S.)

Program: A.S. in Dental Laboratory Technology
Department of Dental Education
College of Health and Human Services

Neff Hall Room 150 ~ 260-481-6837 ~ www.ipfw.edu/dental

The Associates degree in the Dental Laboratory Technology Program is accredited by the American Dental Association Commission on Dental Accreditation, 211 E Chicago Ave # 780, Chicago, IL 60611-6983, telephone (312) 440-2500, http://www.ada.org.

The student learning outcomes for the Dental Laboratory Technology degree are as follows:

Graduates of the Dental Laboratory Technology program will:

Demonstrate the breadth of knowledge in the principals of restorative dental prosthesis and dental sciences.

Demonstrate proficiency in the technical competency skills necessary to perform at or beyond an entry-level position in a dental laboratory.

Comprehend and apply dental terminology, and technical advancements in the dental laboratory technology profession.

Demonstrate ethical work habits and behavior patterns that are required for the success and advancement in the dental profession.

Demonstrate the need for continued learning and professional development locally, nationally and internationally in the field of dental laboratory technology.

Demonstrate the written, oral and multimedia skills necessary to communicate effectively in multicultural/diverse settings.

Demonstrate skills in critical thinking, interpretation, reasoning, questioning, and decision making in the dental profession.

Demonstrate proficiency in interpreting and evaluating current dental prosthetic research and apply that knowledge to demonstrate dental laboratory skills necessary for life-long learning.

Promote the dental laboratory technology profession through service learning activities, affiliations with professional organizations, and partnerships with dental companies and the community.

The Dental Laboratory Technology program curriculum includes didactic and laboratory courses along with two prerequisite courses, two preferred admission courses, and two years of professional dental laboratory courses. Students are designated as pre-dental laboratory students prior to admission to the program. The professional curriculum is a structured, full-time program beginning each fall semester. A Dental Laboratory Technology degree prepares graduates for a career as a dental health professional in the construction of restorative dental prostheses prescribed by a dentist. Upon completion of the program, graduates are eligible to take a written Comprehensive Examination and one written Specialty Examination. After successful completion of these two written examinations, passing an additional practical examination will enable the graduate to become a certified dental technician. These examinations are offered by the National Board for Certification.

Application to the Program

Applicants must also make an appointment with a dental laboratory advisor to discuss the program and receive current information regarding admission, prerequisite requirements, and possible degree completion options. To make an appointment with your advisor, log onto the dental education website http://www.ipfw.edu/dental click on advisors and follow the instructions to find your academic advisor.

In order to apply to the Dental Laboratory Technology Program a student must:

- Admission to IPFW does not confer admission to the program. To be admitted to the dental laboratory technology program prospective students must apply separately to both IPFW and the dental laboratory technology program.

- Prospective dental laboratory technology students must complete IPFW prerequisite courses listed below or equivalent courses at another accredited college or university. These courses may not be graded on a pass/not-pass option. A minimum prerequisite GPA of 2.0 on a 4.0 scale and a minimum cumulative GPA of 2.0 on a 4.0 scale is required for all applicants.

- The dental laboratory technology program is limited to 20 students per academic year with a new class beginning each fall semester. The separate application required for admission to the dental laboratory technology program is obtained by contacting the Department of Dental Education. The application for entry to the dental laboratory program must be received no later than June 15 of the year an applicant wishes to enter the program. The number of eligible applicants each year exceeds the number of spaces available.

Class Selection Process

Acceptance into the Dental Laboratory Technology Program is based on the following:

- Applicants must have a minimum IPFW grade-point average (GPA) of 2.0 on a 4.0 scale in the 6 hours of pre-dental laboratory curriculum along with a minimum cumulative GPA of 2.0 on a 4.0 scale. The GPA is calculated on only the 6 hours of pre-dental laboratory technology curriculum taken at IPFW or at other Purdue University or Indiana University campuses. Applicants are ranked based on this GPA. A minimum GPA does not guarantee admission. The actual GPA necessary for admission varies with the GPA distribution of the applicant pool.

- All transfer grades will be reviewed and evaluated in the admission process. Remedial or developmental courses (ENG R150, R151, R152, P131, W130, or MA 109) cannot be used to fulfill these prerequisite requirements.

- First-priority consideration for program admission will be given to students who have completed all 6 hours of pre-dental laboratory technology curriculum at IPFW or at other Purdue University or Indiana University campuses. Students who complete some of their prerequisite courses at IPFW, Indiana University, or Purdue University and other colleges/universities will be considered second for entrance into the program. Students who complete all their prerequisite courses at other colleges/universities that are not IPFW, Indiana University, or Purdue University courses will be considered third for entrance into the program.

- Should a tie in applicants' GPAs occur, rank ordering will be based upon the applicants' cumulative GPA.

- Applicants must return the acceptance form by the deadline stated in the acceptance letter.

- Demonstrate meeting the College of Health and Human Services Technical Standards.

- Students must submit evidence that they have completed the following before classes begin fall semester:

  - a recent physical examination (the summer before the program begins)

  - a recent TB testing (the summer before the program begins)

  - received the three Hepatitis B immunizations (before the program begins) and a Hepatitis B titer (blood test)

  - submitted proof of payment for their Purdue Professional Liability Insurance coverage. Purdue professional liability insurance is not valid unless it has been paid.

  - complete a criminal background check. Students will receive online instructions at orientation.

- Applicants who have served in the military must submit military discharge papers.

- Students in the professional dental programs must pass a drug screening test, if requested.

Admission Policies

Reapplying. Students who have not been accepted, but who are qualified, may reapply for admission. Students who decline admission two times will no longer be considered.

Repeat Attempts. A student may make two graded attempts at a prerequisite course, with the most recent grade calculated in the prerequisite GPA. The student's two attempts will include any graded attempt, whether or not eliminated from the student's GPA by grade replacement.

Academic Renewal. Students who are returning to IPFW after five years or more are eligible for the Academic Renewal Option. The Academic Renewal Option must be exercised during a student's first semester back at IPFW, regardless of when the student applies for admission to the Dental Laboratory Technology Program. The Program's admission committee will recognize IPFW's Academic Renewal Option when reviewing an applicant for admission.

Special Academic Regulations for Students in the Department of Dental Education

Tattoos and Head and Neck Piercings

The dental profession is extremely conservative. Tattoos and head and neck piercings are not acceptable in the health science professions. If students have tattoos that are noticeable, they must be covered by clothing. If they cannot be covered by clothing, students are required to cover tattoos with bandages. All head and neck piercings must be removed.

Attendance

Because of the experiential learning process used in all dental laboratory courses, attendance is essential and mandatory. Some evening hours are required and professional association meetings.

Criteria for Dismissal from the Dental Laboratory Technology Program

- A student who is dismissed from the program may appeal the decision to the Department of Dental Education. If the student is dismissed for failure to meet the university's minimum academic standards, application for readmission must follow the procedures established by the university.

- Dismissal from the Dental Laboratory Program may result from professional misconduct. Students who have been accepted to the program will receive a program manual at summer orientation that must be read before they start the program.

- The College of Health and Human Services Academic and Professional Misconduct Appeals Policy and forms can be found at http://www.ipfw.edu/hhs/resources/appeals.shtml

Prerequisite Courses

To apply for the dental laboratory technology program, prerequisite courses must be completed by July 1st with a grade of C- or better in each prerequisite course. Prerequisite courses may be repeated one time. The most recent grade will be used in prerequisite GPA calculation.

COM 114
ENG W131

Preferred Admission Courses

(with a grade of C- or better)

For preferred admission, the following courses must be completed by July 1.

BUS W100
STAT 125

IPFW General Education Requirements (12 credits)

BUS W100 - Principles of Business Administration Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.

One of the following: Credits 3

COM 11400 - Fundamentals of Speech Communication Cr. 3.
COM 21200 - Approaches to the Study of Interpersonal Communication Cr. 3.

One of the following: Credits: 3

MA 14900 - Basic and College Algebra Cr. 5.
MA 15300 - Algebra and Trigonometry I Cr. 3.
STAT 12500 - Communicating with Statistics Cr. 3.

Dental Laboratory Technology Program Requirements (60 credits)

To earn an A.S. in dental laboratory technology, you must fulfill the requirements of IPFW (see Part 8) and the
Department of Dental Education, and satisfactorily complete the following courses:
DLTP D111 - History, Ethics, Organization Cr. 1.
DLTP D112 - Dental Anatomy Cr. 4.
DLTP D113 - Basic Physics, Chemistry, and Dental Materials Cr. 5.
DLTP D114 - Occlusion Cr. 3.
DLTP D125 - Crown and Bridge Prosthodontics I Cr. 3.
DLTP D126 - Orthodontics/ Pedodontics Appliances I Cr. 3.
DLTP D127 - Complete Denture Prosthodontics I Cr. 4.
DLTP D128 - Partial Denture Prosthodontics I Cr. 3.
DLTP D129 - Dental Ceramics I Cr. 3.
DLTP D215 - Crown and Bridge Prosthodontics II Cr. 4.
DLTP D216 - Orthodontics/ Pedodontics Appliances II Cr. 3.
DLTP D217 - Complete Denture Prosthodontics II Cr. 3.
DLTP D218 - Partial Denture Prosthodontics II Cr. 3.
DLTP D219 - Dental Ceramics II Cr. 4.
DLTP D222 - Practical Laboratory Experience Cr. 4-6.

Credits from among two of the following: Credits: 8

DLTP D225 - Specialty in Crown and Bridge Prosthodontics Cr. 4.
DLTP D226 - Specialty in Orthodontics/ Pedodontics Cr. 4.
DLTP D227 - Specialty in Complete Denture Prosthodontics Cr. 4.
DLTP D228 - Specialty in Partial Denture Prosthodontics Cr. 4.
DLTP D229 - Specialty in Dental Ceramics Cr. 4.

Total Credits: 72

Early Childhood Education (A.S.)

Program: A.S.
Department of Educational Studies
School of Education

Neff Hall 250 ~ 260-481-6441 ~ www.ipfw.edu/educ

The student learning outcomes for the degree are as follows:

Becoming more caring, humane and functional citizens in a global, multicultural, democratic society

Improving the human condition by creating positive learning environments

Becoming change agents by demonstrating reflective professional practice

Solving client problems through clear, creative analyses

Assessing client performance, creating and executing effective teaching, counseling, and educational leadership by utilizing a variety of methodologies reflecting current related research

Utilizing interdisciplinary scholarship, demonstrating technology and critical literacies, and effectively communicating with all stakeholders.

The A.S. in early childhood education program provides preparation for workers in nursery schools, Headstart programs, and preschool programs. It does not qualify you for teacher licensure. However, most of the courses can be applied toward a bachelor's degree in elementary education which does lead to teacher licensure.

To earn the A.S. in early childhood education, you must fulfill the requirements of IPFW (see Part 8) and the School of Education.

This program is open only to new transfer students and to students admitted to IPFW prior to fall 2010.

IPFW General Education Requirements Credits: 30

CSD 11500 - Introduction to Communicative Disorders Cr. 3.

COM 11400 - Fundamentals of Speech Communication Cr. 3.
  (a grade of B or better is required)

EDUA F300 - Topical Exploration in Education Cr. 1-3.
  Credits: 2

EDUC H340 - Education and American Culture Cr. 2-3.
  (corequisite with EDUC E317) Credits: 3.

EDUC K201 - Schools, Society, and Exceptionality Cr. 1-3.
  Credits: 1

EDUC M101 - Laboratory/Field Experience Cr. 0-3.
  (corequisite with EDUC W200) Credits: 0.

EDUC Q200 - Introduction to Scientific Inquiry Cr. 1-3.
  Credits: 1

EDUC W200 - Using Computers for Education Cr. 1.
  (a grade of B or better is required)

ENG W131 - Elementary Composition I Cr. 3.
  (a grade of B or better is required)

MA 10100 - Mathematics for Elementary Teachers I Cr. 3.

MUS Z241 - Introduction to Music Fundamentals Cr. 2.

One of the following: Credits: 3

PSY 12000 - Elementary Psychology Cr. 3.

SOC S161 - Principles of Sociology Cr. 3.

One of the following Credits:3

ENG L101 - Western World Masterpieces I: Ancient to Renaissance Cr. 3.

ENG L102 - Western World Masterpieces II: Renaissance to Modern Cr. 3.

Professional Courses Credits: 34

(a grade of B or better is required in all Professional Courses)

    EDUC E317 - Practicum in Early Childhood Education Cr. 4.
        (corequisite with EDUC H340)
    EDUC E330 - Infant Learning Environments Cr. 3.
    EDUC E333 - Inquiry in Mathematics and Science Cr. 3.
        (pre- or corequisite EDUC P249)
    EDUC E335 - Introduction to Early Childhood Education Cr. 3.
    EDUC E336 - Play as Development Cr. 3.
        (pre- or corequisite EDUC P249)
    EDUC E337 - Classroom Learning Environments Cr. 3.
        (pre- or corequisite EDUC P249)
    EDUC E338 - The Early Childhood Educator Cr. 3.
    EDUC E346 - Discipline/Parenting for Young Children Cr. 3.
    EDUC E347 - Language Arts for Early Childhood Cr. 3.
    EDUC K206 - Teaching Methods for Students with Special Needs Cr. 1-3.
        Credits: 3
    EDUC M101 - Laboratory/Field Experience Cr. 0-3.
        (corequisite with EDUC P249, EDUC E330, EDUC E337) Credits: 0.
    EDUC P249 - Growth and Development in Early Childhood Cr. 3.

Total Credits: 64

Electrical Engineering Technology (A.S.)

Program: A.S.
Department of Computer and Electrical Engineering Technology & Information Systems and Technology
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 205 ~ 260-481-6338 ~ www.ceit.ipfw.edu

The student learning outcomes for the degree are:

Graduates will have:

    An appropriate mastery of the knowledge, techniques, skills and modern tools of electrical engineering technology.
    An ability to apply current knowledge and adapt to emerging applications of mathematics, science, engineering and technology.
    An ability to conduct, analyze and interpret experiments and apply experimental results to improve processes.
    An ability to apply creativity in the design of systems, components or processes appropriate to program objectives.
    An ability to function effectively on teams.
    An ability to identify, analyze and solve technical problems.
    An ability to communicate effectively in writing, and in oral presentation.
    A recognition of the need for, and an ability to engage in lifelong learning.
    An ability to understand professional, ethical and social responsibilities.
    The knowledge of and respect for diverse backgrounds and contemporary societal and global issues concerning the profession.
    A commitment to quality, timeliness, and continuous improvement.

The two-year A.S. EET program is a combination of courses in electricity, electronics, computers, mathematics, science, and general academic areas. The program helps students prepare for employment as electrical/electronic or computer technicians,and provides knowledge in fields such as computer electronics, local area networking, industrial electronics, communication electronics, military electronics, automation, electronics servicing, and electrical power.

The CEIT department also offers the Bachelor of Science with a major in electrical engineering technology, a Bachelor of Science with a major in computer engineering technology (CPET) and an Associate and Bachelor of Science with a major in information systems. In addition to the degrees, the department offers a minor in electronics, and minor in information systems and certificate programs in computer-controlled systems, electronic communications, power electronics systems, and computer networking.

To earn the A.S., you must fulfill the requirements of IPFW (see Part 8) and complete the following courses:

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations Credits: 9

COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
    ENG W131 Grade C or above required.
MA 15300 - Algebra and Trigonometry I Cr. 3.

Area II—Natural and Physical Sciences Credits: 4

PHYS 21800 - General Physics Cr. 4.

Area IV—Humanistic Thought Credits: 3

See Part 2 General Education Requirements for approved courses

Core and Concentration (Major) Courses Credits: 40

ECET 10200 - Electrical Circuits I Cr. 4.
ECET 11100 - Digital Circuits Cr. 4.
ECET 11400 - Introduction to Visual Basic Cr. 3.
ECET 14600 - Digital Circuits II Cr. 3.
ECET 15200 - Electrical Circuits II Cr. 4.
ECET 20400 - Analog Electronics II Cr. 4.
ECET 20500 - Introduction to Microprocessors Cr. 4.
ECET 23100 - Electrical Power and Controls Cr. 4.
ECET 26400 - C Programming Language Applications Cr. 3.
ECET 29600 - Electronic System Fabrication Cr. 2-3.
ECET 30200 - Introduction to Control Systems Cr. 4.
    or
ECET 30300 - Communications I Cr. 4.

Required non-ECET technical course Credits: 3

CPET 19000 - Problem Solving with MATLAB Cr. 1-4.

Required Math Courses Credits: 10

MA 15400 - Algebra and Trigonometry II Cr. 3.
MA 22700 - Calculus for Technology I Cr. 4.
MA 22800 - Calculus for Technology II Cr. 3.
    For A.S. can substitute CHM 111 or STAT 301 for MA 228

Total Credits: 69

English Concentration (A.A.)

Program: Concentration A.A.
Department of English and Linguistics

Liberal Arts Building 145 ~ 260-481-6841 ~ www.ipfw.edu/engl

 The student learning outcomes for the degree are as follows:

Students demonstrate the acquisition of a basic knowledge of language, writing, and British and American
    literature necessary for pursuit of a baccalaureate degree in English.
Students demonstrate the ability to apply basic critical thinking skills to the analysis of a variety of texts.
Students display the ability to communicate a basic understanding of English literature with rhetorical
    precision, clarity, and critical awareness.

The college's Associate of Arts program serves as an intermediate step toward completion of a baccalaureate degree.
The requirements encompass approximately the first half of the bachelor's degree program offered by the sponsoring
department. See Part 5 for complete requirements for related bachelor's degree.

Requirements for the Associate of Arts

IPFW General Education Requirements

Area I—Linquistic and Numerical Foundations Credits: 9

COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
    (with a grade of C or higher)
Quantitative Reasoning course with a grade of C or higher (except MA 10100)

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

One science course with a scheduled laboratory required.

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Credits in the first year of a foreign language Credits: 8

Credits in a concentration with a grade of C or higher in each course (see below) Credits: 15-21

Additional credits in approved elective courses Credits: 4-12

Total credits with a graduation GPA of at least 2.00: 60-63

Program Requirements

In addition to the courses listed below, you must complete MA 15300 or 16800 or STAT 12500 for your IPFW General Education course in Quantitative Reasoning. If you plan to continue for a bachelor's degree with a major in English (see Part 5), you should take the second year foreign-language courses as electives for the A.A.

Credits in American literature Credits: 3
Credits in British literature before 1700 Credits: 3
Credits in British literature after 1700 Credits: 3
Credits in language study Credits: 3
Credits in ENG W203 or a 300-400–level English writing course Credits: 3
ENG L202 - Literary Interpretation Cr. 3.

French Concentration (A.A.)

Program: Concentration A.A.
Department of International Language and Culture Studies
College of Arts and Sciences

Liberal Arts Building 267 ~ 260-481-6836 ~ www.ipfw.edu/ilcs

The student learning outcomes for the degree are as follows:

Acquire a basic foundation in language skills and a solid basis for further study in the language;
Demonstrate the ability to examine stereotypes and to respond in culturally appropriate ways in everyday situations in the target culture;
Develop an increased understanding of what it means to belong to a culture and awareness of how culture affects other interconnected issues of identity.

The college's Associate of Arts program serves as an intermediate step toward completion of a baccalaureate degree. The requirements encompass approximately the first half of the bachelor's degree program offered by the sponsoring department. See Part 5 for complete requirements for related bachelor's degree.

Requirements for the Associate of Arts

IPFW General Education Requirements

Area I—Linquistic and Numerical Foundations Credits: 9

COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
   (with a grade of C or higher)
MA 15300 - Algebra and Trigonometry I Cr. 3.
   Or
MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
   Or
STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

One Science course with a scheduled laboratory required.

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

Concentration Requirements

If you plan to continue for a bachelor's degree with a major in French, see Part 5 for B.A. requirements.

A grade of C or higher required in all concentration courses.

FREN F203 - Second-Year French I Cr. 3.
FREN F204 - Second-Year French II Cr. 3.
FREN F317 - French Language Skills I Cr. 3.
FREN F318 - French Language Skills II Cr. 3.

One of following Credits: 3

FREN F326 - French in the Business World Cr. 3.
FREN F330 - Introduction to Translating French and English Cr. 3.

Credits in the first year of a foreign language Credits: 8

Additional credits in approved elective courses Credits: 4-12

Total credits with a graduation GPA of at least 2.00: 60-63

General Studies (A.A.G.S.)

Program: A.A.G.S.
Division of Continuing Studies

Kettler Hall 144 ~ 260-481-6828 ~ www.ipfw.edu/dcs/gsdp

The student learning outcomes for the degree are as follows:

Speak and write precisely, clearly and persuasively.
Understand the nature and diversity of individuals, organizations, cultures, and societies.
Apply their knowledge in written, oral communication, or technical competencies.
Apply the knowledge gained across interdisciplinary boundaries.

General Studies offers a wide variety of personalized degree options to the traditional and nontraditional student. Students may individually tailor their program to combine a substantial core of courses basic to a traditional university education and study in career-related areas. Within the flexible framework of degree requirements, students may design an undergraduate program that can more readily meet their career and personal-development goals than can a traditional major. Students will be encouraged and assisted in developing a unique academic program complementing their individual interests, abilities, and intellectual and practical concerns.

In addition to taking advantage of the wide variety of daytime, evening, and weekend classes at IPFW, students may choose to earn credit toward their degree through correspondence study. Students may also earn credit by examination, and in some cases earn credit for significant, documentable self-acquired competencies when the learning outcomes have been comparable to those of university-level work. Consideration is given to all previously earned college credit from other accredited institutions. The Associate of Arts in General Studies and Bachelor of General Studies programs may also be tailored to the needs of those unable to study on campus during regularly scheduled periods. Both degrees may be completed online.

Both programs include courses in broad categories called required areas of learning (listed below) and elective credit that students may earn in any IPFW program. The required areas of learning provide broad exposure to the humanities, social sciences, and sciences, while the electives permit students to explore areas of interest, receive credit for prior university-level experiential learning, and tailor the degree to their individual needs. In each plan of study, students must demonstrate competency in each of the following areas: written communication (two courses), oral communication, mathematics, computer literacy, and a diversity course.

After students are admitted to a general studies degree program, students will develop a plan of study to meet their objectives. An advisor will provide assistance in this effort. For further information, refer to the current Indiana University School of Continuing Studies *General Studies Degree Bulletin*.

To earn an A.A.G.S., students must complete the following requirements:

IPFW General Education Requirements

Area I- Linguistic and Numerical Foundations

COM 11400 - Fundamentals of Speech Communication Cr. 3.

ENG W131 - Elementary Composition I Cr. 3.
STAT 12500 - Communicating with Statistics Cr. 3.

Required Areas of Learning

General studies is a university-wide degree program, certified through Indiana University's School of Continuing Studies. The program follows the same curriculum requirements throughout Indiana University.

Arts and Humanities Credits: 6

(depending upon course selection for general education)

Afro-American Studies	Foreign Language
Classical Studies	History
Communication	Journalism
Comparative Literature	Music
English (except R150 and W130)	Philosophy
Film	Religion
Fine Arts	Theatre
Folklore	Visual Communication and Design

Science and Mathematics Credits: 9

(depending upon course selection for general education)

ANTH B200 and E445 (only)
Astronomy
Biology
Chemistry
Computer Science (includes BUS K211, K212, K213, K214, K215, and K216)
ECON E270 (only)
Entomology
*ETCS 106
Forestry and Natural Resources
GEOG G107, G109, G315 (only)
Geology
Horticulture
Mathematics (except 109, 111, and 113)
Physics
PSY 120, 201, 310, 314, 329, and 416 (only)
SOC S351 (only)
SPEA K300 (only)
Statistics
*required course

Social and Behavior Sciences Credits: 12

(depending upon course selection for general education)

> Anthropology
> Economics
> Geography
> Linguistics
> Political Science
> Psychology
> Sociology
> SPEA J101 (only)
> WOST W210 (only)

12 credits in each required area of learning, including courses from at least two departments in each area

General Elective Courses Credits: 24

In consultation with an advisor, you are urged to concentrate electives in related areas.

Note

Students must complete at least 10 of the above credits after admission to the program. No more than 15 credits can be in any one subject. No more than 15 credits toward the AAGS may be awarded for successful completion of external exams such as CLEP. At least 15 credits must be taken within the IU system or as a Purdue student at IPFW.

Total Credits: 60

German Concentration (A.A.)

Program: Concentration A.A.
Department of International Language and Culture Studies
College of Arts and Sciences

Liberal Arts Building 267 ~ 260-481-6836 ~ www.ipfw.edu/ilcs/

 The student learning outcomes for the degree are as follows:

> Acquire a basic foundation in language skills and a solid basis for further study in the language;
> Demonstrate the ability to examine stereotypes and to respond in culturally appropriate ways in everyday situations in the target culture;
> Develop an increased understanding of what it means to belong to a culture and awareness of how culture affects other interconnected issues of identity.

The college's Associate of Arts program serves as an intermediate step toward completion of a baccalaureate degree. The requirements encompass approximately the first half of the bachelor's degree program offered by the sponsoring department. See Part 5 for complete requirements for related bachelor's degree.

Requirements for the Associate of Arts

IPFW General Education Requirements

Area I - Linquistic and Numerical Foundations

COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
    (with a grade of C or higher)
    Quantitative Reasoning course, with a grade of C or higher:
MA 15300 - Algebra and Trigonometry I Cr. 3.
    Or
MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
    Or
STAT 12500 - Communicating with Statistics Cr. 3.

Area II-Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III-The Individual, Culture, and Society Credits: 6

    Recommended as a selection:
ANTH L200 - Language and Culture Cr. 3.
LING L103 - Introduction to the Study of Language Cr. 3.

Area IV—Humanistic Thought Credits: 6

Program Requirements

If you plan to continue for a bachelor's degree with a major in German, see Part 5 for B.A. requirements.

GER G203 - Second-Year German I Cr. 3.
GER G204 - Second-Year German II Cr. 3.
GER G318 - German Language Skills I Cr. 3-5.
    Credits: 3

One of following Credits: 3

GER G315 - Business German Cr. 3.
GER G319 - German Language Skills II Cr. 3.

One of following Credits: 3

GER G362 - Introduction to Contemporary Germany Cr. 3.

GER G363 - Deutsche Kulturgeschichte Cr. 3.

Credits in the first year of a foreign language Credits: 8

Additional credits in approved elective courses Credits: 4-12

Credits in a concentration with a grade of C or higher in each course (see below) Credits: 15-21

Total credits with a graduation GPA of at least 2.00: 60-63

History Concentration (A.A.)

Program: Concentration A.A.
Department of History
College of Arts and Sciences

Liberal Arts Building 209 ~ 260-481-6686 ~ www.ipfw.edu/hist

The student learning outcomes for the degree are as follows:

Have a basic introductory knowledge of the history of the United States, Europe, and other world areas;
Have a basic understanding of history as a method of intellectual investigation;
Have an appreciation for the relationship of the past to the culture and society of today; and
Have a foundation for making a decision to continue toward the B.A. in history.

If you plan to continue for a bachelor's degree with a major in history, see Part 5 for B.A. requirements.

Requirements for the Associate of Arts

IPFW General Education Requirements

Area I - Linquistic and Numerical Foundations Credits: 9

COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
   with a grade of C or higher
MA 15300 - Algebra and Trigonometry I Cr. 3.
   Or
MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
   Or
STAT 12500 - Communicating with Statistics Cr. 3.

Area II-Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

One Science course with a scheduled laboratory required.

Area III—The Individual, Culture, and Society Credits: 6

Area IV-Humanistic Thought Credits: 6

Program Requirements

HIST H105 - American History I Cr. 3.
HIST H106 - American History II Cr. 3.
HIST H113 - History of Western Civilization I Cr. 3.
HIST H114 - History of Western Civilization II Cr. 3.
Credits in upper-level American history Cr. 3.
Credits in upper-level European history Cr. 3.
Credits in upper-level Other World history Cr. 3.

Credits in a concentration with a grade of C or higher in each course (see below) Credits: 15-21

Credits in the first year of a foreign language Credits: 8

Additional credits in approved elective courses Credits: 4-12

Total credits with a graduation GPA of at least 2.00: 60-63

Industrial Engineering Technology (A.S.)

Program: A.S
Department of Manufacturing & Construction Engineering Technology and Interior Design
Technology College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 221 ~ 260-481-4127 ~ www.mcet.ipfw.edu

The student learning outcomes for the degree are as follows:

an appropriate mastery of the knowledge, techniques, skills and modern tools of the appropriate ET program.
Technical expertise in quality, metrology, advanced SPC, SQC, TQM, ISO standards, and design of experiments.
Technical expertise in ergonomics, work methods design, optimization, engineering economy, and cost estimating.
Technical expertise in facilities layout, production planning and control, queuing theory, modeling, and simulation.
Technical expertise in CAD, engineering graphics, GC&T, gage capability studies, and measurement uncertainty.

Technical expertise in materials, manufacturing processes, design for manufacturing and assembly, and CNC machining.

An ability to apply current knowledge and adapt to emerging applications of mathematics, science, engineering and technology.

An ability to conduct, analyze and interpret experiments and apply experimental results to improve processes.

An ability to apply creativity in the design of systems, components or processes.

An ability to function effectively on teams.

An ability to identify, analyze and solve technical problems.

An ability to communicate effectively.

A recognition of the need for, and an ability to engage in lifelong learning.

An ability to understand professional, ethical and social responsibilities.

A knowledge of and respect for diversity, contemporary societal and global issues related to the profession.

A commitment to quality, timeliness, and continuous improvement.

This program prepares graduates with knowledge, technical, analytical, and managerial skills necessary to develop, implement, and improve integrated systems in manufacturing and service industries that include people, materials, equipment, information, and energy. Graduates will be prepared for careers in higher levels of system design, integration, and management. To earn the B.S. with a major in industrial engineering technology, you must fulfill the requirements of IPFW (see Part 8), the College of Engineering, Technology, and Computer Science (see Part 4), and of the A.S., and complete the following credits, earning a grade of C or better in those courses that serve as prerequisites:

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

Grade of C or better required for the following courses.

COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
MA 15900 - Precalculus Cr. 5.

Area II—Natural and Physical Sciences

PHYS 21800 - General Physics Cr. 4.
    Grade of C or better required
PHYS 21900 - General Physics II Cr. 4.

Area III—The Individual, Culture, and Society

IET 10500 - Industrial Management Cr. 3.
    Grade of C or better required
PSY 12000 - Elementary Psychology Cr. 3.

Core and Concentration (Major) Courses

ETCS 10100 - Introduction to Engineering, Technology, and Computer Science Cr. 1.
IET 20004 - Techniques of Maintaining Quality Cr. 3.
    Grade of C or better required
IET 22400 - Production Planning and Control Cr. 3.
IET 25700 - Ergonomics Cr. 3.
IET 26700 - Work Methods Design Cr. 3.

Grade of C or better required
IET 31000 - Plant Layout and Material Handling Cr. 3.
   Grade of C or better required
MET 10400 - Technical Graphics Communications Cr. 3.
   Grade of C or better required
MET 10600 - Analytical and Computational Tools in MET Cr. 2.
   Grade of C or better required
MET 18000 - Materials and Processes Cr. 3.
   Grade of C or better required
MET 22300 - Introduction to Computer- Aided Modeling and Design Cr. 3.
   Grade of C or better required
MET 33500 - Basic Machining Cr. 3.
   Grade of C or better required

Additional Required Technical Courses

Grade of C or better required for the following courses.

ECET 26400 - C Programming Language Applications Cr. 3.
STAT 30100 - Elementary Statistical Methods I Cr. 3.

Required Support Courses

Grade of C or better required for the following course.

ENG W234 - Technical Report Writing Cr. 3.

Total Credits: 64

Information Systems (A.S.)

Program: A.S.
Department of Computer and Electrical Engineering Technology & Information Systems and Technology
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 205 ~ 260-481-6338 ~ www.ceit.ipfw.edu

 The student learning outcomes for the degree are as follows:

An ability to apply knowledge of computing and mathematics appropriate to the discipline.
An ability to analyze a problem and identify and define the computing appropriate to the discipline.
An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs.
An ability to function effectively on teams to accomplish a common goal.
An understanding of professional, ethical, legal, security and social issues and responsibilities.
An ability to communicate effectively with a range of audiences.
An ability to analyze the local and global impact of computing on individuals, organizations, and society.
Recognition of the need for and an ability to engage in continuing professional development.
An ability to use current techniques, skills, and tools necessary for computing practice.

An understanding of processes that support the delivery and management of information systems within a specific application environment.

This program is focused on fundamental computing courses. All requirements may be applied to the B.S. program in information systems. Graduates of the A.S. program typically continue in the B.S. program, although they are qualified for employment opportunities in the computer field.

To earn the A.S. with a major in information systems, you must fulfill the requirements of IPFW (see Part 8) and complete the following courses. Only courses in your major field in which you have earned a grade of C or better can be applied to the degree or used to satisfy prerequisites. A maximum of 10 credits of D grades will be accepted in other courses.

IPFW General Education Requirements Credits:18

Area I—Linguistic and Numerical Foundations Credits: 6

COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
    (or equivalent)

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society Credits: 3

OLS 25200 - Human Relations in Organizations Cr. 3.

Area IV—Humanistic Thought Credits: 3

See Part 2 General Education Requirements for approved courses

Core Requirements Credits: 19

IST 14000 - Introduction to Visual Basic Applications Cr. 3.
IST 16000 - Foundation and Role of Information Systems Cr. 3.
IST 20300 - Advanced Visual Basic Cr. 3.
IST 26000 - Enterprise Architecture Cr. 3.
IST 27000 - Data and Information Management Cr. 3.
CS 16000 - Introduction to Computer Science I Cr. 4.

Supporting Courses Credits: 18

BUS A201 - Principles of Financial Accounting Cr. 3.
ENG W234 - Technical Report Writing Cr. 3.
MA 17500 - Introductory Discrete Mathematics Cr. 3.

One of the following Credits: 3

BUS W100 - Principles of Business Administration Cr. 3.
IET 10500 - Industrial Management Cr. 3.

One of the following Credits: 3

ECON E200 - Fundamentals of Economics Cr. 3.
ECON E201 - Introduction to Microeconomics Cr. 3.

One of the following Credits: 3

MA 15300 - Algebra and Trigonometry I Cr. 3.
MA 15900 - Precalculus Cr. 5.

Approved Elective Credits: 6

Total Credits: 61

Interior Design (A.S.)

Program: A.S.
Department of Manufacturing & Construction Engineering Technology and Interior Design
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 221 ~260-481-4127 ~ www.mcet.ipfw.edu

The student learning outcomes for the degree are as follows:

Students are able to advance their learning.
> Be able to interact with multiple disciplines.
> Have opportunities for design work experience.

Students have the attitudes, traits, and values of professional responsibility, accountability, and effectiveness.
> Have critical, analytical, and strategic thinking abilities.
> Be able to have creative thinking (exhibit a variety of ideas, approaches, concepts with originality and elaboration).
> Have the ability to think visually and volumetrically.
> Have active listening skills leading to effective interpretation of requirement.

Students have a foundation in the fundamentals of art and design; theories of design, green design, and human behavior; and discipline-related history.
> Understanding design elements (for example, space, line, mass, shape, texture) and principles (for example, scale, proportion, balance, rhythm, emphasis, harmony, variety).
> Understanding color principles, theories, and systems (for example, additive and subtractive color; color-mixing; hue, value, and intensity; the relationship of light and color).
> Understanding theories of design and design composition.
> Understanding principles of lighting design (for example, color, quality, sources, use).
> Understanding of the history of architecture and finishes.

Students understand and apply the knowledge, skills, process, and theories of interior design.

    Apply 2-dimensional design elements and principles in interior design projects.

    Select and apply color in interior design projects.

    Have competent schematic design, concept development, and problem solving skills.

Students communicate effectively.

    Be competent in drafting with computer-aided techniques.

    Be competent in digital 3D modeling.

    Be competent in illustrative sketching.

    Be competent in presentation of color, materials, and furnishings (for example, sample boards, collages, mock-ups, digital representations).

    Be able to express ideas clearly in oral presentations and critiques.

    Be able to render by any medium, manual or computer-generated, that successfully communicates the design intent.

    Be able to communicate 3-dimensional space and form, such as in perspectives and models (computer-generated or manual).

The associate degree in interior design prepares you for employment as an interior design assistant, residential designer, kitchen design consultant, lighting and color consultant, drafts person, CAD operator, or product representative. You are prepared for these responsibilities through a blend of technical and practical design courses. The program is enhanced by overseas travel and study opportunities. Graduates will be prepared for immediate employment and continuation in the B.S. program.

To earn the A.S. with a major in interior design, you must satisfy the requirements of IPFW (see Part 8) and the College of Engineering, Technology, and Computer Science (see Part 4); earn a grade of C or better in ENG W131 and each required INTR course; and complete the requirements listed below:

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations Credits: 12

COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
MA 15300 - Algebra and Trigonometry I Cr. 3.
MA 15400 - Algebra and Trigonometry II Cr. 3.

Area II—Natural and Physical Sciences Credits: 3

PHYS 12500 - Light and Color Cr. 3.

Area III—The Individual, Culture, and Society Credits: 3

OLS 25200 - Human Relations in Organizations Cr. 3.

Area IV—Humanistic Thought Credits: 3

INTR 22000 - Architecture and Urban Form Cr. 3.

Core and Concentration (Major) Courses Credits: 44

ARET 12300 - Construction Graphic Communication Cr. 3.

ARET 12400 - Architectural Engineering Construction I Cr. 3.
ARET 16700 - Construction Systems and Materials Cr. 3.
ARET 28100 - Environmental Equipment for Buildings I Cr. 3.
CNET 27600 - Specs, Contracts, and Codes Cr. 3.
CNET 28000 - Quantity Estimating Cr. 3.
INTR 11100 - Introduction to Interior Design Cr. 3.
INTR 11200 - Residential Interior Design II Cr. 3.
INTR 12100 - Freehand Sketching Cr. 3.
INTR 12300 - Perspective Drawing Cr. 3.
INTR 13100 - Decorative Materials and Accessories I Cr. 3.
INTR 20100 - CAD for Interior Design Cr. 3.
INTR 20600 - Portfolio and Professional Presentation Cr. 1
INTR 24100 - Lighting and Color Design Cr. 3.
VCD F102 - Color Design Cr. 3.

Total Credits: 65

Labor Studies (A.S.)

Division of Labor Studies
Program Offered: A.S.L.S.

Kettler Hall G28 ~ 260-481-6831 ~ www.labor.iu.edu

The student learning outcomes for the degree are not available for this degree, contact the program office.

To earn the Associate of Science in Labor Studies, you must fulfill the requirements of IPFW (see Part 8) and successfully complete the following courses:

Program Requirements

Credits from the Labor Studies Core Credits: 15

Credits from the following: 15

LSTU L100 - Survey of Unions and Collective Bargaining Cr. 3.
LSTU L101 - American Labor History Cr. 3.
LSTU L110 - Introduction to Labor Studies: Labor and Society Cr. 3.
LSTU L190 - The Labor Studies Degree Cr. 1.
LSTU L200 - Survey of Employment Law Cr. 3.
LSTU L201 - Labor Law Cr. 3.
LSTU L203 - Labor and the Political System Cr. 3.
LSTU L205 - Contemporary Labor Problems Cr. 3.
LSTU L210 - Workplace Discrimination and Fair Employment Cr. 3.
LSTU L220 - Grievance Representation Cr. 3.
LSTU L230 - Labor and the Economy Cr. 3.
LSTU L240 - Occupational Health and Safety Cr. 3.
LSTU L250 - Collective Bargaining Cr. 3.
LSTU L251 - Collective Bargaining Laboratory Cr. 1-3.

LSTU L255 - Unions in State and Local Government Cr. 3.
LSTU L260 - Leadership and Representation Cr. 3.
LSTU L270 - Union Government and Organization Cr. 3.
LSTU L280 - Union Organizing Cr. 3.

Required Areas of Learning for Labor Studies

Arts and Humanities

Afro-American Studies
Classical Studies
Communication
Comparative Literature
English (except R150 and W130)
Folklore
Foreign Language
History
Journalism
Music
Philosophy
Theatre
Visual Arts

Sciences and Mathematics

Anthropology (B200 and E445 only)
Astronomy
Biology
Chemistry (except 100)
Computer Science (includes BUS K200, K211, K212, K213, K214, K215, K216)
Economics (E270 only)
Entomology
Forestry and Natural Resources
Geography (G107 and G304 only)
Geology
Horticulture
Mathematics (except 101, 102, 103, 109, 111, and 113)
Physics
Psychology (120, 201, 314, 333, 329, and 416 only)
Sociology (S351 only)
SPEA (K300 only)
Statistics

Social and Behavior Sciences

Anthropology
Economics
Geography
Linguistics
Political Science
Psychology

Sociology
SPEA (J101 only)
WOST (W210 only)

Additional credits in labor-studies courses Credits: 12

Arts and Humanities Area of Learning (12 credits)

Credits in a second writing course Credits: 3
Credits from at least two different subjects Credits: 6
ENG W131 - Elementary Composition I Cr. 3.

Social and Behavioral Sciences Area of Learning Credits: 9

Credits, including one economics course (ECON E201 is recommended); courses in this area must be selected from at least two different subjects

Science and Mathematics Area of Learning Credits: 6

Credits, including one course in computer science (recommended). Science and mathematics courses must be selected from at least two different subjects

Electives Credits: 6

Note

You must earn a minimum of 10 credits after admission to labor studies and may apply toward the degree no more than 15 credits in a single subject other than labor studies. You must complete at least 12 credits while enrolled as an IU student.

Total Credits: 60

Mathematics Concentration (A.A.)

Program Offered: Concentration A.A.
Department of Mathematical Sciences
College of Arts and Sciences

Kettler Hall 200 ~ 260-481-6821 ~ www.ipfw.edu/math

The student learning outcomes for the degree are as follows:

Students who complete the Associate of Arts Degree in Mathematics should be able to reason mathematically and should be good problem solvers.
Students should understand the role mathematics has played in solving important problems in a variety of disciplines, e.g. physics, engineering and business.

Students who complete the degree should be prepared to complete a Bachelor of Science Degree in Mathematics in two years with a full-time course load.

The requirement of a Quantitative Reasoning course in IPFW General Education Area I is satisfied by the courses under the program requirements. If you plan to continue for a bachelor's degree with a major in mathematics or mathematics teaching, see Part 5 for B.S. requirements.

IPFW General Education Requirements

Area I - Linquistic and Numerical Foundations Credits: 6

COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
    with a grade of C or higher
Quantitative Reasoning course, with a grade of C or higher

Area II-Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

One science course with a scheduled laboratory required.

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV-Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Program Requirements

MA 16500 - Analytic Geometry and Calculus I Cr. 4.
MA 16600 - Analytic Geometry and Calculus II Cr. 4.
MA 17500 - Introductory Discrete Mathematics Cr. 3.
MA 26300 - Multivariate and Vector Calculus Cr. 4.

One of the following Credits: 3

MA 30500 - Foundations of Higher Mathematics Cr. 3.
MA 35100 - Elementary Linear Algebra Cr. 3.

Credits in the first year of a foreign language Credits: 8

Credits in a concentration with a grade of C or higher in each course (see below) Credits: 15-21

Additional credits in approved elective courses Credits: 4-12

Total credits with a graduation GPA of at least 2.00: 60-63

Mechanical Engineering Technology (A.S.)

Program: A.S.
Department of Manufacturing and Construction Engineering Technology and Interior Design
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 221 ~ 260-481-4127 ~ www.mcet.ipfw.edu

The student learning outcomes for the degree are as follows:

An appropriate mastery of the knowledge, techniques, skills and modern tools of the appropriate ET program.

An ability apply current knowledge and adapt to emerging applications of mathematics, science, engineering and technology.

An appropriate mastery of the knowledge, techniques, skills and modern tools of the appropriate ET program.

An ability to apply current knowledge and adapt to emerging applications of mathematics, science, engineering and technology.

An ability to conduct, analyze and interpret experiments and apply experimental results to improve processes.

An ability to apply creativity in the design of mechanical systems, mechanical components or manufacturing processes. An ability to function effectively on teams.

An ability to identify, analyze and solve technical problems in mechanical engineering and engineering technology. An ability to communicate effectively.

A recognition of the need for, and an ability to engage in lifelong learning. An ability to understand professional, ethical and social responsibilities.

A knowledge of and respect for diversity contemporary societal and global issues.

A commitment to quality, timeliness, and continuous improvement.

This program prepares graduates with knowledge, problem-solving ability, and hands-on skills to enter careers in installation, manufacturing, testing, evaluation, computer-aided design, or maintenance of basic mechanical systems. Graduates will be prepared for both immediate employment and continuation in the B.S. program.

To earn the A.S. with a major in mechanical engineering technology, you must fulfill the requirements of IPFW (see Part 8) and complete the following courses, earning a grade of C or better in those courses that serve as prerequisites.

technical expertise in engineering materials, applied mechanics, and applied fluid sciences.

technical expertise in manufacturing processes, mechanical design, and computer-aided engineering graphics with added technical depth in computer-aided engineering graphics.

expertise in applied physics having emphasis in applied mechanics plus fundamentals of electricity in physics.

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

All courses require a grade of C or better.

COM 11400 - Fundamentals of Speech Communication Cr. 3.

ENG W131 - Elementary Composition I Cr. 3.
MA 15900 - Precalculus Cr. 5.

Area II—Natural and Physical Sciences

All courses require a grade of C or better.

PHYS 21800 - General Physics Cr. 4.
PHYS 21900 - General Physics II Cr. 4.

Area III—The Individual, Culture, and Society

All courses require a grade of C or better.

IET 10500 - Industrial Management Cr. 3.

Area IV—Humanistic Thought Credits: 3

See Part 2 General Education Requirements for approved courses

Core and Concentration (Major) Courses

All courses require a grade of C or better.

ET 19000 - Statics Cr. 3.
ET 20000 - Strength of Materials Cr. 3.
ETCS 10100 - Introduction to Engineering, Technology, and Computer Science Cr. 1.
IET 20004 - Techniques of Maintaining Quality Cr. 3.
MET 10400 - Technical Graphics Communications Cr. 3.
MET 10600 - Analytical and Computational Tools in MET Cr. 2.
MET 18000 - Materials and Processes Cr. 3.
MET 21600 - Machine Elements Cr. 4.
MET 22300 - Introduction to Computer- Aided Modeling and Design Cr. 3.
MET 33000 - Introduction to Fluid Power Cr. 3.
MET 33500 - Basic Machining Cr. 3.

Additional Required Technical Courses

All courses require a grade of C or better.

ECET 11400 - Introduction to Visual Basic Cr. 3.
STAT 30100 - Elementary Statistical Methods I Cr. 3.

Required Support Courses

All courses require a grade of C or better.

ENG W234 - Technical Report Writing Cr. 3.

Total Credits: 63

Organizational Leadership and Supervision (A.S.)

Program: A.S.
Division of Organizational Leadership and Supervision
College of Engineering, Technology, and Computer Science

*Neff Hall 288 ~ 260-481-6420 ~ **www.ipfw.edu/ols***

The student-learning outcomes for the degree are as follows:

> Students will demonstrate an understanding of contemporary issues and theories in the areas of leadership, human resources systems, and team design and facilitation.
>
> Students will demonstrate an understanding of organizational behavior at the individual, group, and organizational levels of analysis using theories derived from several behavioral sciences.
>
> Students will show an awareness of the cultural context of organizations and demonstrate their ability to work with diverse others.
>
> Students will be able to apply theories to real organizational and leadership problems.
>
> Students will demonstrate effective oral and written communication skills.
>
> Students will be able to manage their environment by planning for and using current technology, tools, and processes.

This program helps you prepare for leadership positions or for advancement in a wide variety of organizations. The A.S. with a major in organizational leadership and supervision is of particular benefit to individuals who already possess technical skills and work experience and to students who complete the program along with a bachelor's degree in a technical or behavioral-science area.

To earn the A.S. with a major in organizational leadership and supervision, you must satisfy the requirements of IPFW (see Part 8) and the College of Engineering, Technology, and Computer Sciece, Division of Organizational Leadership and Supervision (see Part 4); earn a grade of C or better in ENG W131, ENG W233, and each OLS course; and complete the following requirements:

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
MA 15300 - Algebra and Trigonometry I Cr. 3.
   or
MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.

Area II—Natural and Physical Sciences Credits: 3

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society

PSY 12000 - Elementary Psychology Cr. 3.
SOC S161 - Principles of Sociology Cr. 3.

Area IV—Humanistic Thought Credits: 3

See Part 2 General Education Requirements for approved courses

OLS Core Classes

OLS 25200 - Human Relations in Organizations Cr. 3.
OLS 26800 - Elements of Law Cr. 3.
OLS 27400 - Applied Leadership Cr. 3.
OLS 37500 - Training Methods Cr. 3.
OLS 37600 - Human Resources Issues Cr. 3.

OLS Electives Credits: 6

See the OLS advisor for a list of approved OLS electives.

Technical Support Requirements

BUS A201 - Principles of Financial Accounting Cr. 3.
ECON E200 - Fundamentals of Economics Cr. 3.
ENG W233 - Intermediate Expository Writing Cr. 3.
OLS 28000 - Computer Applications for Supervisors Cr. 3.

Unrestricted Elective Courses Credits: 6

Total Credits: 63

Special Academic Regulations for Organizational Leadership and Supervision Degree Programs

Transfer students and students planning to change their major to organizational leadership and supervision must have a GPA of 2.00 or higher to be admitted into the program. A cumulative GPA of 2.0 or above is also required to remain in the division.

OLS, business, and technical courses taken more than 10 years ago will not count towards your degree requirements.

Students receiving credit for cooperative education experience can use these credits as unrestricted electives only.

If you have not registered for degree-applicable courses as an IPFW OLS major for four consecutive semesters (excluding summer), you must satisfy the degree requirements specified in the IPFW Bulletin that includes your year of re-entry.

Political Science Concentration (A.A.)

Program: Concentration A.A.
Department of Political Science
College of Arts and Sciences

Liberal Arts Building 209 ~ 260-481-6686 ~ www.ipfw.edu/pols

The student learning outcomes for the degree are as follows:

To have a basic knowledge of the discipline in political science.
To have basic analytical skills as well as the writing skills necessary to communicate ideas.
To be exposed to sufficient materials so that students can decide whether or not they want to pursue a BA
    degree in political science.

The college's Associate of Arts program serves as an intermediate step toward completion of a baccalaureate degree. The requirements encompass approximately the first half of the bachelor's degree program offered by the sponsoring department. See Part 5 for complete requirements for related bachelor's degree.

Requirements for the Associate of Arts

IPFW General Education Requirements

Area I - Linquistic and Numerical Foundations

COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
    with a grade of C or higher
MA 15300 - Algebra and Trigonometry I Cr. 3.
    Or
MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.

Area II-Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

One Science course with a scheduled laboratory required.

Area III-The Individual, Culture, and Society Credits: 6

Area IV—Humanistic Thought Credits: 6

Concentration Requirements

In addition to the courses listed below, you must complete MA 153 or MA 168 for your IPFW General Education course in Quantitative Reasoning. If you plan to continue for a bachelor's degree with a major in political science (see Part 5), you should take the second-year foreign-language courses as electives for the A.A.

POLS Y205 - Elements of Political Analysis Cr. 3.
POLS Y395 - Quantitative Political Analysis Cr. 3.
    Additional credits in political science Cr: 6
    Additional credits in political science, 200 level or above Cr: 6

Credits in the first year of a foreign language Credits: 8

Credits in a concentration with a grade of C or higher in each course (see below) Credits: 15-21

Additional credits in approved elective courses Credits: 4-12

Total credits with a graduation GPA of at least 2.00: 60-63

Psychology Concentration (A.A.)

Program: Concentration A.A.
Department of Psychology
College of Arts and Sciences

Neff Hall 388 ~ 260-481-6403 ~ www.ipfw.edu/psyc

The student learning outcomes for the degree are as follows:

Students will demonstrate basic knowledge in introductory, child, social, and abnormal psychology.
Students will demonstrate the ability to make a decision as to whether they wish to obtain a BA degree in psychology.

If you plan to continue for a bachelor's degree with a major in psychology (see Part 5), you should take the second-year foreign-language courses as electives for the A.A.

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations Credits: 9

COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
     with a grade of C- or higher
MA 15300 - Algebra and Trigonometry I Cr. 3.
     with a grade of C- or higher
     Or
MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
     with a grade of C- or higher
     Or
STAT 12500 - Communicating with Statistics Cr. 3.
     with a grade of C- or higher

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

One science course with a scheduled laboratory required.

Area III—The Individual, Culture, and Society Credits: 3

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Program Requirements

Additional credits in psychology, 200 level or above Credits: 3
PSY 12000 - Elementary Psychology Cr. 3.
PSY 20100 - Introduction to Statistics in Psychology Cr. 3.
PSY 31400 - Introduction to Learning Cr. 3.
PSY 32900 - Psychobiology II: Principles of Psychobiological Psychology Cr. 3.
PSY 41600 - Cognitive Psychology Cr. 3.

Two of the following Credits: 6

PSY 23500 - Child Psychology Cr. 3.
    Credit not given for both PSY 23500 and PSY 36900
PSY 24000 - Introduction to Social Psychology Cr. 3.
PSY 35000 - Abnormal Psychology Cr. 3.
PSY 36900 - Development Across the Lifespan Cr. 3.
    Credit not given for both PSY 23500 and PSY 36900
PSY 42000 - Introduction to Personality Theory Cr. 3.

Credits in the first year of a foreign language Credits: 8

Credits in a concentration with a grade of C- or higher in each course Credits: 24

Additional credits in approved elective courses Credits: 6-14

Total credits with a graduation GPA of at least 2.00: 62

Radiography (A.S.)

Program: A.S.R.
Student Success Center
College of Health and Human Services

Neff Hall 120 ~ 260-481-4187 ~ www.ipfw.edu/hhs/radiography/

 The student learning outcomes for the degree are as follows:

Demonstrate clinical procedural proficiency and radiation safety.
Demonstrate age specific radiographic patient care.
Evaluate the quality of radiographic images.
Demonstrate logical film sequence for non-routine situations.
Demonstrate effective interpersonal communication with patients and other healthcare staff.
Demonstrate effective written communication in patient records.
Demonstrate professional and ethical behaviors in clinical practice.

The Radiography, A.S. is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 N. Wacker Drive, Suite 2850, Chicago, IL 60606-3182; Phone: (312) 704-5300; Fax: (312) 704-5304; www.jrcert.org.

The Radiography program includes general education prerequisite courses and professional education. Students are designated as Pre-Radiography majors prior to admission into the professional program. Prerequisite courses may be completed under the advisement of the College of Health and Human Services. Professional education is a combination of classroom instruction and clinical experience. The clinical experience is conducted in the radiology departments of Parkview Hospital, Parkview North Hospital, Fort Wayne Orthopaedics and Carew Medical Park.

Admission Criteria:

Admission to the radiography professional program from Pre-Radiography status is limited and competitive. Completion of Pre-Radiography course work alone does not ensure admission. Admission is based on a total composite score of the following:

Pre-Radiography curriculum GPA
Estimate of Applicant Suitability forms
Preadmission testing
Personal interview

Pre-Radiography Curriculum:

Pre-Radiography curriculum course work and grades from all post-secondary institutions attended will be reviewed and evaluated. Pre-Radiography curriculum includes:

BIOL 20300
BIOL 20400
COM 11400 or COM 21200
ENG W131
ETCS 10600
MA 15300
PSY 12000

Application to the Program:

Application Requirements - Applicants seeking admission to the radiography program must meet the following requirements:

· Complete at least 7 credit hours of preradiography curriculum with a minimum 2.7 Pre-Radiography curriculum grade point average.

· Earn a grade of C- or better in each Pre-Radiography curriculum course.

· Complete BIOL 20300, BIOL 20400, and MA 15300 courses within 5 years of the desired start date of the professional program.

· Submit an application, official high school transcript, official college transcripts (one from each post-secondary institution attended) and applicant suitability forms, hand delivered or postmarked by March 1 for desired admission into the program beginning the following Summer Semester II to:

> College of Health and Human Services
> Radiography Program Director
> Neff Hall, Room 142
> 2101 E. Coliseum Boulevard
> Fort Wayne, IN 46805-1499.

Application Information - See the academic advisor for the radiography program for application materials:

> College of Health and Human Services
> Student Success Center
> Neff Hall, Room 120
> Phone: (260) 481-0145

Preadmission Test - Applicants meeting the application requirements will be scheduled for preadmission testing. Equivalents to preadmission testing requirements will be evaluated on an individual basis.

Personal Interview - Applicants meeting the application requirements and minimum preadmission testing score will be contacted to arrange a personal interview. A personal interview is required before a final selection is made.

Admission Policies:

Repeat Attempts – An applicant may make only two graded attempts at a prerequisite course. The most recent grade will be calculated in the applicant's Pre-Radiography curriculum GPA. The applicant's two attempts will include any graded attempt, whether or not eliminated from his or her cumulative GPA by grade replacement.

Fresh Start - For the purpose of selecting candidates to the radiography program, an applicant may petition to the program's admissions committee for a fresh start. A fresh start allows removal of a defined portion of the applicant's early academic history from calculation of admission grade point average. Please contact the Pre-Radiography Academic Advisor for more information about the Fresh Start policy.

Admission Requirements:

To be admitted into the professional program, an applicant must complete all Pre-Radiography curriculum course work by the end of spring semester with a grade of C- or better in each course and maintain a minimum 2.7 Pre-Radiography curriculum grade point average.

In addition, acceptance into the Radiography Program is contingent on an applicant's ability to meet the following requirements:

    Demonstrate meeting the College of Health and Human Services Technical Standards.
    Complete a Background Check to include Driving Record.
    Submit military discharge papers, if applicable.
    Pass a Drug Screening Test.
    Complete a Physical Examination and submit a Health Record with documentation of required immunizations.
    Submit proof of Professional Liability Insurance.
    Obtain an Indiana State Board of Health Radiology Permit.

* Upon acceptance into the Radiography Program, students will be provided with the forms and information necessary to complete the above listed additional requirements. Expenses incurred in meeting the above listed additional requirements are the responsibility of the applicant.

At IPFW you may complete the following courses: (23 credits)

BIOL 20300 - Human Anatomy and Physiology Cr. 4.
BIOL 20400 - Human Anatomy and Physiology Cr. 4.
ENG W131 - Elementary Composition I Cr. 3.
MA 15300 - Algebra and Trigonometry I Cr. 3.
PSY 12000 - Elementary Psychology Cr. 3.
ETCS 10600 - Introduction to Computers Cr. 3.

Choose one of the following:

COM 11400 - Fundamentals of Speech Communication Cr. 3.
COM 21200 - Approaches to the Study of Interpersonal Communication Cr. 3.

Professional Education Program: (60 credits)

AHLT R100 - Orientation to Radiologic Technology Cr. 2.
AHLT R101 - Radiographic Procedures I Cr. 3-4.
    IPFW course is 4 credit hours.
AHLT R102 - Principles of Radiography I Cr. 3.
AHLT R181 - Clinical Experience in Radiography Cr. 1-6.
    IPFW course is 5 credit hours.
AHLT R182 - Clinical Experience in Radiography Cr. 1-6.
    IPFW course is 5 credit hours.
AHLT R185 - Medical Terminology Cr. 1.
AHLT R200 - Pathology Cr. 2-3.
    IPFW course is 3 credit hours.
AHLT R201 - Radiographic Procedures II Cr. 3-4.
    IPFW course is 4 credit hours.
AHLT R202 - Principles of Radiography II Cr. 3.
AHLT R205 - Radiographic Procedures III Cr. 3-4.
    IPFW course is 4 credit hours.
AHLT R222 - Principles of Radiography III Cr. 3.
AHLT R250 - Physics Applied to Radiology Cr. 2-4.
    IPFW course is 2 credit hours.
AHLT R260 - Radiation Biology and Protection in Diagnostic Radiology Cr. 1-3.
    IPFW course is 2 credit hours.
AHLT R281 - Clinical Experience in Radiography Cr. 1-6.
    IPFW course is 6 credit hours.
AHLT R282 - Clinical Experience in Radiography Cr. 1-6.
    IPFW course is 5 credit hours.
AHLT R283 - Clinical Experience in Radiography Cr. 1-6.
    IPFW course is 5 credit hours.
AHLT R290 - Comprehensive Experience Cr. 1-8.
    IPFW course is 3 credit hours.

Total Credits: 83

Spanish Concentration (A.A.)

Program: Concentration A.A.
Department of International Language and Culture Studies
College of Arts and Sciences

Liberal Arts Building 267 ~ 260-481-6836 ~ www.ipfw.edu/ilcs/

The student learning outcomes for the degree are as follows:

Acquire a basic foundation in language skills and a solid basis for further study in the language.
Demonstrate the ability to examine stereotypes and to respond in culturally appropriate ways in everyday situations in the target culture.
Develop an increased understanding of what it means to belong to a culture and awareness of how culture affects other interconnected issues of identity.

The college's Associate of Arts program serves as an intermediate step toward completion of a baccalaureate degree. The requirements encompass approximately the first half of the bachelor's degree program offered by the sponsoring department. See Part 5 for complete requirements for related bachelor's degree.

Requirements for the Associate of Arts

IPFW General Education Requirements

Area I - Linquistic and Numerical Foundations

COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
    with a grade of C or higher
    Quantitative Reasoning course, with a grade of C or higher:
MA 15300 - Algebra and Trigonometry I Cr. 3.
    Or
MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
    Or
STAT 12500 - Communicating with Statistics Cr. 3.

Area II-Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

One science course with a scheduled laboratory required.

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Recommended as a selection:
ANTH L200 - Language and Culture Cr. 3.
LING L103 - Introduction to the Study of Language Cr. 3.

Area IV—Humanistic Thought Credits: 6

Concentration Requirements

If you plan to continue for a bachelor's degree with a major in Spanish, see Part 5 for B.A. requirements.

SPAN S203 - Second-Year Spanish I Cr. 3.
SPAN S204 - Second-Year Spanish II Cr. 3.
SPAN S275 - Hispanic Culture and Conversation Cr. 3.
SPAN S317 - Spanish Conversation and Diction Cr. 3.

One of the following Credits: 3

SPAN S311 - Spanish Grammar Cr. 3.
SPAN S312 - Written Composition in Spanish Cr. 3.

One of the following Credits: 3

SPAN S301 - The Hispanic World I Cr. 3.
SPAN S302 - The Hispanic World II Cr. 3.

Credits in the first year of a foreign language Credits: 8

Additional credits in approved elective courses Credits: 4-12

Total credits with a graduation GPA of at least 2.00: 60-63

Women's Studies Concentration (A.A.)

Program: Concentration A.A.
College of Arts and Sciences

Liberal Arts Building 35F ~ 260-481-6711 ~ www.ipfw.edu/wost

The student learning outcomes for the degree are as follows:

Demonstrate basic understanding of major issues in feminism.
Demonstrate basic awareness of ways in which feminist scholarship has affected the subject matter of at least two arts and Sciences disciplines.
Have the education tools for pursuing the bachelor of arts in Women's Studies.

Women's studies is based on the premise that the study of women's experiences, concerns, social roles, and creativity is essential to our knowledge of humankind and society. Feminist scholarship and theory provide the knowledge and analytical tools necessary for a gender-balanced perspective on our world, both past and present. The Women's Studies

Program affords you the opportunity to pursue feminist scholarship on women and gender through a variety of interdisciplinary courses.

If you plan to continue for a bachelor's degree with a major in women's studies (see Part 5), you should take the second-year foreign-language courses as electives for the A.A.

IPFW General Education Requirements

Area I - Linquistic and Numerical Foundations

COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
    with a grade of C or higher
    Quantitative Reasoning course, with a grade of C or higher
MA 15300 - Algebra and Trigonometry I Cr. 3.
    Or
MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
    Or
STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

One science course with a scheduled laboratory required

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Program Requirements

Credits in WOST or cross-listed humanities/visual arts Credits: 3

Credits in WOST or cross-listed social science/science Credits: 3

Additional credits in WOST or cross-listed courses Credits: 6
WOST W210 - Introduction to Women's Studies Cr. 3.

Credits in the first year of a foreign language Credits: 8

Credits in a concentration with a grade of C or higher in each course (see below) Credits: 15-21

Additional credits in approved elective courses Credits: 4-12

Total credits with a graduation GPA of at least 2.00: 60-63

Baccalaureate

These programs are offered by Indiana University.

Anthropology (B.A.)

Program: B.A
Department of Anthropology
College of Arts and Sciences

Kettler Hall G11A ~ 260-481-6272 ~ www.ipfw.edu/anthropology

The student learning outcomes for the degree are as follows:

  Achieve familiarity with different cultures in at least two regions of the world
  Know the major anthropological approaches to understanding the human condition
  Be able to explain societies in a holistic manner
  Achieve competency in writing
  Demonstrate critical thinking
  Acquire quantitative skills for analysis
  Demonstrate a willingness to engage learning and scholarship as a life-long endeavor

Courses in anthropology provide an understanding of the nature of cultures and help you assess various explanations of human behavior; they also assist in the development of analytical and critical abilities. The curriculum is structured to include studies in the history and theory of anthropology, in four anthropological fields (ethnology, archeology, bioanthropology, and linguistics), in at least two different world ethnographic areas, and in topical specializations. The program helps you prepare for graduate study, for teaching, and for careers in which the understanding of various cultures is an asset.

Although a minor is not required for the B.A. with a major in anthropology, an outside concentration is recommended. Fifteen credits in history, political science, psychology, or sociology support the concentration.

To earn the B.A. with a major in anthropology, you must fulfill the requirements of IPFW (see Part 8) and the College of Arts and Sciences (see Part 4), and satisfactorily complete the following requirements:

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

  COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of the following:

  ENG W131 - Elementary Composition I Cr. 3.
  ENG W140 - Elementary Composition Honors Cr. 3.

One of the following:

MA 15300 - Algebra and Trigonometry I Cr. 3.
MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences

See Part 2 General Education Requirements for approved courses

Additional credits in Area II: 3
ANTH B200 - Bioanthropology Cr. 3.

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (not in ANTH) Credits: 3

See Part 2 General Education Requirements for approved courses

College of Arts and Sciences Requirements

English Writing

ENG W233 - Intermediate Expository Writing Cr. 3.
   (or other approved writing course)

Foreign Language

Requirements in Arts and Sciences Part B Credits: 14

Distribution

Requirements in Arts and Sciences Part C Credits: 9

Cultural Studies

Requirements in Arts and Sciences Part D Credits: 6

Core and Concentration (Major) Courses

Additional credits in anthropology courses, including two courses selected from Group A courses and two courses selected from Group B courses, below Credits: 15

ANTH B200 - Bioanthropology Cr. 3.
ANTH E105 - Culture and Society Cr. 3.
ANTH H445 - History and Theory of Anthropology Cr. 3.
ANTH L200 - Language and Culture Cr. 3.
ANTH P200 - Introduction to Prehistoric Archaeology Cr. 3.

Group A Regional Ethnography

ANTH E301 - Plain People of Indiana Cr. 3.
ANTH E310 - Introduction to the Cultures of Africa Cr. 3.
ANTH E320 - Indians of North America Cr. 3.
ANTH E321 - Peoples of Mexico Cr. 3.
ANTH E330 - Indians of South America Cr. 3.
ANTH E335 - Ancient Civilizations of Mesoamerica Cr. 3.
ANTH E341 - Culture of China Cr. 3.
ANTH E350 - European Ethnography Cr. 3.
ANTH E356 - Cultures of the Pacific Cr. 3.
ANTH E398 - Peoples and Cultures of Central Asia Cr. 3.
ANTH E479 - Indian Cultures of Peru Cr. 3.

Group B Topics in Anthropology

ANTH A495 - Individual Readings in Anthropology Cr. 1-4.
ANTH A496 - Field Study in Anthropology Cr. 3-8.
ANTH B426 - Human Osteology Cr. 3.
ANTH E102 - Anthropology of America Cr. 3.
ANTH E375 - Cultural Psychiatry Cr. 3.
ANTH E400 - Undergraduate Seminar Cr. 3.
ANTH E401 - Ecology and Culture Cr. 3.
ANTH E402 - Gender in Cross-Cultural Perspective Cr. 3.
ANTH E405 - Principles of Social Organization Cr. 3.
ANTH E406 - Anthropology and Documentary Films Cr. 3.
ANTH E420 - Economic Anthropology Cr. 3.
ANTH E421 - The Anthropology of Aging Cr. 3.
ANTH E445 - Medical Anthropology Cr. 3.
ANTH E455 - Anthropology of Religion Cr. 3.
ANTH E462 - Anthropological Folklore Cr. 3.
ANTH E470 - Psychological Anthropology Cr. 3.
ANTH P220 - Rise and Fall of Ancient Civilizations Cr. 3.
ANTH P300 - Topics in Prehistory Cr. 3.
ANTH P360 - Archaeology of North America Cr. 3.
ANTH P361 - Prehistory of Eastern North America Cr. 3.
ANTH P370 - Ancient Cultures of South America Cr. 3.
ANTH P376 - Archaeology of Death Cr. 3.
ANTH P382 - Archaeological Research Design Cr. 3.
ANTH P399 - Undergraduate Seminar Cr. 3.

ANTH P400 - Archaeological Methods and Techniques Cr. 2-4.
ANTH P405 - Fieldwork in Archaeology Cr. 1-8.
LING L103 - Introduction to the Study of Language Cr. 3.
LING L360 - Language in Society Cr. 3.

General Elective Courses

Sufficient additional credits to bring the total to 124.

Total Credits: 124

Art Education (B.A.)

Program: B.A. Art Education(All-Grade Education Program)
Department of Fine Arts
College of Visual and Performing Arts

Visual Arts Building 117 ~ 260-481-6705 ~ www.ipfw.edu/vpa/

The student learning outcomes for the degree are as follows:

The Bachelor of Art in Art Education degree prepares the student to teach elementary, middle school, and junior high/senior high art.

The Bachelor of Arts in Art Education program at IPFW promotes and cultivates the role of artist/teacher as the ideal educator of the arts in schools today. With a solid background in studio arts, student teachers use their experience as artists to develop a philosophy that aims to create authentic art making conditions in their future positions as art educators. Art educators learn to advocate for the arts and are given learning opportunities both in school and museum contexts as they grow to share learning and understanding of visual arts education.

The Bachelor of Art in Art Education degree is divided into three parts; 36 credit hours of General Education, 54 credit hours of art history and art studio courses, and 38 credit hours of Professional Education classes. A 3.00 GPA in the Content Field (art history and art studio) and a 2.5 cumulative GPA is required for this degree. A cumulative GPA of 2.5 from coursework taken from previous institutions or in IPFW Professional Education classes needs to be recorded. In addition each Area of General Education must maintain a 2.0 GPA. A total of 128 credits is required for graduation.

Components:	Credits
I. General Education	**36**
II. Content Field	**54**
III. Professional Education	**38**
Total	**128**

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

COM 11400 - Fundamentals of Speech Communication Cr. 3.
    (grade of B or higher)
ENG W131 - Elementary Composition I Cr. 3.
    (grade of B or higher)
ENG W233 - Intermediate Expository Writing Cr. 3.

One of the Following Credits: 3

MA 15300 - Algebra and Trigonometry I Cr. 3.
MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences

One class in: Astronomy, Chemistry, Geology, Physics, or Bioanthropology Credits: 3.

BIOL 10000 - Introduction to the Biological World Cr. 3.
    or
BIOL 25000 - Women and Biology Cr. 3.

Area III—The Individual, Culture, and Society

One of the following Credits: 3

PSY 12000 - Elementary Psychology Cr. 3.
SOC S161 - Principles of Sociology Cr. 3.

One of the following Credits: 3

ANTH E105 - Culture and Society Cr. 3.
ANTH L200 - Language and Culture Cr. 3.
COM 30300 - Intercultural Communication Cr. 3.
ENG L364 - Native American Literature Cr. 3.

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

FINA courses can not be used.

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

VCD or FINA courses can not be used.

Area VI—Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses

Class must be attained at IPFW.

College of Visual and Performing Arts Requirements Credits: 54

II. Content Area

Art History Requirements Credits: 6

FINA H111 and H112 should be taken just prior to Praxis II testing (see Professional Teaching Requirements).
> FINA H111 - Ancient and Medieval Art Cr. 3.
> FINA H112 - Renaissance Through Modern Art Cr. 3.

100 Level Foundations Requirements Credits: 12

> FINA P121 - Drawing Fundamentals I-II Cr. 3.
> FINA P122 - Drawing Fundamentals I-II Cr. 3.
>   (P121 is a prerequisite to P122)
> FINA P151 - Design Fundamentals I-II Cr. 3.
> FINA P152 - Design Fundamentals I-II Cr. 3.

100 Level Foundation Portfolio Review Checkkpoint

Students in all of the Department of Fine Arts programs will submit a portfolio of 100 level Foundation studio work to be reviewed by Department of Fine Arts faculty. The review is a checkpoint to assure that students have met adequate quality standards in the Foundation program. The portfolio will consist of 12-15 works, with at least two works from each 100 level Foundation course. Upon a satisfactory portfolio review, students will continue in 200 level Fundamentals studio classes. Some students may be asked to re-take particular Foundation classes to attain department standards.

200 Level Studio Requirements Credits: 21

> 200 Level courses do not have to be taken in this order.
> FINA P223 - Figure Drawing I Cr. 3.
> FINA P225 - Painting Fundamentals I Cr. 3.
> FINA P231 - Sculpture Fundamentals Cr. 3.
> FINA P233 - Metalsmithing Fundamentals Cr. 3.
> FINA P235 - Ceramics Fundamentals Cr. 3.
> FINA P241 - Printmaking Fundamentals Cr. 3.
> VCD P273 - Computer Art and Design I Cr. 3.

B.A. in Art Education Portfolio Review

Each student must submit a portfolio of 200 level work to attain formal acceptance into the B.A. in Art Education program. The portfolio review must be passed and recorded before students will be allowed to enter the Block 1 Teacher Education block of classes. Students presenting a portfolio for acceptance into the B.A. in Art Education program can declare an area of studio concentration, i.e. painting, sculpture, or can decide to take a variety of advanced studio classes. The portfolio should consist of 15-20

works, with at least two works from each 200 level Fundamentals course. It is highly recommended that students seek faculty advice on which works to submit for review. Faculty evaluations will be based on a student's strong knowledge and skills in:

    showing competence in representational drawing of volume, pictorial space, and the depiction of the human figure. An
        understanding of linear perspective should be evident.
    the ability to compose aesthetic element of line, tone/value, shape, texture, color, and 3D form in space.
    demonstrating technical and aesthetic excellence (for the 60 credit level) in your chosen major; i.e. drawing, ceramics,
        metalsmithing, painting, printmaking, or sculpture.
    (for 2D majors) drawing, painting, printmaking as well as the demonstration of competence and serious investigation in 3D
        media.
    (for 3D majors) ceramics, metalsmithing, and sculpture with competence and serious investigation in 2D media.

B.A. in Art Education Portfolio Review Outcome

A student applying for acceptance in the B.A. in Art Education program may be accepted, deferred, or denied. A student's acceptance into the B.A. in Art Education will allow them to advance into 300 level studio classes as a B.A in Art Education major. A deferred student will be asked to re-submit their portfolio for consideration after re-taking requested classes. A student denied entry into the B.A. in Art Education program may wish to consider the B.A. program or apply once again for entry into the B.A. in Art Education program with permission from the department.

Advanced Studio Courses Credits: 15

300/400 Studio
    Five (5) advanced 300/400 studio courses need to be fulfilled in this area.
    300 level classes must be taken prior to 400 level classes
    Two (2) Department of Visual Communications and Design (VCD) courses can be taken in this
        area.

Professional Education Requirements Credits: 38

Initial Requirement Block Credits: 4

Block should be completed within the sophomore year.

    EDUA F300 - Topical Exploration in Education Cr. 1-3.
        Credits: 2
        Education Portfolio Checkpoint
    EDUC K201 - Schools, Society, and Exceptionality Cr. 1-3.
        Credits: 1
    EDUC M101 - Laboratory/Field Experience Cr. 0-3.
        Credits: 0 (field experience required)
    EDUC W200 - Using Computers for Education Cr. 1.
        Admission to the TEP is required for remaining courses.

PPST Testing

PPST (Pre-Professional Skills Test)

Test results must be turned into Department of Fine Arts secretary prior to registering for Block 1 Teacher Education classes. Initial Requirement Block and all areas of the PPST must be completed, passed, and recorded prior to registration into Block 1 Teacher Education.   The Department of Fine Arts 200 Level Portfolio Review must also be passed before entering Teacher Education Block 1. The IPFW School of Education has information about PPST study guides and testing schedules.

Block 1: Teacher Education Requirements Credits: 12

Block 1 must be completed before entering Block 2.

    EDUC H340 - Education and American Culture Cr. 2-3.
        Credits: 3
    EDUC K206 - Teaching Methods for Students with Special Needs Cr. 1-3.
        Credits: 3
    EDUC M330 - Foundations of Art Education and Methods I Cr. 3
        (Methods I must be taken before Methods II) (requires field experience)
    EDUC P250 - General Educational Psychology Cr. 1-4.
        Credits: 3 (requires field experience)
        Education Portfolio Checkpoint

Block 2: Professional Education Credits: 9

    EDUC M430 - Foundations of Art Education and Methods II Cr. 3
        (field experience required)
        Education Portfolio Checkpoint
    EDUC P254 - Educational Psychology for Teachers of All Grades Cr. 1-4.
        Credits: 3 (field experience required)
    EDUC X401 - Critical Reading in the Content Area Cr. 1-3.
        Credits: 3

Praxis II (Art Education Exam)

Praxis II must be passed and recorded prior to applying for a teaching license.   Art History H111 and H112 (see above) should be taken just prior to Praxis II testing.

Student Teaching Credits: 13

    10 week plus 6 week combination.
    Student must complete an application for student teaching **one year** before intended student teaching semester.

    EDUC M482 - Student Teaching: All Grades Cr. 1-16.
        Credits: 13
    EDUC M501 - Lab/Field Experience Cr. 0-3.
        Final Education Portfolio Checkpoint

Recommendations, Requirements, Transfers, and Policies

Recommendations Students should schedule classes within the B.A. program under the guidance of the official departmental advisor.

Residence Requirements For a bachelor's degree, registration in and completion of at least 33 credits of resident course credit at the 200 level or above, including at least 15 credits at the 300 level or above, in courses applicable to the major.

Transfer and Returning Student Credit All studio and art history courses transferred from another institution or former IPFW art programs must be evaluated by appropriate faculty in the Department of Fine Arts program before they may be applied to a major in Fine Arts. See Transfer and Returning Student Credit Review.

Transfer and Returning Student Credit Review Courses in studio art that have been transferred to IPFW from another institution or former IPFW art programs are not counted as part of the Fine Arts major unless they have been reviewed by the Fine Arts faculty. For a review of transferred studio credit, the student should provide the viewer with a portfolio consisting of representative work in each area (e.g. painting, sculpture, etc.) for which the transfer credit is desired. The portfolio should include both studies and finished work and be as encompassing as possible.

Biology (B.S.)

Program: B.S.
Department of Biology
College of Arts and Sciences

Science Building 330 ~ 260-481-6305 ~ www.ipfw.edu/bio

The student learning outcomes for the degree are as follows:

Provide coursework, research experience, and advising for students who seek employment after the B.S. degree or who expect to enter graduate and professional schools.

- Students should have demonstrated comprehension of basic biological principles and theories and a demonstrated ability to apply those theories and principles to problem solving.
- Students should have demonstrated knowledge of the scientific method, and should be able to apply that knowledge to problem solving. Students should also have the ability to critically evaluate biological information.
- Students should have demonstrated the basic knowledge and experience of field and laboratory work and be able to communicate the results of an investigation.

Special Regulation for Biology Majors

Time Limit - All biology courses applied toward graduation must be completed within 10 years from the time the first biology course was completed.

To earn a B.S. with a major in biology, you must fulfill the requirements of IPFW and of the College of Arts and Sciences (see Part 4 and Part 8); earn a GPA of 2.30 or higher in BIOL 117, 119, 217, 218, 219, and 491 and in A/B-elective courses in biology (listed below); and complete the following courses:

Area I—Linguistic and Numerical Foundations

COM 11400 - Fundamentals of Speech Communication Cr. 3.

MA 15300 - Algebra and Trigonometry I Cr. 3.

One of the following Credits: 3

ENG W131 - Elementary Composition I Cr. 3.
    Or
ENG W140 - Elementary Composition Honors Cr. 3.

Area II—Natural and Physical Sciences

BIOL 11700 - Principles of Ecology and Evolution Cr. 4.
   (credits included in Biology Core, below)
CHM 11500 - General Chemistry Cr. 4.
   (credits included in Supporting Courses, below)

Area III—The Individual, Culture, and Society (Credits: 6)

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought (Credits: 6)

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression (Credits: 3)

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis

(credits included in Supporting Courses, below)

CHM 22400 - Introductory Quantitative Analysis Cr. 4.
CHM 32100 - Analytical Chemistry I Cr. 4.

College of Arts and Sciences Requirements

English Writing

ENG W233 - Intermediate Expository Writing Cr. 3.

Foreign Language

Requirements in Arts and Sciences Part B Credits: 8

Core and Concentration (Major) Courses

BIOL 11700 - Principles of Ecology and Evolution Cr. 4.
BIOL 11900 - Principles of Structure and Function Cr. 4.
BIOL 21700 - Intermediate Ecology Cr. 3.
BIOL 21800 - Genetics and Molecular Biology Cr. 4.
BIOL 21900 - Principles of Functional Biology Cr. 4.
BIOL 49100 - Senior Biology Seminar Cr. 1.

Supporting Courses

CHM 11500 - General Chemistry Cr. 4.
CHM 11600 - General Chemistry Cr. 4.
CHM 22400 - Introductory Quantitative Analysis Cr. 4.
ETCS 10600 - Introduction to Computers Cr. 3.

One of the following sequences Credits: 8

CHM 25400 - Organic Chemistry Laboratory Cr. 1.
CHM 25500 - Organic Chemistry Cr. 3.
   and
CHM 25600 - Organic Chemistry Cr. 3.
CHM 25800 - Organic Chemistry Laboratory Cr. 1.

Or Select:

CHM 25400 - Organic Chemistry Laboratory Cr. 1.
   and
CHM 26100 - Organic Chemistry Cr. 3.

And

CHM 25800 - Organic Chemistry Laboratory Cr. 1.
   and
CHM 26200 - Organic Chemistry Cr. 3.

Calculus and Statistics

The following calculus and statistics course pattern is typical. Course substitutions are possible with advisor approval. Please note that most graduate programs require a full year of calculus.

MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.
STAT 24000 - Statistical Methods for Biology Cr. 3.
STAT 34000 - Elementary Statistical Methods II Cr. 3.

One of the following sequences Credits: 8–10

PHYS 20100 - General Physics I Cr. 5.
   and
PHYS 20200 - General Physics II Cr. 5.
   or
PHYS 22000 - General Physics Cr. 4.
   and
PHYS 22100 - General Physics Cr. 4.

General Elective Courses (Credits: 16)

In the interest of broadly training our majors, students are required to take at least one course *with laboratory* from each of the A and B elective course lists below. The A elective courses focus on topics regarding the intact organism and its interaction with the environment, and so are organismal, population, community, and ecosystem in nature. The

B elective courses focus on processes acting within the organism, and thus detail molecular, cellular, and organ-system mechanisms.

A-Electives

(organismal, population, community, and ecosystem)

BIOL 33500 - Animal Behavior Cr. 3.
    separate laboratory available (BIOL 336)
BIOL 33600 - Animal Behavior Lab Cr. 1.
BIOL 34500 - Vertebrate Biology Cr. 4.
    includes laboratory
BIOL 43400 - Marine Community Ecology Cr. 3.
    includes laboratory
BIOL 44500 - Aquatic Biology Cr. 3.
    includes laboratory
BIOL 50100 - Field Botany Cr. 4.
    includes laboratory
BIOL 50200 - Conservation Biology Cr. 3.
BIOL 50500 - Biology of Invertebrate Animals Cr. 3.
    includes laboratory
BIOL 52000 - Contemporary Parasitology Cr. 3.
BIOL 54300 - Population Ecology Cr. 4.
    includes laboratory
BIOL 55600 - Physiology I Cr. 3.
    separate laboratory available (BIOL 55800)
BIOL 55800 - Laboratory in Physiology Cr. 2.
BIOL 57900 - Fate of Chemicals in the Environment Cr. 4.
    includes laboratory
BIOL 58000 - Evolution Cr. 3.
BIOL 58200 - Ecotoxicology Cr. 3.
BIOL 58600 - Topics in Behavior and Ecology Cr. 3.
BIOL 59200 - The Evolution of Behavior Cr. 3.
BIOL 59800 - Biology of Fish Cr. 4.
    includes laboratory
ENTM 20600 - General Applied Entomology Cr. 2.
    separate laboratory available (ENTM 207)
ENTM 20700 - General Applied Entomology Laboratory Cr. 1.
FNR 50500 - Molecular Ecology and Evolution Cr. 3.
FNR 52300 - Aquaculture Cr. 3.

B-Electives

(molecular, cellular, and organ-system)

BIOL 21500 - Basic Human Anatomy Cr. 4.
    includes laboratory
BIOL 31500 - Developmental Anatomy Cr. 4.
    includes laboratory
BIOL 35000 - Plant Physiology Cr. 4.
    includes laboratory
BIOL 38100 - Cell Biology Cr. 3.
    separate laboratory available (BIOL 382)

BIOL 38200 - Laboratory in Cell Biology Cr. 1.
BIOL 43700 - General Microbiology Cr. 4.
    includes laboratory
BIOL 50600 - Human Molecular Genetics Cr. 3.
BIOL 50900 - Molecular Biology and Applications Cr. 3.
    separate laboratory available (BIOL 584)
BIOL 51500 - Molecular Genetics Cr. 3.
BIOL 51600 - Molecular Biology of Cancer Cr. 3.
BIOL 53300 - Medical Microbiology Cr. 3.
BIOL 53700 - Immunobiology Cr. 3.
BIOL 54000 - Biotechnology Cr. 3.
BIOL 54400 - Principles of Virology Cr. 3.
BIOL 55900 - Endocrinology Cr. 3.
BIOL 56500 - Immunobiology Lab Cr. 1.
BIOL 56600 - Developmental Biology Cr. 3.
    separate laboratory available (BIOL 567)
BIOL 56700 - Laboratory in Developmental Biology Cr. 1.
BIOL 58400 - Molecular Biology and Applications Laboratory Cr. 1.

Free Electives

Sufficient additional credits to bring the total to 124.

Total Credits: 124

Honors in Biology

You may earn an honors degree in biology by achieving an overall GPA of 3.00 or higher and a biology GPA of 3.50 or higher, conducting a two-semester (minimum of 5 credits) research project, preparing a senior thesis based on the research project, and giving an oral presentation of the thesis research. The senior thesis committee must be established one semester before graduation.

Biology with Life Science Teaching Certification (B.S.)

Program: B.S.
Department of Biology
College of Arts and Sciences

Science Building 330 ~ 260-481-6305 ~ www.ipfw.edu/bio

The student learning outcomes for the degree are as follows:

Learning Goals

Provide coursework, research experience, and advising for students who seek employment after the B.S. degree or who expect to enter graduate and professional schools.

Learning Outcomes

Students should have demonstrated comprehension of basic biological principles and theories and a demonstrated ability to apply those theories and principles to problem solving.

Students should have demonstrated knowledge of the scientific method, and should be able to apply that knowledge to problem solving. Students should also have the ability to critically evaluate biological information.

Students should have demonstrated the basic knowledge and experience of field and laboratory work and be able to communicate the results of an investigation.

The study of biology is an excellent way to prepare for a career in teaching because it provides the student with a solid foundation in science as well as in teaching. Students who plan to earn a B.S. with a major in biology with life science teaching certification should consult regularly with the coordinator of advising of the School of Education.

To earn a B.S. with a major in biology with life science teaching certification, you must fulfill the requirements specified by the IPFW School of Education and fulfill the requirements of IPFW and of the College of Arts and Sciences with the exception of the foreign language requirement (see Part 4 and Part 8).

The School of Education requires that you first complete EDUA F300, EDUC W200/M101, and EDUC K201 before you are permitted to take professional education courses. Prior to your junior year, you must successfully complete the Pre-Professional Skills Test (PPST) before admission to the teacher education program. The PRAXIS II Specialty Area Exam must be completed before or during the student-teaching semester, normally in your senior year.

To be eligible to apply for teacher licensure, you must earn a GPA of 2.00 or higher in each general education area. You should work closely with your advisor to ensure completion of general education requirements for teacher licensing. You must also earn a cumulative GPA of 2.50 or higher in your major area and the professional education courses with an overall GPA of 2.5 or higher. Each professional education course must be completed with a grade of C or better.

Students who qualify may elect to do an independent project supervised by a faculty member. Credits earned in these courses (BIOL 295 or BIOL 595) cannot be used to satisfy A/B-elective requirements.

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

MA - Mathematics course approved for IPFW Genderal Education Area I
COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of the following Credits: 3

ENG W131 - Elementary Composition I Cr. 3.
    or
ENG W140 - Elementary Composition Honors Cr. 3.

Area II—Natural and Physical Sciences

BIOL 11700 - Principles of Ecology and Evolution Cr. 4.
CHM 11500 - General Chemistry Cr. 4.

Area III—The Individual, Culture, and Society (Credits: 6)

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought (Credits: 6)

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression (Credits: 3)

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis

One of the following Credits: 0

(credits included in Supporting Courses, below)

> CHM 22400 - Introductory Quantitative Analysis Cr. 4.
> CHM 32100 - Analytical Chemistry I Cr. 4.

School of Arts and Sciences Requirements

English Writing

> ENG W233 - Intermediate Expository Writing Cr. 3.

Core and Concentration (Major) Courses

> BIOL 11700 - Principles of Ecology and Evolution Cr. 4.
> BIOL 11900 - Principles of Structure and Function Cr. 4.
> BIOL 21700 - Intermediate Ecology Cr. 3.
> BIOL 21800 - Genetics and Molecular Biology Cr. 4.
> BIOL 21900 - Principles of Functional Biology Cr. 4.
> BIOL 49100 - Senior Biology Seminar Cr. 1.

Supporting Courses (40–42 credits)

> CHM 11500 - General Chemistry Cr. 4.
> CHM 11600 - General Chemistry Cr. 4.
> CHM 25400 - Organic Chemistry Laboratory Cr. 1.
> CHM 25500 - Organic Chemistry Cr. 3.
> CHM 25600 - Organic Chemistry Cr. 3.
> CHM 25800 - Organic Chemistry Laboratory Cr. 1.
> ETCS 10600 - Introduction to Computers Cr. 3.
> MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.
> STAT 24000 - Statistical Methods for Biology Cr. 3.
> STAT 34000 - Elementary Statistical Methods II Cr. 3.

One of the following Credits: 4

CHM 22400 - Introductory Quantitative Analysis Cr. 4.
    or
CHM 32100 - Analytical Chemistry I Cr. 4.

One of the following sequences Credits: 8–10

PHYS 20100 - General Physics I Cr. 5.
PHYS 20200 - General Physics II Cr. 5.
    or
PHYS 22000 - General Physics Cr. 4.
PHYS 22100 - General Physics Cr. 4.

General Elective Courses (Credits: 10–12)

You must complete at least one course with a laboratory in each group.

A-Electives

(organismal, population, community, and ecosystem)

BIOL 33500 - Animal Behavior Cr. 3.
    separate laboratory available (BIOL 336)
BIOL 33600 - Animal Behavior Lab Cr. 1.
BIOL 34500 - Vertebrate Biology Cr. 4.
    includes laboratory
BIOL 43400 - Marine Community Ecology Cr. 3.
    includes laboratory
BIOL 44500 - Aquatic Biology Cr. 3.
    includes laboratory
BIOL 50100 - Field Botany Cr. 4.
    includes laboratory
BIOL 50200 - Conservation Biology Cr. 3.
BIOL 50500 - Biology of Invertebrate Animals Cr. 3.
    includes laboratory
BIOL 52000 - Contemporary Parasitology Cr. 3.
BIOL 54300 - Population Ecology Cr. 4.
    includes laboratory
BIOL 55600 - Physiology I Cr. 3.
    separate laboratory available (BIOL 558)
BIOL 55800 - Laboratory in Physiology Cr. 2.
BIOL 57900 - Fate of Chemicals in the Environment Cr. 4.
    includes laboratory
BIOL 58000 - Evolution Cr. 3.
BIOL 58200 - Ecotoxicology Cr. 3.
BIOL 58600 - Topics in Behavior and Ecology Cr. 3.
BIOL 59200 - The Evolution of Behavior Cr. 3.
BIOL 59800 - Biology of Fish Cr. 4.
    includes laboratory
ENTM 20600 - General Applied Entomology Cr. 2.
    separate laboratory available (ENTM 207)
ENTM 20700 - General Applied Entomology Laboratory Cr. 1.
FNR 50500 - Molecular Ecology and Evolution Cr. 3.

FNR 52300 - Aquaculture Cr. 3.

B-Electives

(molecular, cellular, and organ-system)

BIOL 21500 - Basic Human Anatomy Cr. 4.
  includes laboratory
BIOL 31500 - Developmental Anatomy Cr. 4.
  includes laboratory
BIOL 35000 - Plant Physiology Cr. 4.
  includes laboratory
BIOL 38100 - Cell Biology Cr. 3.
  separate laboratory available (BIOL 382)
BIOL 38200 - Laboratory in Cell Biology Cr. 1.
BIOL 43700 - General Microbiology Cr. 4.
  includes laboratory
BIOL 50600 - Human Molecular Genetics Cr. 3.
BIOL 50900 - Molecular Biology and Applications Cr. 3.
  separate laboratory available (BIOL 584)
BIOL 51500 - Molecular Genetics Cr. 3.
BIOL 51600 - Molecular Biology of Cancer Cr. 3.
BIOL 53300 - Medical Microbiology Cr. 3.
BIOL 53700 - Immunobiology Cr. 3.
  separate laboratory available (BIOL 565)
BIOL 54000 - Biotechnology Cr. 3.
BIOL 54400 - Principles of Virology Cr. 3.
BIOL 55900 - Endocrinology Cr. 3.
BIOL 56500 - Immunobiology Lab Cr. 1.
BIOL 56600 - Developmental Biology Cr. 3.
  separate laboratory available (BIOL 567)
BIOL 56700 - Laboratory in Developmental Biology Cr. 1.
BIOL 58400 - Molecular Biology and Applications Laboratory Cr. 1.

School of Education Requirements (Credits: 37-41)

Prior to being admitted to the teacher education program, you must complete the Initial Requirement courses and pass the PPST.

Initial Requirements

EDUA F300 - Topical Exploration in Education Cr. 1-3.
EDUC K201 - Schools, Society, and Exceptionality Cr. 1-3.
EDUC M101 - Laboratory/Field Experience Cr. 0-3.
EDUC W200 - Using Computers for Education Cr. 1.

Block I

EDUC H340 - Education and American Culture Cr. 2-3.
EDUC K206 - Teaching Methods for Students with Special Needs Cr. 1-3.
EDUC M201 - Laboratory/Field Experience Cr. 0-3.

EDUC P250 - General Educational Psychology Cr. 1-4.

Block II

EDUC M449 - Methods of Teaching Science in the Secondary Schools Cr. 3.
EDUC P253 - Educational Psychology for Secondary Teachers Cr. 1-4.
EDUC Q400 - Man and Environment: Instructional Methods Cr. 3.
EDUC X401 - Critical Reading in the Content Area Cr. 1-3.
EDUC M301 - Laboratory/Field Experience Cr. 0-3.
EDUC M401 - Laboratory/Field Experience Cr.0-3.

Student Teaching

EDUC M480 - Student Teaching in the Secondary School Cr. 1-16.
    Credits: 12
EDUC M501 - Lab/Field Experience Cr. 0-3.
    Credits: 0
EDUC M470 - Practicum Cr. 3-8.
    (Optional: Practicum in Middle School) Credits: 4

Total Credits: 131–135

Business (B.S.B.)

Program: B.S.B.
SBMS Undergraduate Student Success Center
Richard T. Doermer School of Business and Management Sciences

Neff Hall 366 ~ 260-481-6472 ~ www.ipfw.edu/bms

The student learning outcomes for the degree are as follows:

Upon completion of the Bachelors in Business Degree, students will:
Be able to integrate fundamental principles of business theory and practice.
Be able to solve problems by modeling, analyzing data (qualitative and numeric), and using critical thinking skills.
Be able to understand the global and cultural implications of business decisions.
Be able to understand ethical considerations in business decision.
Be able to understand the relationship between the community and business.
Be able to demonstrate the effective communication and teamwork skills.
Be prepared for life-long learning in a dynamic environment.

The faculty of the Richard T. Doermer School of Business and Management Sciences believe that quality in product and services, competitiveness in the global marketplace, and professionalism are critical to business success. As a result, the undergraduate business curriculum is designed around the principles of competitiveness, quality, and professionalism. Faculty members are dedicated to the development of business professionals who have the knowledge and skills to contribute effectively to their organizations and community.

A significant portion of the B.S.B. curriculum is composed of courses that provide a basic understanding of principles and practices involved in the management of business firms. Another large component, slightly more than half of your credits, is the general education core. These courses provide a well-rounded background necessary for success in a

diverse business environment. Further, in order to ensure a balanced educational program, the business curriculum offers ample opportunities to take courses in a specific concentration area of interest to you.

The B.S.B. program is accredited by the International Association for Management Education (AACSB), which provides a voluntary mechanism of quality control. AACSB is the most prestigious business accrediting body in the nation. Only about one-quarter of all business schools in the nation possess this distinction.

Your initial courses are selected from introductory-level general education, business, and economics subjects. When you have qualified for admission to the B.S.B. program, additional opportunities are provided for in-depth studies in a variety of advanced business, management, and analytical subjects. These advanced studies help you prepare for positions of increasing executive responsibility in the business community.

At the time you are admitted to the B.S.B. program, you must declare a specialization in one of five concentrations: accounting, business economics, finance, management, or marketing.

Admission

Students are admitted as pre-business students until they have completed the specific pre-business requirements needed for admission to the Bachelor's degree program.

To be admitted to the B.S.B. program applicants must have a cumulative GPA of 2.00 or higher and will have completed at least 60 credits that apply toward the degree, including the courses listed below. Within this course listing, successful applicants will have (1) a grade of C or better in each course marked with an * and (2) a GPA of 2.30 or better (the grade for ENG W131 is not included in this GPA calculation).

Courses Specifically Required for Admission to the B.S.B. Program

Course Number and Title		Credits
BUS J100*	*Intro to College and Business Careers*	1
BUS A201*	***Principles of Financial Accounting***	**3**
BUS A202*	***Principles of Managerial Accounting***	**3**
BUS K200*	*Computer Literacy Concepts*	0
BUS K211*	***Spreadsheets for Business***	**1**
BUS K212*	***Introduction to Database Management***	**1**
BUS K213*	***Internet Access and Data Analysis for Business***	**1**
BUS L200*	***Elements of Business Law***	**3**
BUS W204*	***Social, Legal, and Ethical Implications of Business Decisions***	**3**
COM 114	***Fundamentals of Speech Communication***	**3**
ECON E201*	***Introduction to Microeconomics***	**3**

ECON E202*	*Introduction to Macroeconomics*	3
ECON E270*	*Introduction to Statistical Theory in Economics and Business I*	3
ENG W131*	*Elementary Composition I* (or equivalent)	3
ENG W233*	*Intermediate Expository Writing*	3
MA 229	*Calculus for the Managerial, Social, and Biological Sciences I*	3
PSY 120 OR	*Elementary Psychology*	3
SOC S161	*Principles of Sociology*	3
BUS J200	*Business Degree Seminar*	0

Two additional rules apply to applicants' progress through the above courses:

No more than 6 credits of these courses may be repeated, and no course may be repeated more than once.
Both the original and the repeat grades earned in the above courses will be used to compute the admission GPA.
This includes courses that you have taken or repeated at IPFW and other IU campuses. Students who transfer
in more than 20 credits of the 39 credits listed will be admitted to the B.S.B. program on a probationary basis.

Note:

Bachelor's degree programs in business are offered at other Indiana University and IU-Purdue campuses. Since admission and graduation requirements vary among these campuses, you must meet the admission and graduation requirements of the campus from which you intend to graduate.

Enrollment in Business Courses Numbered 300 and Above

Unless you have attained junior class standing and met at least one of the following conditions, you are not permitted to enroll in a business course numbered 300 or above:

You have been admitted to the B.S.B. program at IPFW.
The course is a specified requirement for another bachelor's degree program or minor in which you are enrolled
and you have completed all course prerequisites.
You have obtained written permission from the department through which the course is offered.
If you have enrolled and are not eligible, you will be withdrawn from the course.

B.S.B. REQUIREMENTS

To earn the B.S.B., you must complete a minimum of 123 credits as specified below. You must satisfy the requirements of IPFW (see Part 8) and the Richard T. Doermer School of Business and Management Sciences, earn a grade of C or better in those courses marked with an * , earn a grade of C or better in each BUS and ECON course, and complete the four categories of requirements described below. Developmental courses (e.g., ENG R150, R151, W129and W130; MA 109, 111, and 113) do not apply to degree requirements.

Your final consecutive 30 credits must be taken at IPFW after you have been formally admitted to the B.S.B. program. Business majors may not count BUS, ECON or OLS courses towards their general education requirements (the only exception is OLS 454).

COMPLETION/ TIME LIMIT Many of the upper level courses required for this degree are sequenced, and many are offered only in alternate semesters. Therefore, regardless of the number of credits you may have earned prior to admission to the B.S.B. program, the school cannot guarantee that you will be able to complete all degree requirements in fewer than four regular semesters after admission. It is the school's intention that you possess the most current knowledge and skills when you complete your degree, therefore no more than four years may elapse once you have been admitted to the upper level BSB program. If more than four years have elapsed, your cumulative academic record will be reviewed by the appropriate business or economics department and you will be required to meet the degree criteria specified in the current IPFW Bulletin. This may result in your having to repeat those courses in which the original content is determined to be outdated. In the event that you are not enrolled for one year or more you will be required to follow the current bulleting requirements at the time you return to school.

OVERLAPPING COURSES You may not count toward graduation any courses or sequences considered to have overlapping content.

CREDIT BY SELF_ACQUIRED COMPETENCY IPFW business programs do not award credit for self-acquired competency (experiential credit). Credit awarded on this basis, regardless of its source, will not apply toward IPFW business degrees.

ACADEMIC PROBATION You are on academic probation upon completion of a semester or summer session in which you fail to earn a semester GPA of 2.0 or higher.

TRANSFER CREDIT Generally, courses in basic business and economics subjects (freshman and sophomore level courses) will be accepted as equivalent if they are being transferred from regionally accredited institutions. Courses in advanced business and economics will only be considered equivalent if they are from another business school accredited by the International Association for Management Education (AACSB), were taken within the past four years, and were taken as a junior or senior class standing.   At least 50 percent of required business and economics courses must be completed at IPFW in order for a BSB degree to be awarded.

CORRESPONDENCE STUDY No more than 6 credits earned through correspondence study will be counted toward your undergraduate degree. Business or economics courses taken by correspondence will not apply to undergraduate business degrees. This refers to traditional correspondence courses only (not online courses).

IPFW General Education Requirements (53 credits)

Area I—Linguistic and Numerical Foundations Credits: 9

COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
    (grade of C or better required)
MA 15300 - Algebra and Trigonometry I Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society Credits: 6

Three credits from the coursers listed below and then three addittional credits in either PSY 120 or SOC S161.

ANTH E105 - Culture and Society Cr. 3.
    OR
ANTH L200 - Language and Culture Cr. 3.
    OR
COM 30300 - Intercultural Communication Cr. 3.
    OR
INTL I200 - Introduction to International Studies: Emerging Global Visions Cr. 3.
    OR
PACS P200 - Introduction to Peace and Conflict Studies - Humanities Perspectives Cr. 3.
    OR
PSY 33500 - Stereotyping and Prejudice Cr. 3.
    OR
SPEA E162 - Environment and People Cr. 3.

Psy 120 / Soc S161

PSY 12000 - Elementary Psychology Cr. 3.
    OR
SOC S161 - Principles of Sociology Cr. 3.

Area IV—Humanistic Thought Credits: 6

Additional credits in approved Area IV courses: 3
PHIL 11100 - Ethics Cr. 3.

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses

SBMS Requirements

Additional credits in general education courses excluding business, economics, and OLS courses Credits: 8
COM 32300 - Business and Professional Speaking Cr. 3.
ENG W233 - Intermediate Expository Writing Cr. 3.
    (grade of C or better required)
ENG W331 - Business and Administrative Writing Cr. 3.
MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.
    (if not used in Area I)

Core and Concentration (Major) Courses (46 credits)

Business Principles (16 credits)

BUS J100 - Introduction to College and Business Careers Cr. 1.
BUS A201 - Principles of Financial Accounting Cr. 3.

BUS A202 - Principles of Managerial Accounting Cr. 3.
BUS K200 - Computer Literacy Concepts for Business Cr. 0.
BUS K211 - Spreadsheets for Business Cr. 1.
BUS K212 - Introduction to Database Management Cr. 1.
BUS K213 - Internet Literacy for Business Cr. 1.
BUS L200 - Elements of Business Law Cr. 3.
BUS W204 - Social, Legal, and Ethical Implications of Business Decisions Cr. 3.
BUS J200 - Business Degree Seminar Cr. 0.

Economics Principles (9 credits)

ECON E201 - Introduction to Microeconomics Cr. 3.
ECON E202 - Introduction to Macroeconomics Cr. 3.
ECON E270 - Introduction to Statistical Theory in Economics and Business I Cr. 3.

Management Processes (15 credits)

BUS F301 - Financial Management Cr. 3.
BUS K321 - Management of Information Technology Cr. 3.
BUS M301 - Marketing Management in a Competitive Environment Cr. 3.
BUS P301 - Managing Operations in a Competitive Environment Cr. 3.
BUS Z302 - Management of Organizations and People Cr. 3

Management Policy and Strategy (6 credits)

BUS J401 - Policy and Strategy Cr. 3.
BUS W430 - Organizations and Organizational Change Cr. 3.

Area Concentration Credits: 12–24

12–24 credits in an Area Concentration: Upon admission to the B.S.B. program, you will select one of the following five concentrations, While you may change your concentration at any time during your degree program, changes made after your junior year may result in exceeding the 123 credits required to complete your degree. Specific concentration requirements are listed below.

General Elective Courses Credits: 0–12

0–12 sufficient credits from either business or nonbusiness courses, excluding organizational leadership and supervision courses, to complement your professional and education objective and bring your degree total to at least 123 credits.

Total Credits: 123

Chemistry (B.S.)

Program: B.S.
Department of Chemistry
College of Arts and Sciences

Science Building 496 ~ 260-481-6289 ~ www.ipfw.edu/chem

The student learning outcomes for the degree are as follows:

Mathematical and quantitative reasoning

Students will be able to analyze, synthesize, and comprehend experimental and computational data describing the physical universe. This skill requires knowledge of mathematical and statistical techniques that can be used analytically.

Classical and instrumental laboratory techniques: both analytical and synthetic

Students will learn precise measuring techniques as well as careful and meticulous record-keeping. They will master the use of variety of modern instruments and will become proficient in fundamental organic synthetic methods.

Individual and collaborative problem-solving

The student will develop independent problem-solving skills as well as the ability to work collaboratively in a team environment on complex chemical systems.

Chemical literature

The student will learn basic tools and concepts for efficient use of chemical literature, including multiple computerized databases. The student will also be expected to analyze sources for relevance and authority and to learn how scientific writings are constructed according to style.

Summary of key concepts

In the teaching of Chemistry from the point-of-view of various sub-disciplines, the following concepts form the core course content. It should be noted that courses offered by the IPFW Department of Chemistry will include, but are not simply limited to, the following points of emphasis:

Analytical Chemistry

-- Analytical methods (classical and instrumental)
-- Sensitivity and detection limits
-- Statistical treatment of data

Biochemistry (for premedicine and predental options)
-- Structure, metabolic relationships, and regulation of biomolecules

General Chemistry
-- Semi-quantitative microscopic model of the physical universe based on macroscopic observations
-- Terminology
-- Periodic relationships
-- Elementary computational skills
-- Introductory laboratory skills

Inorganic Chemistry
-- Chemical bonding and structure
-- Reactivity , reaction mechanisms, and properties
-- Solid state and material science
-- Organometallic chemistry
-- Spectroscopic determination of structure

Organic Chemistry

-- Chemical bonding and structure including valence bond and molecular orbital theories
-- Reavtivity, reaction mechanisms, and properties of the important functional groups
-- Synthesis
-- Spectroscopic determination of structure
-- Material science and bio-organic chemistry

Physical Chemistry

-- Mathematical and physical principles that underlie modern Chemistry
-- Detailed understanding of the modern microscopic model of the universe
-- The principal topic areas are:
Quantum Chemistry
Thermodynamics
Statistical mechanics
Spectroscopy
Kinetics

The Bachelor of Science with a major in chemistry program is appropriate for premedical and predental students and as preparation for other careers. With appropriate electives and further education, this program allows you to combine chemistry with other fields of study that support careers such as geochemist, computer scientist, biologist, science librarian, science writer, chemical salesperson, patent attorney, industrial chemist, or environmental chemist.

To earn the B.S. with a major in chemistry, in addition to satisfying the requirements of IPFW (see Part 8) and the College of Arts and Sciences (see Part 4), you must complete the following courses with a cumulative GPA of 2.00 or higher in all CHM courses numbered 300 and above:

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

COM 11400 - Fundamentals of Speech Communication Cr. 3.
MA 16500 - Analytic Geometry and Calculus I Cr. 4.
    (credits included in Supporting Courses, below)

One of the following Credits: 3

ENG W131 - Elementary Composition I Cr. 3.
ENG W140 - Elementary Composition Honors Cr. 3.

Area II—Natural and Physical Sciences

CHM 11500 - General Chemistry Cr. 4.
    (credits included in Major Courses, below)
PHYS 15200 - Mechanics Cr. 5.
    (credits included in Supporting Courses, below)

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (not in CHM) Credits: 3

See Part 2 General Education Requirements for approved courses

College of Arts and Sciences Requirements

English Writing

ENG W233 - Intermediate Expository Writing Cr. 3.

Foreign Language

Credits in a modern foreign language Credits: 8

Core and Concentration (Major) Courses

CHM 11500 - General Chemistry Cr. 4.
CHM 11600 - General Chemistry Cr. 4.
CHM 21800 - Introduction to Inorganic Chemistry Cr. 3.
CHM 26100 - Organic Chemistry Cr. 3.
CHM 26200 - Organic Chemistry Cr. 3.
CHM 26500 - Organic Chemistry Laboratory Cr. 2.
CHM 26600 - Organic Chemistry Laboratory Cr. 2.
CHM 28000 - Chemical Literature Cr. 1.
CHM 32100 - Analytical Chemistry I Cr. 4.
CHM 34200 - Inorganic Chemistry Cr. 3.
CHM 37600 - Physical Chemistry Laboratory Cr. 2.
CHM 38300 - Physical Chemistry Cr. 4.
CHM 38400 - Physical Chemistry Cr. 2.
CHM 42400 - Analytical Chemistry II Cr. 4.
   Not required for premedicine, predental, physical science teaching or chemistry teaching certification options.

One of the following Credits: 1

CHM 49500 - Seminar in Chemistry Cr. 1.
CHM 49600 - Advances in Chemistry I Cr. 0.
CHM 49700 - Advances in Chemistry II Cr. 1.

Supporting Courses

Credits in CS 106, 160, or 210, or equivalent Credits: 3
MA 16500 - Analytic Geometry and Calculus I Cr. 4.
MA 16600 - Analytic Geometry and Calculus II Cr. 4.
MA 26100 - Multivariate Calculus Cr. 4.
PHYS 15200 - Mechanics Cr. 5.
PHYS 25100 - Heat, Electricity, and Optics Cr. 5.

Free Electives

Sufficient additional credits to bring the total to 124.

Total Credits: 124

Premedicine Option

In addition to the requirements for the B.S. with a major in chemistry, students pursuing the premedicine option must take the following courses:

CHM 53300 - Introductory Biochemistry Cr. 3.
CHM 53400 - Introductory Biochemistry Cr. 3.

One of the following sequences Credits: 8

BIOL 10800 - Biology of Plants Cr. 4.
BIOL 10900 - Biology of Animals Cr. 4.
    or
BIOL 11700 - Principles of Ecology and Evolution Cr. 4.
BIOL 11900 - Principles of Structure and Function Cr. 4.

Additional Credits: 14

Predental Option

In addition to the requirements for the B.S. with a major in chemistry, students pursuing the predental option must take the following courses:

CHM 53300 - Introductory Biochemistry Cr. 3.
PSY 12000 - Elementary Psychology Cr. 3.

One of the following sequences Credits: 8

BIOL 10800 - Biology of Plants Cr. 4.
BIOL 10900 - Biology of Animals Cr. 4.
    or
BIOL 11700 - Principles of Ecology and Evolution Cr. 4.
BIOL 11900 - Principles of Structure and Function Cr. 4.

One of the following Credits: 4

BIOL 21500 - Basic Human Anatomy Cr. 4.
BIOL 31500 - Developmental Anatomy Cr. 4.

One of the following Credits: 4

BIOL 21600 - Basic Mammalian Physiology Cr. 4.

Additional Credits: 20

Chemistry (B.S.C.)

Program: B.S.C.
Department of Chemistry
College of Arts and Sciences

Science Building 496 ~ 260-481-6289 ~ www.ipfw.edu/chem

The student learning outcomes for the degree are as follows:

Mathematical and quantitative reasoning
The student will be able to analyze, synthesize, and comprehend experimental and computational data describing the physical universe. This skill requires knowledge of mathematical and statistical techniques that can be used analytically and computationally.

Classical and instrumental laboratory techniques: both analytical and synthetic
Students will learn precise measuring techniques as well as careful and meticulous record-keeping. They will master the use of variety of modern instruments and will become proficient in fundamental organic synthetic methods.

Individual and collaborative problem-solving
The student will develop independent problem-solving skills as well as the ability to work collaboratively in a team environment on complex chemical systems.

Chemical literature

The student will learn basic tools and concepts for efficient use of chemical literature, including multiple computerized databases. The student will also be expected to analyze sources for relevance and authority and to learn how scientific writings are constructed according to style.

Summary of key concepts
In the teaching of Chemistry from the point-of-view of various sub-disciplines, the following concepts form the core course content. It should be noted that courses offered by the IPFW Department of Chemistry will include, but are not simply limited to, the following points of emphasis:

Analytical Chemistry

-- Analytical methods (classical and instrumental)
-- Sensitivity and detection limits
-- Statistical treatment of data

    Biochemistry
-- Structure, metabolic relationships, and regulation of biomolecules

    General Chemistry
-- Semi-quantitative microscopic model of the physical universe based on macroscopic observations
-- Terminology
-- Periodic relationships
-- Elementary computational skills
-- Introductory laboratory skills

    Inorganic Chemistry
-- Chemical bonding and structure
-- Reactivity, reaction mechanisms, and properties
-- Solid state and material science
-- Organometallic chemistry
-- Spectroscopic determination of structure

    Organic Chemistry
-- Chemical bonding and structure including valence bond and molecular orbital theories
-- Reavtivity, reaction mechanisms, and properties of the important functional groups
-- Synthesis
-- Spectroscopic determination of structure
-- Material science and bio-organic chemistry

    Physical Chemistry

      -- Mathematical and physical principles that underlie modern Chemistry
      -- Detailed understanding of the modern microscopic model of the universe
      -- The principal topic areas are:
Quantum Chemistry
Thermodynamics
Statistical mechanics
Spectroscopy
Kinetics

The Bachelor of Science in Chemistry (B.S.C.) program helps you prepare for graduate study in chemistry and chemistry-related careers in industry or government. Providing the best preparation for any career involving chemical research, this program fulfills recommendations of the Committee on Professional Training of the American Chemical Society, and graduates are certified to the ACS as having fulfilled its requirements.

To earn the B.S.C., you must fulfill all requirements for the B.S. with a major in chemistry (listed above) and complete the additional courses listed below.

Degree Requirements

    CHM 34300 - Inorganic Chemistry Laboratory Cr. 1.
    CHM 53300 - Introductory Biochemistry Cr. 3.
    MA 35100 - Elementary Linear Algebra Cr. 3.
    MA 36300 - Differential Equations Cr. 3.

PHYS 34200 - Modern Physics Cr. 3.
PHYS 34300 - Modern Physics Laboratory Cr. 1.

Additional credits from the following Credits: 3

CHM - courses numbered 300 and above
CS 38400 - Numerical Analysis Cr. 3.
PHYS 55000 - Introduction to Quantum Mechanics Cr. 3.
    or other departmentally approved advanced courses in chemical engineering, computer science;
    geochemistry, surface chemistry, mathematics, molecular biology, physics, and other allied fields

Additional Credits: 17

Biochemistry Option

The Bachelor of Science in Chemistry (B.S.C.) with biochemistry option helps you prepare for graduate study in biochemistry, and for biochemically oriented careers, particularly in the pharmaceutical and health industries. This program fulfills recommendations of the Committee on Professional Training of the American Chemical Society, and graduates are certified to the ACS as having fulfilled the requirements.

To earn the B.S.C. biochemistry option, you must fulfill all requirements for the B.S. with a major in chemistry (listed above) and complete the additional courses listed below.

BIOL 11900 - Principles of Structure and Function Cr. 4.
BIOL 21800 - Genetics and Molecular Biology Cr. 4.
CHM 53300 - Introductory Biochemistry Cr. 3.
CHM 53400 - Introductory Biochemistry Cr. 3.
CHM 53500 - Biochemistry Laboratory Cr. 1.

The following is highly recommended:

CHM 49900 - Special Assignments Cr. 1-5

Additional Credits: 16-20

Chemistry with Chemistry Teaching Certification (B.S.)

Program: B.S.
Department of Chemistry
College of Arts and Sciences

Science Building 496 ~ 260-481-6289 ~ www.ipfw.edu/chem

 The student learning outcomes for the degree are as follows:

The student understands the central concepts, tools of inquiry, and the structure of discipline he or she will teach and can create learning experiences that make these aspects of the subject matter meaningful for his or her students. This includes, but is not limited to:

Mathematical and quantitative reasoning

The student will be able to analyze, synthesize, and comprehend experimental and computational data describing the physical universe. This skill requires knowledge of mathematical and statistical techniques that can be used analytically.

Classical and instrumental laboratory techniques: both analytical and synthetic

Students will learn precise measuring techniques as well as careful and meticulous record-keeping. They will master the use of variety of modern instruments and will become proficient in fundamental organic synthetic methods.

Individual and collaborative problem-solving

The student will develop independent problem-solving skills as well as the ability to work collaboratively in a team environment on complex chemical systems.

Chemical literature

The student will learn basic tools and concepts for efficient use of chemical literature, including multiple computerized databases. The student will also be expected to analyze sources for relevance and authority and to learn how scientific writings are constructed according to style.

Summary of key concepts

In the teaching of Chemistry from the point-of-view of various sub-disciplines, the following concepts form the core course content. It should be noted that courses offered by the IPFW Department of Chemistry will include, but are not simply limited to, the following points of emphasis:

Analytical Chemistry
-- Analytical methods (classical and instrumental)
-- Sensitivity and detection limits
-- Statistical treatment of data

General Chemistry

-- Semi-quantitative microscopic model of the physical universe based on macroscopic observations
-- Terminology
-- Periodic relationships
-- Elementary computational skills
-- Introductory laboratory skills

Inorganic Chemistry

-- Chemical bonding and structure
-- Reactivity, reaction mechanisms, and properties
-- Solid state and material science
-- Organometallic chemistry
-- Spectroscopic determination of structure

Organic Chemistry

-- Chemical bonding and structure including valence bond and molecular orbital theories
-- Reavtivity, reaction mechanisms, and properties of the important functional groups
-- Synthesis
-- Spectroscopic determination of structure
-- Material science and bio-organic chemistry

Physical Chemistry

-- Mathematical and physical principles that underlie modern Chemistry

-- Detailed understanding of the modern microscopic model of the universe
-- The principal topic areas are:

Quantum Chemistry

The student understands how children learn and develop, and can provide learning opportunities that support their intellectual, social and personal development.

The student understands how students differ in their approaches to learning and creates instructional opportunities that are adapted to diverse learners.

The student understands and uses a variety of instructional strategies to encourage students' development of critical thinking, problem solving, and performance skills.

The student uses an understanding of individual and group motivation and behavior to create a learning environment that encourages positive social interaction and active engagement in learning and self-motivation.

The student uses knowledge of effective verbal, nonverbal, and media communication techniques to foster active inquiry, collaboration, and supportive interaction in the classroom.

The student plans instruction based upon knowledge of subject matter, the community and curriculum goals.

The student understands and uses formal and informal assessment strategies to evaluate and ensure the continuous intellectual, social and physical development of the learner.

The student is a reflective practitioner who continually evaluates the effects of his or her choices and actions on others (students, parents, and other professionals in the learning community) and who actively seeks out opportunities to grow professionally.

The student fosters relationships with school colleagues, parents, and agencies in the larger community to support students' learning and well-being.

To earn the B.S. with a major in chemistry teaching certification, you must fulfill all requirements (listed earlier) for the B.S. with a major in chemistry (except for foreign language, and you must complete ENG W233 as your writing requirement) and satisfactorily complete the courses listed below.

The School of Education requires that you first complete EDUA F300, EDUC W200/M101, and EDUC K201 before you are permitted to take professional education courses. Prior to your junior year, you must successfully complete the Pre-Professional Skills Test (PPST) before admission to the teacher education program. The PRAXIS II Specialty Area Exam must be completed before or during the student-teaching semester, normally in your senior year.

To be eligible to apply for teacher licensure, you must earn a GPA of 2.00 or higher in each general education area. You should work closely with your advisor to ensure completion of general education requirements for teacher licensing. You must also earn a cumulative GPA of 2.50 or higher in your major area and the professional education courses with an overall GPA of 2.50 or higher. Each professional education course must be completed with a grade of C or better.

School of Education Requirements

Prior to being admitted to the teacher education program, you must complete an initial set of requirements.

Initial Requirements

PPST

EDUA F300 - Topical Exploration in Education Cr. 1-3.
    Course Title: Invitation to Teaching
    Credits: 2
EDUC K201 - Schools, Society, and Exceptionality Cr. 1-3.
    Credits: 1
EDUC M101 - Laboratory/Field Experience Cr. 0-3.
    Credits: 0
EDUC W200 - Using Computers for Education Cr. 1.
    Credits: 1
    (A grade of A or B is required)

Block 1: Teacher Education (prerequisite: Initial Requirements)

EDUC H340 - Education and American Culture Cr. 2-3.
    Credits: 3
EDUC K206 - Teaching Methods for Students with Special Needs Cr. 1-3.
    Credits: 3
EDUC M201 - Laboratory/Field Experience Cr. 0-3.
    Credits: 0
EDUC P250 - General Educational Psychology Cr. 1-4.
    Credits: 3

Block 2: Professional Education (prerequisite: Block 1)

EDUC M301 - Laboratory/Field Experience Cr. 0-3.
EDUC M401 - Laboratory/Field Experience Cr.0-3.
    Credits: 0
EDUC P253 - Educational Psychology for Secondary Teachers Cr. 1-4.
    Credits: 3
EDUC X401 - Critical Reading in the Content Area Cr. 1-3.
    Credits: 3
EDUC Q400 - Man and Environment: Instructional Methods Cr. 3.

Student Teaching

EDUC M501 - Lab/Field Experience Cr. 0-3.
    Portfolio Cr. 0.
EDUC M470 - Practicum Cr. 3-8.
    (recommended for Middle School Endorsement area)
EDUC M480 - Student Teaching in the Secondary School Cr. 1-16.
    Credits: 12

Additional Credits: 37

Civil Engineering (B.S.C.E.)

Program: B.S.C.E.
Department of Engineering
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 327 ~ 260-481-6362 ~ www.engr.ipfw.edu

The student learning outcomes for the degree are as follows:

Graduates will demonstrate basic knowledge in chemistry, mathematics, physics, and engineering

Graduates will demonstrate the ability to identify, formulate, and solve civil engineering problems

Graduates will demonstrate the ability to design and conduct experiments, interpret and analyze data, and report results

Graduates will demonstrate the ability to design a civil engineering system, component, or process that meets desired specifications and requirements

Graduates will demonstrate the ability to function on engineering and science laboratory teams as well as on multidisciplinary design teams

Graduates will use modern engineering software tools and equipment to analyze civil engineering problems and design civil engineering systems

Graduates will demonstrate an understanding of the professional and ethical responsibility

Graduates will be able to communicate effectively in both verbal and written forms

Graduates will have the confidence for self education and the ability for lifelong learning. They will have a broad education to understand the impact of engineering on society and demonstrate awareness of contemporary issues

Civil engineers design, construct, manage, and improve the built environment that is all around us. They are involved in all aspects of what makes a community work: the roads, the public transit systems, the freight transit systems, the buildings, the drinking water system, and the waste water/storm water system. They naturally get involved with city or organization planning. IPFW offers state of-the-art knowledge in all areas of civil engineering such as structures, transportation, geotechnical, construction management, and environmental engineering.

Degree Requirements

To earn the B.S.C.E. at IPFW, you must satisfy the requirements of IPFW (see Part 8) and the College of Engineering, Technology, and Computer Science (see Part 4) ; you must also complete the following courses:

IPFW General Education Requirements Credits: 36

Area I-Linguistic and Numerical Foundations Credits: 10

COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
MA 16500 - Analytic Geometry and Calculus I Cr. 4.

Area II-Natural and Physical Sciences Credits: 9

CHM 11500 - General Chemistry Cr. 4.
PHYS 15200 - Mechanics Cr. 5.

Area III-The Individual, Culture, and Society Credits: 6

with the exception of IET 105
ECON E201 - Introduction to Microeconomics Cr. 3.

Area IV-Humanistic Thought Credits: 6

Area V-Creative and Artistic Expression Credits: 2

ENGR 12000 - Graphical Communications and Spatial Analysis Cr. 2.

AREA VI-Inquiry and Analysis Credits: 3

with the excepiton of:
MA 31400 - Introduction to Mathematical Modeling Cr. 3.
PHYS 32500 - Scientific Computing Cr. 3.
STAT 34000 - Elementary Statistical Methods II Cr. 3.

Freshman Engineering Credits: 6

ENGR 10100 - Introduction to Engineering Cr. 1.
ENGR 12100 - Computer Tools for Engineers Cr. 2.
ENGR 19900 - Introduction to Engineering Design Cr. 3.

Core and Concentration (Major) Course Credits: 47

CE 21000 - Introduction to Geomatics Cr. 3.
CE 25000 - Statics Cr. 3.
CE 25100 - Dynamics Cr. 3.
CE 25200 - Strength of Materials Cr. 3.
CE 31500 - Civil Engineering Materials Cr. 3.
CE 31600 - Civil Engineering Materials Laboratory Cr. 1.
CE 31800 - Fluid Mechanics Cr. 3.
CE 31900 - Fluid Mechanics Laboratory Cr. 1.
CE 33000 - Construction Management Cr. 3.
CE 34500 - Transportation Engineering Cr. 3.
CE 36500 - Environmental Engineering Cr. 3.
CE 37500 - Structural Analysis Cr. 3.
CE 37600 - Design of Concrete Structures Cr. 3.
CE 38000 - Soil Mechanics Cr. 3.

Required Engineering and Mechanical Engineering Courses Credits: 5

ENGR 22100 - C and C++ Programming for Engineers Cr. 2.

ME 20000 - Thermodynamics I Cr. 3.

Mathematics and Science Requirements Credits: 22

MA 16600 - Analytic Geometry and Calculus II Cr. 4.
MA 26100 - Multivariate Calculus Cr. 4.
MA 35100 - Elementary Linear Algebra Cr. 3.
MA 36300 - Differential Equations Cr. 3.
PHYS 25100 - Heat, Electricity, and Optics Cr. 5.
STAT 51100 - Statistical Methods Cr. 3.

Technical Elective Courses Credits: 12

Structural Courses

CE 47500 - Design of Steel Structures Cr. 3.
CE 48000 - Finite Element Analysis Cr. 3.
CE 57000 - Advanced Structural Mechanics Cr. 3.

Environmental and Water Resources Courses

GEOL G451 - Principles of Hydrogeology Cr. 3.
BIOL 34900 - Environmental Science Cr. 3.

Construction Management and Transporation Courses

CE 45100 - Traffic Engineering Cr. 3.

Science Courses

GEOL G300 - Environmental and Urban Geology Cr. 3.
GEOL G305 - Geologic Fundamentals in Earth Science Cr. 3-5.
GEOL G406 - Introduction to Geochemistry Cr. 3.
BIOL 30400 - Major Ideas in Biology Cr. 3.

Special Topics

CE 49000 - Selected Topics in Civil Engineering Cr. 1-6.
CS 38400 - Numerical Analysis Cr. 3.
SE 52000 - Engineering Economics Cr. 3.
MA 51000 - Vector Calculus Cr. 3.
MA 57500 - Graph Theory Cr. 3.
STAT 51200 - Applied Regression Analysis Cr. 3.
A maximum of two courses can be taken from non-civil engineering courses. One technical elective shall be taken from the Science Group.

Total Credits: 128

GPA Requirement

All engineering and technical elective courses must have a combined minimum GPA of 2.0.

Communication Sciences and Disorders (B.S.)

Program: B.S.
Communication Sciences and Disorders
College of Arts and Sciences

Neff Hall 279 ~ 260-481-6410 ~ www.ipfw.edu/aus

The student learning outcomes for the degree are as follows:

Students will acquire basic knowledge of the normal nature and development of speech.
Students will acquire basic knowledge of language and hearing.
Students will acquire basic knowledge of assessment, treatment and prevention of speech, language and hearing disorders.
Students will demonstrate basic clinical skills of assessment.
Students will demonstrate basic skill in the design and implementation of appropriate treatment plans.
Students will acquire oral and written communication abilities and interpersonal skills needed for the assessment and treatment of speech, language and hearing disorders.

This preprofessional degree helps you prepare to pursue the master's degree in speech-language pathology or audiology and the following professional credentials: the Indiana Schools Standard Services-Specialist License, the license from the Indiana Speech-Language Pathology and Audiology Board, and the Certificate of Clinical Competence from the American Speech- Language-Hearing Association.With full academic preparation, including a master's degree in speech-language pathology or audiology, you may begin human-service careers working with children, adults, and/or older persons who have speech, language, or hearing disorders. You will offer professional assistance to enhance our most distinctive human ability — communication.

The curriculum offers courses and practical experiences that prepare you to work with communicatively disabled individuals in such settings as schools, hospitals, agencies, rehabilitation centers, clinics, and private practices. Beginning practicum courses prepare the student to work with clients. These practicum courses offer services through the speech-language clinic to the campus and surrounding community.

To earn the B.S. with a major in speech and hearing therapy, you must fulfill the requirements of IPFW (see Part 8) and the College of Arts and Sciences (see Part 4) in addition to the following requirements:

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of the following:

ENG W131 - Elementary Composition I Cr. 3.
ENG W140 - Elementary Composition Honors Cr. 3.

One of the following:

MA 15300 - Algebra and Trigonometry I Cr. 3.
MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

BIOL 20300 - Human Anatomy and Physiology Cr. 4.
    required

Area III—The Individual, Culture, and Society Credits: 6

LING L103 - Introduction to the Study of Language Cr. 3.
    required; select one course from
PSY 12000 - Elementary Psychology Cr. 3.
    or
SOC S161 - Principles of Sociology Cr. 3.
    or
SOC S163 - Social Problems Cr. 3.

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

PHIL 11100 - Ethics Cr. 3.
    or
PHIL 12000 - Critical Thinking Cr. 3.
    recommended

Area V—Creative and Artistic Expression Credits: 3

Select one:

ENG W103 - Introductory Creative Writing Cr. 3.
JOUR J210 - Visual Communication Cr. 3.
MUS L153 - Introduction to Music Therapy Cr. 3.
    recommended

Area VI—Inquiry and Analysis (not in AUS) Credits: 3

See Part 2 General Education Requirements for approved courses

College of Arts and Sciences Requirements

English Writing Credits: 3

ENG W233 - Intermediate Expository Writing Cr. 3.
    (or other approved writing course)

Foreign Language Credits: 8

Foreign Language (111 and 112)

Core and Concentration (Major) Courses

CSD 11500 - Introduction to Communicative Disorders Cr. 3.
CSD 30200 - Acoustic Bases of Speech and Hearing Cr. 3.
CSD 30400 - Anatomy and Physiology of the Speech and Hearing Mechanism Cr. 4.
CSD 30600 - Introduction to Phonetics Cr. 3.
CSD 30900 - Language Development Cr. 3.
CSD 32100 - Introduction to Phonological Disorders in Children Cr. 3.
CSD 41600 - Introduction to Assessment of Communication Disorders Cr. 3.
CSD 42000 - Introduction to Developmental Speech and Language Disorders Cr. 3.
CSD 46000 - Introduction to Assessment Audiology Cr. 4.

Credits from the following courses:

Students intending to pursue graduate studies are urged to select CSD 449 and should also consider completion of CSD 549. If 549 is not selected, then 590 should be the selection.

CSD 18100 - First Course in American Sign Language Cr. 3.
CSD 18200 - Second Course in American Sign Language Cr. 3.
CSD 39900 - Directed Study in Audiology and Speech Sciences Cr. 1-3.
CSD 40500 - Augmentative and Computer Applications in Speech and Language Cr. 3
CSD 43000 - Speech-Language Disorders in Healthcare Settings Cr. 3.
CSD 44900 - Introduction to Clinical Practice in Speech-Language Pathology Cr. 2-3.
CSD 54900 - Clinical Practice in Speech/Language Pathology I Cr. 1-8.
CSD 55000 - Aural Rehabilitation for Adults Cr. 4.
CSD 55100 - Aural Rehabilitation for Children Cr. 3.
CSD 59000 - Directed Study of Special Problems Cr. 1-6.

General Elective Courses

You may wish to consider elective courses that fulfill requirements for a minor that supports preparation of CSD majors. Sufficient additional credits to bring the total to 124. Recommended:

BIOL 20400 - Human Anatomy and Physiology Cr. 4.
COM 30300 - Intercultural Communication Cr. 3.
EDUC K201 - Schools, Society, and Exceptionality Cr. 1-3.
EDUC K206 - Teaching Methods for Students with Special Needs Cr. 1-3.
PHIL 31200 - Medical Ethics Cr. 3.
PSY 12000 - Elementary Psychology Cr. 3.
PSY 23500 - Child Psychology Cr. 3.
PSY 35000 - Abnormal Psychology Cr. 3.
SOC S161 - Principles of Sociology Cr. 3.
SOC S163 - Social Problems Cr. 3.

Total Credits: 124

Computer Engineering (B.S.Comp.E.)

Program: B.S.Comp.E.
Department of Engineering
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 327 ~ 260-481-6362 ~ www.engr.ipfw.edu

The student learning outcomes for the computer engineering degree are as follows:

- Graduates will demonstrate basic knowledge in chemistry, mathematics, physics, and engineering
- Graduates will demonstrate the ability to identify, formulate, and solve computer engineering problems
- Graduates will demonstrate the ability to design, perform, and simulate experiments, to analyze data, and to interpret results
- Graduates will demonstrate the ability to design a computer system, component, or process that meets desired specifications and requirements
- Graduates will demonstrate the ability to function on engineering and science laboratory teams as well as on multidisciplinary design teams
- Graduates will use modern engineering tools to analyze computer engineering problems
- Graduates will demonstrate an understanding of professional and ethical responsibility
- Graduates will communicate effectively in both verbal and written forms
- Graduates will have the confidence for self education and the ability for lifelong learning. They will have a broad education to understand the impact of engineering on society and demonstrate awareness of contemporary issues

Computer engineers design, develop, and manage systems that process, store, and transmit information. These systems include personal computers, workstations, mainframe computers, computer networks, and all of their various components. Computer engineers are particularly involved in the design and development of "embedded" computers used in aircraft, automobiles, communication systems, biomedical instruments, industrial robots, and household appliances. Designing these systems raises both hardware and software issues; a computer engineer typically has the hardware background of an electrical engineer and the software background of a computer scientist. Computer engineers can choose to specialize in areas such as very large scale integrated (VLSI) systems design, embedded systems, electronic design automation and networks, and communications. IPFW offers state of-the-art knowledge in all areas of computer engineering such as computer architecture, software engineering, and robotics. In addition to traditional classes, our curriculum includes an innovative set of common first-year courses, integrated design experiences, hands-on laboratories, and a two-semester capstone project in which students design, build, and test a device.

Degree Requirements

To earn the B.S.Comp.E. at IPFW, you must satisfy the requirements of IPFW (see Part 8) and the College of Engineering, Technology, and Computer Science (see Part 4); you must also complete the following courses:

IPFW General Education Requirements Credits: 36

Area I—Linguistic and Numerical Foundations Credits: 10

COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
MA 16500 - Analytic Geometry and Calculus I Cr. 4.

Area II—Natural and Physical Sciences Credits: 9

CHM 11500 - General Chemistry Cr. 4.
PHYS 15200 - Mechanics Cr. 5.

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

with the exception of IET 105
ECON E201 - Introduction to Microeconomics Cr. 3.

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 2

ENGR 12000 - Graphical Communications and Spatial Analysis Cr. 2.

Area VI—Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses

with the exception of:
MA 31400 - Introduction to Mathematical Modeling Cr. 3.
PHYS 32500 - Scientific Computing Cr. 3.
STAT 34000 - Elementary Statistical Methods II Cr. 3.

Freshman Engineering Credits: 6

ENGR 10100 - Introduction to Engineering Cr. 1.
ENGR 12100 - Computer Tools for Engineers Cr. 2.
ENGR 19900 - Introduction to Engineering Design Cr. 3.

Core and Concentration (Major) Courses Credits: 49

ECE 20100 - Linear Circuit Analysis I Cr. 3.
ECE 20200 - Linear Circuit Analysis II Cr. 3.
ECE 27000 - Introduction to Digital System Design Cr. 4.
ECE 29300 - Measurements and Instrumentation Cr. 2.
ECE 30100 - Signals and Systems Cr. 3.
ECE 30200 - Probabilistic Methods in Electrical Engineering Cr. 3.
ECE 35800 - Introduction to VHDL Programing Cr. 3.
ECE 36200 - Microprocessor Systems and Interfacing Cr. 4.

ECE 36800 - Data Structures Cr. 3.
ECE 38700 - Electronics and System Engineering Through Robotics Cr. 3.
ECE 38800 - Electronics and System Engineering Through Robotics Lab Cr. 1
ECE 40500 - Senior Engineering Design I Cr. 3.
ECE 40600 - Senior Engineering Design II Cr. 3.
ECE 43700 - Computer Design and Prototyping Cr. 4.
ECE 48500 - Embedded Real-Time Operating Systems Cr. 4.
ENGR 22100 - C and C++ Programming for Engineers Cr. 2.
ENGR 22200 - Object Oriented Programming Cr. 1.

Required Mechanical Engineering Courses Credits: 3

ME 25300 - Statics and Dynamics Cr. 3.

Mathematics and Science Requirements Credits: 22

MA 16600 - Analytic Geometry and Calculus II Cr. 4.
MA 26100 - Multivariate Calculus Cr. 4.
MA 27500 - Intermediate Discrete Math Cr. 3.
MA 35100 - Elementary Linear Algebra Cr. 3.
MA 36300 - Differential Equations Cr. 3.
PHYS 25100 - Heat, Electricity, and Optics Cr. 5.

Technical Elective Courses Credits: 12

Computer Engineering Electives

CS 32100 - Introduction to Computer Graphics Cr. 3.
CS 36000 - Software Engineering Cr. 3.
CS 38400 - Numerical Analysis Cr. 3.
ECE 37300 - Numerical Methods for Engineers Cr. 3.
ECE 42800 - Modern Communication Systems Cr. 3.
ECE 46500 - Embedded Microprocessors Cr. 3.
ECE 54700 - Introduction to Computer Communication Networks Cr. 3.
ECE 56500 - Computer Architecture Cr. 3.
　　An ECE 495/595 course can be included in the Computer Engineering Electives with approval. A course
　　cannot count towards both an undergraduate and graduate degree.

Engineering Electives

ECE 25500 - Introduction to Electronic Analysis and Design Cr. 3.
ECE 31100 - Electric and Magnetic Fields Cr. 3.
ECE 33300 - Automatic Control Systems Cr. 3.
ECE 43600 - Digital Signal Processing Cr. 3.
ECE 48300 - Digital Control Systems - Analysis and Design Cr. 3.
ECE 54300 - Wireless Communication Networks Cr. 3.

Math and Science Electives

MA 41700 - Mathematical Programming Cr. 3.
MA 41800 - Computations Laboratory for MA 417 Cr. 1.
PHYS 32200 - Optics Cr. 3.
PHYS 34200 - Modern Physics Cr. 3.
PHYS 34500 - Optics Laboratory I Cr. 1.
PHYS 55000 - Introduction to Quantum Mechanics Cr. 3.

Total Credits: 128

GPA Requirement

All engineering & technical elective courses must have a combined minimum GPA of 2.0

Computer Engineering Technology (B.S.)

Program: B.S.
Department of Computer and Electrical Engineering Technology & Information Systems and Technology
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 205 ~ 260-481-6338 ~ www.ceit.ipfw.edu

The student learning objectives for the degree are:

Graduates will have:

An appropriate mastery of the knowledge, techniques, skills and modern tools of computer engineering technology.
An ability to apply current knowledge and adapt to emerging applications of mathematics, science, engineering and technology.
An ability to conduct, analyze and interpret experiments and apply experimental results to improve processes.
An ability to apply creativity in the design of systems, components or processes appropriate to program objectives.
An an ability to function effectively on teams.
An ability to identify, analyze and solve technical problems.
An ability to communicate effectively in writing, and in oral presentation.
A recognition of the need for, and an ability to engage in lifelong learning.
The knowledge of and respect for diverse backgrounds and contemporary societal and global issues concerning the profession.
A commitment to quality, timeliness, and continuous improvement.

The B.S. in CPET program focuses on applications and application packages in areas of information technology and electronics to support information technology. This can be contrasted with Computer Engineering programs where the focus is on the theory and design of computer-based systems and Computer Science with a focus on computer program design. A graduate of this program will have the training and skills encompassed by a combination of CPET, ECET, CS, and supporting science, mathematics, general education, and other technical areas. CPET courses generally focus on software strongly related to hardware, while ECET courses focus on hardware and related software. A strong feature of the CPET program is the adaptability of the curriculum to concentrate on technical applications similar to those being developed and implemented for use in industry such as: industrial networking, web-based control, electronic devices, web services, and other aspects of enterprise networking. During the latter portion of the B.S. in CPET program, the student also qualifies for an A.S. in EET.

The curriculum described below provides a technical education in the area of industrial and enterprise computer networking. The core provides the student with basic instruction in analog and digital circuit analysis with hands-on laboratory work. It also introduces the fundamentals of computer systems, programming, and applications using word processors, spreadsheets, and highand low-level computer languages. The specialization area provides in-depth knowledge about networking and the requisite hardware and software. Other required courses provide mathematical and communication skills, and sufficient knowledge of the industrial environment to perform effectively in the workplace. the B.S. also enables you to pursue advanced degrees in management, engineering, technology, or computer science.

The CEIT department also offers the Bachelor and Associate of Science with a major in electrical engineering technology and an Associate and Bachelor of Science with a major in information systems. In addition to the degrees, the department offers a minor in electronics, and minor in information systems and certificate programs in computer-controlled systems, electronic communications, power electronics systems, and computer networking.

To earn the degree, you must fulfill the requirements of IPFW (see Part 8) and of the College of Engineering, Technology, and Computer Science (see Part 4); and complete the following courses:

IPFW General Education Requirements

The courses listed below will meet the IPFW General Education Requirements required in the Bachelor of Science in computer engineering technology.

Area I—Linguistic and Numerical Foundations Credits: 9

COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
    ENG W131 Grade C or above required.
MA 15300 - Algebra and Trigonometry I Cr. 3.

Area II—Natural and Physical Sciences Credits: 7

CHM 11100 - General Chemistry Cr. 3.
PHYS 21800 - General Physics Cr. 4.

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

IET 10500 - Industrial Management Cr. 3.

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis Credits: 6

CPET 49000 - Senior Design Project I Cr. 1.
CPET 49100 - Senior Design Project II Cr. 2.
ENG W421 - Technical Writing Projects Cr. 1-3.
    Credits:3

Core and Concentration (Major) Courses

CPET 490 and CPET 491 also counted as CPET core courses.

CPET 10100 - Electrical Circuits Cr. 4.
CPET 18100 - Computer Operating Systems Basics Cr. 3.
CPET 28100 - Local Area Networks and Management Cr. 3.
CPET 35500 - Data Communications and Networking Cr. 4.
CPET 36400 - Networking Security Cr. 3.
CPET 47000 - Technology Project Management Cr. 3.
CPET 49000 - Senior Design Project I Cr. 1.
CPET 49100 - Senior Design Project II Cr. 2.
ECET 11100 - Digital Circuits Cr. 4.
ECET 11400 - Introduction to Visual Basic Cr. 3.
ECET 14600 - Digital Circuits II Cr. 3.
ECET 15200 - Electrical Circuits II Cr. 4.
ECET 20400 - Analog Electronics II Cr. 4.
ECET 20500 - Introduction to Microprocessors Cr. 4.
ECET 26400 - C Programming Language Applications Cr. 3.
ECET 29600 - Electronic System Fabrication Cr. 2-3.

Required CPET/ECET/CS Elective Courses Credits: 12

At least two courses or 6 of the 12 elective credits must be CPET/ECET courses. Two courses or 6 of the 12 elective credits may be CS courses.

Selected from the following:

CPET 38400 - Wide Area Network Design Cr. 3.
CPET 49300 - Wireless Networking Cr. 3.
CPET 49400 - Java Programming Applications Cr. 4.
CPET 49500 - Web Engineering and Design Cr. 4.
ECET 30200 - Introduction to Control Systems Cr. 4.
ECET 30500 - Advanced Microprocessors Cr. 4.
ECET 30700 - Analog Network Signal Processing Cr. 4.
ECET 34600 - Advanced Digital Circuits Cr. 3-4.
ECET 36100 - Introduction to PLC and Pneumatic Systems Cr. 4.
ECET 36500 - Electrical Measurements Cr. 4.
ECET 37700 - Introduction to Fiber Optics Cr. 4.
ECET 38200 - C++ Object Oriented Programming for Industrial Applications Cr. 4.
ECET 39300 - Industrial Practice III Cr. 1-5.
ECET 39400 - Industrial Practice IV Cr. 1-5.
ECET 39500 - Industrial Practice V Cr. 1-5.
ECET 40300 - Communications II Cr. 4.
ECET 41100 - Microcomputer Interfacing Cr. 4.
ECET 41400 - Wireless Communications Cr. 4.
ECET 43400 - PC Systems II Cr. 4.

ECET 46600 - Windows Programming for Industrial Applications Cr. 4.
ECET 47300 - Microwaves Cr. 4.

Required Computer Sciences Courses Credits: 8

CS 16000 - Introduction to Computer Science I Cr. 4.
CS 16100 - Introduction to Computer Science II Cr. 4.

Required Math Courses Credits: 16

MA 15400 - Algebra and Trigonometry II Cr. 3.
MA 17500 - Introductory Discrete Mathematics Cr. 3.
MA 22700 - Calculus for Technology I Cr. 4.
MA 22800 - Calculus for Technology II Cr. 3.
STAT 30100 - Elementary Statistical Methods I Cr. 3.

Required English Technical Writing Courses Credits: 3

ENG W234 - Technical Report Writing Cr. 3.

Total Credits: 127

Minor in Computer Science (B.S. CPET) Credits: 20

If you use the two CPET/ECET/CS Electives in the curriculum for two of the courses, you can receive a CS minor by taking only one course not in the curriculum. See your advisor for more information on the forms required to pursue a Minor.

(Only computer science courses in which you have earned a grade of C or better can be applied to the degree or used to satisfy prerequisites)

Approved computer science courses at the 200 level or above Credits: 6
CS 16000 - Introduction to Computer Science I Cr. 4.
CS 16100 - Introduction to Computer Science II Cr. 4.
CS 26000 - Data Structures Cr. 3.
MA 17500 - Introductory Discrete Mathematics Cr. 3.

Minor in Mathematics Credits (B.S. CPET): 20

Only one additional Mathematics course (MA 321 or MA 351) is required for a Mathematics Minor beyond the courses required in the curriculum. See your advisor for more information on the forms required to pursue a Minor.

CS 16000 - Introduction to Computer Science I Cr. 4.
MA 17500 - Introductory Discrete Mathematics Cr. 3.
MA 22700 - Calculus for Technology I Cr. 4.
MA 22800 - Calculus for Technology II Cr. 3.
MA 32100 - Applied Differential Equations Cr. 3.
    or
MA 35100 - Elementary Linear Algebra Cr. 3.

STAT 30100 - Elementary Statistical Methods I Cr. 3.
    or
STAT 51100 - Statistical Methods Cr. 3.

Computer Science (B.A.)

Program: B.A. (in cooperation with the School of Arts and Sciences)
Department of Computer Science
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 125 ~ 260-481-6803 ~ www.cs.ipfw.edu

The student learning outcomes for the degree are as follows:

Students who complete the B.A. program in Computer Science should have mastered fundamental concepts in important areas of computing such as data structures and numerical analysis.

Offered within a liberal-arts framework, the Bachelor of Arts program in computer science helps you prepare for graduate studies or a career in computer science.

To earn the B.A. with a major in computer science, you must fulfill the requirements of IPFW (see Part 8) and the College of Arts and Sciences (see Part 4) in addition to the requirements below. No more than 10 credits with D grades can be applied to the degree. Of the mathematics courses numbered below MA 261, only MA 165, MA 166, and MA 175 apply toward the degree; statistics courses must be numbered 490 or higher to be counted.

Students interested in this program should contact the Department of Mathematical Sciences.

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

Quantitative reasoning requirement satisfied by the mathematics courses below Credits: 0
COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of the following Credits: 3

ENG W131 - Elementary Composition I Cr. 3.
ENG W140 - Elementary Composition Honors Cr. 3.

Area II—Natural and Physical Sciences

Credits in approved two-course sequence in biology, chemistry, geosciences, or physics Credits: 8–10

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis

MA 31400 - Introduction to Mathematical Modeling Cr. 3.
   (credits included in Mathematics and Statistics Requirement, below)

School of Arts and Sciences Requirements (29 credits)

English Writing

ENG W233 - Intermediate Expository Writing Cr. 3.
   (or other approved writing course)

Foreign Language

Requirements in Arts and Sciences Part B Credits: 14

Distribution

Credits in Social and Behavioral Sciences Credits: 3
Credits in Humanities Credits: 3
MA 16600 - Analytic Geometry and Calculus II Cr. 4.
   satisfies the science and mathematics requirement (credits included in Mathematics and Statistics
   Requirement, below)

Cultural Studies

Requirements in Arts and Sciences Part D Credits: 6

Computer Science Core (32 credits)

Credits in approved advanced computer science courses at the 300 or 400 level Credits: 6
CS 16000 - Introduction to Computer Science I Cr. 4.
CS 16100 - Introduction to Computer Science II Cr. 4.
CS 26000 - Data Structures Cr. 3.
CS 27100 - Computer Architecture Cr. 3.
CS 35000 - Programming Language Design Cr. 3.
CS 38400 - Numerical Analysis Cr. 3.
CS 48600 - Analysis of Algorithms Cr. 3.
CS 48800 - Theory of Computation Cr. 3.

Mathematics and Statistics Requirement (20 credits)

MA 16500 - Analytic Geometry and Calculus I Cr. 4.
MA 16600 - Analytic Geometry and Calculus II Cr. 4.
MA 17500 - Introductory Discrete Mathematics Cr. 3.
MA 31400 - Introduction to Mathematical Modeling Cr. 3.

One of the following Credits: 3

MA 35100 - Elementary Linear Algebra Cr. 3.
MA 51100 - Linear Algebra with Applications Cr. 3.

One of the following Credits: 3

STAT 51100 - Statistical Methods Cr. 3.
STAT 51600 - Basic Probability and Applications Cr. 3.

Free Electives (9–11 credits)

Credits in approved free electives sufficient to bring total to 124.

Total Credits: 124

Computer Science (B.S.)

Program: B.S.
Department of Computer Science
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 125 ~ 260-481-6803 ~ www.cs.ipfw.edu

The student learning outcomes for the degree are as follows:

An ability to apply knowledge of computing and mathematics appropriate to the discipline.
An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution.
An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet
    desired needs.
An ability to function effectively on teams to accomplish a common goal.
An understanding of professional, ethical, legal, security and social issues and responsibilities.
An ability to communicate effectively with a range of audiences.
An ability to analyze the local and global impact of computing on individuals, organizations, and society.
Recognition of the need for and an ability to engage in continuing professional development.
An ability to use current techniques, skills, and tools necessary for computing practice.
An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling
    and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in
    design choices.
An ability to apply design and development principles in the construction of software systems of varying
    complexity.
This program helps you prepare for a career in computer science and for possible graduate study.

The B.S. program in computer science is accredited by the Computing Accreditation Commission of ABET Inc., 111 Market Place, Suite 150, Baltimore, MD 21202-402, telephone, 410-347-7700. In addition to satisfying the requirements of IPFW (see Part 8) and the College of Engineering, Technology, and Computer Science (see Part 4), you must complete the following. Only computer science courses in which you have earned a grade of C or better can be applied to the degree or used to satisfy prerequisites. A maximum of 10 credits of D grades will be accepted in other courses.

IPFW General Education Requirements (40 Credits)

Area I—Linguistic and Numerical Foundations (10 Credits)

COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
MA 16500 - Analytic Geometry and Calculus I Cr. 4.

Area II—Natural and Physical Sciences (12 Credits)

Laboratory Science Sequence (8-10 Credits)

One of the following lab science sequences must be taken.

Course Number	Course Title	Credits
BIOL 108/109	Biology of Plants and Biology of Animals	8
BIOL 117/119	Principles of Ecology and Evolution and Principles of Structure and Function	8
CHM 115/116	General Chemistry I and II	8
GEOL G103/G104/G211	Earth Science: Materials and Processes, Earth Science: Evolution of the Earth, and Introduction to Paleobiology	9
PHYS 152/251	Mechanics and Heat, Electricity and Optics	10
PHYS 201/202	General Physics I and II	10
PHYS 218/219	General Physics I and II	8
PHYS 220/221	General Physics I and II	8

Science Elective (3-4 Credits)

BIOL 10800 - Biology of Plants Cr. 4.
BIOL 10900 - Biology of Animals Cr. 4.
BIOL 11700 - Principles of Ecology and Evolution Cr. 4.
BIOL 11900 - Principles of Structure and Function Cr. 4.

BIOL 21500 - Basic Human Anatomy Cr. 4.
BIOL 25000 - Women and Biology Cr. 3.
BIOL 32600 - Heredity: A Human Perspective Cr. 3.
BIOL 35000 - Plant Physiology Cr. 4.
CHM 11500 - General Chemistry Cr. 4.
CHM 11600 - General Chemistry Cr. 4.
CHM 21800 - Introduction to Inorganic Chemistry Cr. 3.
CHM 22400 - Introductory Quantitative Analysis Cr. 4.
CHM 26100 - Organic Chemistry Cr. 3.
GEOL G103 - Earth Science: Materials and Processes Cr. 3.
GEOL G104 - Earth Science: Evolution of the Earth Cr. 3.
GEOL G210 - Oceanography Cr. 3.
GEOL G211 - Introduction to Paleobiology Cr. 3.
GEOL G221 - Introductory Mineralogy Cr. 3-4.
PHYS 15200 - Mechanics Cr. 5.
PHYS 20100 - General Physics I Cr. 5.
PHYS 20200 - General Physics II Cr. 5.
PHYS 21800 - General Physics Cr. 4.
PHYS 21900 - General Physics II Cr. 4.
PHYS 22000 - General Physics Cr. 4.
PHYS 22100 - General Physics Cr. 4.
PHYS 25100 - Heat, Electricity, and Optics Cr. 5.
PHYS 30200 - Puzzles, Strategy Games, and Problem Solving in the Physical Sciences Cr. 3.

Area III—The Individual, Culture, and Society (6 Credits)

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought (6 Credits)

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression (3 Credits)

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (3 Credits)

See Part 2 General Education Requirements for approved courses

CS 306 may not be used to fulfill this requirement.

Major Requirements (54 Credits)

CS 16000 - Introduction to Computer Science I Cr. 4.
CS 16100 - Introduction to Computer Science II Cr. 4.
CS 23200 - Introduction to C and Unix Cr. 3.
CS 26000 - Data Structures Cr. 3.
CS 27100 - Computer Architecture Cr. 3.
CS 27400 - Data Communications Cr. 3.

CS 35000 - Programming Language Design Cr. 3.
CS 36000 - Software Engineering Cr. 3.
CS 36400 - Introduction to Database Systems Cr. 3.
CS 46000 - Capstone Design and Professional Practice Cr. 4.
CS 47200 - Operating Systems Design Cr. 3.
CS 48600 - Analysis of Algorithms Cr. 3.

Concentration Area (15 Credits)

To satisfy the Concentration Area requirement, at least 9 credit hours must be chosen from one concentration. The 6 remaining credit hours may be distributed among the other concenration areas. With prior written approval from the Department, 3 credit hours may be chosen from CS 492, CS 494 or CS 495.

Software Engineering Concentration

CS 33100 - Introduction to C++ and Object-Oriented Programming Cr. 3.
CS 36800 - Human-Computer Interaction Cr. 3.
CS 46700 - Project Management Cr. 3.

Network Computing Concentration

CS 37200 - Web Application Development Cr. 3.
CS 37400 - Computer Networks Cr. 3.
CS 44500 - Computer Security Cr. 3.

Informatics Concentration

CS 32100 - Introduction to Computer Graphics Cr. 3.
CS 36400 - Introduction to Database Systems Cr. 3.
CS 38000 - Artificial Intelligence Cr. 3.
CS 42100 - Advanced Computer Graphics Cr. 3.

Theoretical Foundations Concentration

CS 38400 - Numerical Analysis Cr. 3.
CS 47400 - Compiler Construction Cr. 3.
CS 48800 - Theory of Computation Cr. 3.

Supporting Courses (16 Credits)

ENG W234 - Technical Report Writing Cr. 3.
MA 16600 - Analytic Geometry and Calculus II Cr. 4.
MA 17500 - Introductory Discrete Mathematics Cr. 3.
MA 35100 - Elementary Linear Algebra Cr. 3.
     or
MA 51100 - Linear Algebra with Applications Cr. 3.
STAT 51100 - Statistical Methods Cr. 3.

Electives (14 Credits)

Approved Electives (11 Credits)

Total Credits: 124

Construction Engineering Technology (B.S.)

Program: B.S.
Department of Manufacturing and Construction Engineering Technology and Interior Design
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 221 ~ 260-481-4127 ~ www.mcet.ipfw.edu

The student learning outcomes for the degree are as follows:

An appropriate mastery of the knowledge, techniques, skills and modern tools of their disciplines.
> Utilizing modern instruments, methods and techniques to implement construction contracts, documents, and codes.
> Evaluate materials and methods for construction projects.
> Utilize modern surveying methods for construction layout.
> Estimate material quantities.
> Estimate material costs.

An ability to apply current knowledge and adapt to emerging applications of mathematics, science, engineering and technology.
> Utilize current industry standard equipment.
> Employ productivity software to solve problems.

An ability to conduct. Analyze and interpret experiments and apply experimental results to improve processes.
> Determine forces and stresses in structural systems.
> Perform economic analyses related to design, construction, and maintenance.

An ability to apply creativity in the design of systems, components or processes appropriate to program objectives.
> Produce design for construction and operations documents utilization.
> Perform standard analysis and design in one technical specialty in construction.
> Select appropriate construction materials and practices.

An ability to function effectively on teams.
> Participate actively in team activities during and outside class.

An ability to identify, analyze and solve technical problems.
> Apply basic concepts to the solution of hydraulic and hydrology problems.
> Apply basic concepts to the solution of geotechnics problems.
> Apply basic concepts to the solution of structures problems.
> Apply basic concepts to the solution of construction scheduling and management.
> Apply basic concepts to the solution of construction safety problems.

An ability to communicate effectively.
> Demonstrate effective oral communication skills.
> Demonstrate effective written communication skills.

A recognition of the need for, and an ability to engage in lifelong learning.
> Conduct web and library research and report findings.

An ability to understand professional, ethical and social responsibilities in construction.
> Apply principles of construction law and ethics.
> Perform service learning.

A respect for diversity and a knowledge of contemporary professional, societal and global issues.
> Understand societal and global issues.

Understand issues of human diversity.
A commitment to quality, timeliness, and continuous improvement.
Produce work of quality and timeliness.
Evaluate each course each semester.

Mission

To provide employers and the public of northeast Indiana with educated, technologically equipped graduates, able to serve the varied construction industries (represented by architectural, civil, and construction engineering technologies, and interior design) in advancing the solutions to problems facing the public and private sector.

Goals

To provide education of the traditional and returning adult student for career success in the construction industry.
To develop a respect for diversity and a knowledge of contemporary professional, societal, and global issues with an understanding of professional and ethical responsibilities.
To be responsive to the ever-changing technologies of the construction industries.
To instill in students the desire for and ability to engage in lifelong learning.
The breadth of the curriculum will provide leadership potential in addressing problems of the region, its people, and its industries.

This program is open to those who have earned an associate degree in architectural engineering technology or civil engineering technology, or the equivalent. Concentrations provide opportunities to prepare you for work in a specific segment of the construction industry. You may choose options in architectural engineering technology, civil engineering technology, or construction engineering technology. Graduates of this program take jobs with contractors, building-materials companies, utilities, architectural firms, engineering firms, and government agencies. The construction engineering technology program does not lead to licensure as a professional engineer or registered architect.

The program is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone, 410-347-7700. It provides you with problem solving skills, hands-on competency, and required state-of-the-art technical knowledge. Alumni of the department are employed in all areas of the building industry, including construction; architecture;interior design; civil engineering; land surveying; and state, county, and city governments.

To earn the B.S. with a major in construction engineering technology, you must fulfill the requirements of IPFW (see Part 8) and the College of Engineering, Technology, and Computer Science (see Part 4), those for an associate degree in architectural engineering technology or civil engineering technology, and the additional requirements below:

IPFW General Education Requirements

Area II—Natural and Physical Sciences Credits: 4

GEOL G100 - General Geology Cr. 3-5.
GEOL L100 - General Geology Laboratory Cr. 1-2.

Area III—The Individual, Culture, and Society Credits: 3

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 3

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses

ETCS General Distribution Requirements Credits: 10

ENG W234 - Technical Report Writing Cr. 3.
MA 22700 - Calculus for Technology I Cr. 4.

One of following:

COM 31500 - Speech Communication of Technical Information Cr. 3.
COM 32300 - Business and Professional Speaking Cr. 3.

Core and Concentration (Major) Courses Credits: 36

Major Courses

Technical Selective Credits: 3
    (department-approved courses)
ARET 35500 - Techniques of Land Utilization Cr. 3.
CET 38100 - Structural Analysis Cr. 4.
CET 43100 - Properties and Behavior of Soils Cr. 3.
CNET 34400 - Constructed Project Quality I Cr. 3.
CNET 34800 - Senior Capstone Design Project I Cr. 3.
CNET 44200 - Costs Estimating Cr. 3.
CNET 44300 - Engineered Construction Cr. 3.
CNET 44500 - Construction Project Management I Cr. 3.
CNET 44800 - Senior Capstone Design Project II Cr. 3.
CNET 45700 - Construction Safety Cr. 3.

Structural Selectives Credits: 3

CET 38500 - Fundamentals of Reinforced Concrete Cr. 3.
    or
CET 48200 - Steel Structure Design Cr. 3.

Subtotal Credits: 62

Credits from the A.S. CET or A.S. ARET: 68

Total Credits: 130

Economics (B.A.)

Program: B.A.
College of Arts and Sciences

Neff Hall 366B ~ 260-481-6483 ~ www.ipfw.edu/econ

The student learning outcomes for the degree are not available for this degree, contact the program office.

Economics is the study of the rational allocation of scarce resources. The major seeks to develop those critical skills that help you understand and solve problems in a wide variety of circumstances. These analytical abilities are valuable in the business world and many professional disciplines such as law and social work.

This program is offered in close cooperation with the Department of Economics in the Richard T. Doermer School of Business and Management Sciences, which offers all economics courses required for the major.

To earn the B.A. with a major in economics, you must fulfill the requirements of IPFW (see Part 8) and the College of Arts and Sciences (see Part 4), in addition to the following requirements. Correspondence courses, whether from Indiana University or elsewhere, may not be used to satisfy any of the requirements for this major.

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of the following: Credits: 3

ENG W131 - Elementary Composition I Cr. 3.
ENG W140 - Elementary Composition Honors Cr. 3.

One of the following: Credits: 3-4

MA 16500 - Analytic Geometry and Calculus I Cr. 4.
MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society

   Additional credits in Area III: 3
   ECON E201 - Introduction to Microeconomics Cr. 3.

Area IV—Humanistic Thought Credits: 6

Area V—Creative and Artistic Expression Credits: 3

Area VI—Inquiry and Analysis (not in ECON) Credits: 3

College of Arts and Sciences Requirements

English Writing

   ENG W233 - Intermediate Expository Writing Cr. 3.
      (or other approved writing course)

Foreign Language

   Requirements in Arts and Sciences Part B Credits: 14

Distribution

Requirements in Arts and Sciences Part C Credits: 9

Cultural Studies

   Requirements in Arts and Sciences Part D Credits: 6

Economics Core Courses (15 credits)

   ECON E201 - Introduction to Microeconomics Cr. 3.
   ECON E202 - Introduction to Macroeconomics Cr. 3.
   ECON E270 - Introduction to Statistical Theory in Economics and Business I Cr. 3.
   ECON E321 - Intermediate Microeconomic Theory Cr. 3.
   ECON E322 - Intermediate Macroeconomic Theory Cr. 3.
   ECON E406 - Senior Seminar Cr. 3.
   Additional Economics Courses Credits: 9
      Additional credits in 300/400-level economics courses or in other courses approved by the economics faculty;
      at least two of these courses must be completed at IPFW.

General Elective Courses

Sufficient additional credits to bring the total to 124.

Total Credits: 124

Electrical Engineering (B.S.E.E.)

Program: B.S.E.E.
Department of Engineering
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 327 ~ 260-481-6362 ~ www.engr.ipfw.edu

The student learning outcomes for the electrical degree are as follows:

Graduates will demonstrate basic knowledge in chemistry, mathematics, physics, and engineering

Graduates will demonstrate the ability to identify, formulate, and solve electrical engineering problems

Graduates will demonstrate the ability to design, perform, and simulate experiments, to analyze data, and to interpret results

Graduates will demonstrate the ability to design a system, component, or process that meets desired specifications and requirements

Graduates will demonstrate the ability to function on engineering and science laboratory teams as well as on multidisciplinary design teams

Graduates will use modern engineering tools to analyze electrical engineering problems

Graduates will demonstrate an understanding of professional and ethical responsibility

Graduates will communicate effectively in both verbal and written forms

Graduates will have the confidence for self education and the ability for lifelong learning. They will have a broad education to understand the impact of engineering on society and demonstrate awareness of contemporary issues

Electrical engineers design, develop, and operate systems that generate and use electrical signals and power. The scope of electrical engineering has expanded tremendously in recent years. It is now the largest branch in engineering, with most graduates employed by manufacturers of electrical and electronic equipment, aircraft, business machines, and scientific equipment. IPFW offers state of-the-art knowledge in all areas of electrical engineering such as robotics, signal processing, and wireless communications. In addition to traditional classes, our curriculum includes an innovative set of first-year courses, integrated design experiences, hands-on laboratories, and a two-semester capstone project in which students design, build, and test a device as part of team.

To earn the B.S.E.E. at IPFW, you must satisfy the requirements of IPFW (see Part 8) and the College of Engineering, Technology, and Computer Science (see Part 4); you must also complete the following courses:

IPFW General Education Requirements Credits: 36

Area I—Linguistic and Numerical Foundations Credits: 10

COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
MA 16500 - Analytic Geometry and Calculus I Cr. 4.

Area II—Natural and Physical Sciences Credits: 9

CHM 11500 - General Chemistry Cr. 4.
PHYS 15200 - Mechanics Cr. 5.

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

with the exception of IET 105
ECON E201 - Introduction to Microeconomics Cr. 3.

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 2

ENGR 12000 - Graphical Communications and Spatial Analysis Cr. 2.

Area VI—Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses

with the exception of:
MA 31400 - Introduction to Mathematical Modeling Cr. 3.
PHYS 32500 - Scientific Computing Cr. 3.
STAT 34000 - Elementary Statistical Methods II Cr. 3.

Freshman Engineering Credits: 6

ENGR 10100 - Introduction to Engineering Cr. 1.
ENGR 12100 - Computer Tools for Engineers Cr. 2.
ENGR 19900 - Introduction to Engineering Design Cr. 3.

Core and Concentration (Major) Courses Credits: 48

ECE 20100 - Linear Circuit Analysis I Cr. 3.
ECE 20200 - Linear Circuit Analysis II Cr. 3.
ECE 20800 - Election Devices and Design Laboratory Cr. 1.
ECE 25500 - Introduction to Electronic Analysis and Design Cr. 3.
ECE 27000 - Introduction to Digital System Design Cr. 4.
ECE 29300 - Measurements and Instrumentation Cr. 2.
ECE 30100 - Signals and Systems Cr. 3.
ECE 30200 - Probabilistic Methods in Electrical Engineering Cr. 3.
ECE 31100 - Electric and Magnetic Fields Cr. 3.
ECE 33300 - Automatic Control Systems Cr. 3.
ECE 36200 - Microprocessor Systems and Interfacing Cr. 4.
ECE 38700 - Electronics and System Engineering Through Robotics Cr. 3.

ECE 38800 - Electronics and System Engineering Through Robotics Lab Cr. 1
ECE 40500 - Senior Engineering Design I Cr. 3.
ECE 40600 - Senior Engineering Design II Cr. 3.
ECE 42800 - Modern Communication Systems Cr. 3.
ECE 43600 - Digital Signal Processing Cr. 3.
ENGR 22100 - C and C++ Programming for Engineers Cr. 2.
ENGR 22200 - Object Oriented Programming Cr. 1.

Required Mechanical Engineering Courses Credits: 3

ME 25300 - Statics and Dynamics Cr. 3.

Mathematics and Science Requirements Credits: 22

MA 16600 - Analytic Geometry and Calculus II Cr. 4.
MA 26100 - Multivariate Calculus Cr. 4.
MA 27500 - Intermediate Discrete Math Cr. 3.
MA 35100 - Elementary Linear Algebra Cr. 3.
MA 36300 - Differential Equations Cr. 3.
PHYS 25100 - Heat, Electricity, and Optics Cr. 5.

Technical Elective Courses Credits: 9

At least 3 credits must be from the list of electrical engineering electives

Electrical Engineering Electives

ECE 37300 - Numerical Methods for Engineers Cr. 3.
CS 38400 - Numerical Analysis Cr. 3.
ECE 46000 - Power Electronics Cr. 3.
ECE 46500 - Embedded Microprocessors Cr. 3.
ECE 48300 - Digital Control Systems - Analysis and Design Cr. 3.
ECE 47400 - Introduction to Radio Frequency Circuit Design Cr. 3.
ECE 48500 - Embedded Real-Time Operating Systems Cr. 4.
    An ECE 495/595 course can be included as an Electrical Engineering Elective with approval. A course
    cannot count towards both an undergraduate and graduate degree.

Engineering Electives

CS 32100 - Introduction to Computer Graphics Cr. 3.
CS 36000 - Software Engineering Cr. 3.
ECE 35800 - Introduction to VHDL Programing Cr. 3.
ECE 36800 - Data Structures Cr. 3.
ECE 43700 - Computer Design and Prototyping Cr. 4.
ECE 49500 - Selected Topics in Electrical Engineering Cr. 1-4.
ECE 54700 - Introduction to Computer Communication Networks Cr. 3.
SE 52000 - Engineering Economics Cr. 3.
ME 30100 - Thermodynamics II Cr. 3.

Math and Science Electives

    MA 41700 - Mathematical Programming Cr. 3.
    MA 41800 - Computations Laboratory for MA 417 Cr. 1.
    PHYS 32200 - Optics Cr. 3.
    PHYS 34200 - Modern Physics Cr. 3.
    PHYS 34500 - Optics Laboratory I Cr. 1.
    PHYS 55000 - Introduction to Quantum Mechanics Cr. 3.

Total Credits: 127

GPA Requirement

All engineering & technical elective courses must have a combined minimum GPA of 2.0

Electrical Engineering Technology (B.S.)

Program: B.S.
Department of Computer and Electrical Engineering Technology & Information Systems and Technology
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 205 ~ 260-481-6338 ~ www.ceit.ipfw.edu

The learning outcomes for the degree are as follows:

- An appropriate mastery of the knowledge, techniques, skills and modern tools of electrical engineering technology.
- An appropriate mastery of the knowledge, techniques, skills and modern tools of electrical engineering technology.
- An ability to apply current knowledge and adapt to emerging applications of mathematics, science, engineering and technology.
- An ability to conduct, analyze and interpret experiments and apply experimental results to improve processes.
- An ability to apply creativity in the design of systems, components or processes appropriate to program objectives.
- An ability to function effectively on teams.
- An ability to identify, analyze and solve technical problems.
- An ability to communicate effectively in writing, and in oral presentation.
- A recognition of the need for, and an ability to engage in lifelong learning.
- An ability to understand professional, ethical and social responsibilities.
- The knowledge of and respect for diverse backgrounds and contemporary societal and global issues concerning the profession.
- A commitment to quality, timeliness, and continuous improvement.

The four-year B.S. EET program prepares students for careers in many fields related to engineering, in electronics or computer related industries, manufacturing, engineering sales, or any industry that uses electric power, electronic communications, computer networks, or computer-controlled equipment. The program provides students with advanced study in specialized fields of electronics and computer networking and provides other courses to build a foundation of technical and non-technical knowledge that is essential in modern industry.

The CEIT department also offers the Bachelor of Science with a major in computer engineering technology (CPET), an Associate of Science in EET and an Associate and Bachelor of Science with a major in information systems. In addition to the degrees, the department offers a minor in electronics, and minor in information systems and certificate programs in computer-controlled systems, electronic communications, power electronics systems, and computer networking.

To earn the degree, you must complete the A.S. with a major in electrical engineering technology (see above); fulfill the requirements of IPFW (see Part 8) and of the College of Engineering, Technology, and Computer Science (see Part 4); and complete the following courses:

IPFW General Education Requirements

The courses listed below will meet the IPFW General Education Requirements required in the Bachelor of Science in electrical engineering technology.

Area I—Linguistic and Numerical Foundations Credits: 0 (+9 credits in A.S. Program)

These courses are all required for A.S. degree

COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
   ENG W131 Grade C or above required.
MA 15300 - Algebra and Trigonometry I Cr. 3.

Area II—Natural and Physical Sciences Credits: 3 (+4 Credits in A.S. Program)

PHYS 218 is required for the A.S. degree)

CHM 11100 - General Chemistry Cr. 3.
PHYS 21800 - General Physics Cr. 4.

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

IET 10500 - Industrial Management Cr. 3.

Area IV—Humanistic Thought Credits: 3 (+3 credits in A.S. Program)

See Part 2 General Education Requirements for approved courses

One Area IV course is taken for the A.S. degree

Area V—Creative and Artistic Expression Credits: 3

Area VI—Inquiry and Analysis Credits: 6

ECET 49000 - Senior Design Project, Phase I Cr. 1-2.

ECET 49100 - Senior Design Project, Phase II Cr. 2-5.

ENG W421 - Technical Writing Projects Cr. 1-3.

Core and Concentration (Major) Courses Credits: 15

ECET 490 and ECET 491 also counted as ECET core courses.

ECET 30200 - Introduction to Control Systems Cr. 4.
   or
ECET 30300 - Communications I Cr. 4.
ECET 30700 - Analog Network Signal Processing Cr. 4.
ECET 35700 - Real-Time Digital Signal Processing Cr. 4.
ECET 47000 - Technology Project Management Cr. 3.
ECET 49000 - Senior Design Project, Phase I Cr. 1-2.

ECET 49100 - Senior Design Project, Phase II Cr. 2-5.

Required ECET/CPET elective courses selected from the following Credits: 12

CPET 28100 - Local Area Networks and Management Cr. 3.
CPET 36400 - Networking Security Cr. 3.
CPET 38400 - Wide Area Network Design Cr. 3.
CPET 49300 - Wireless Networking Cr. 3.
CPET 49400 - Java Programming Applications Cr. 4.
CPET 49500 - Web Engineering and Design Cr. 4.
CPET 49900 - Computer Engineering Technology Cr. 1-4.

ECET 30500 - Advanced Microprocessors Cr. 4.
ECET 34600 - Advanced Digital Circuits Cr. 3-4.
ECET 36100 - Introduction to PLC and Pneumatic Systems Cr. 4.
ECET 36500 - Electrical Measurements Cr. 4.
ECET 37700 - Introduction to Fiber Optics Cr. 4.
ECET 38200 - C++ Object Oriented Programming for Industrial Applications Cr. 4.
ECET 40300 - Communications II Cr. 4.
ECET 41100 - Microcomputer Interfacing Cr. 4.
ECET 41400 - Wireless Communications Cr. 4.
ECET 43400 - PC Systems II Cr. 4.
ECET 43500 - Electronic Industrial Controls Cr. 3.
ECET 45300 - Topics in Telecommunications Cr. 4.
ECET 46600 - Windows Programming for Industrial Applications Cr. 4.
ECET 47300 - Microwaves Cr. 4.

ECET 49900 - Electrical Engineering Technology Cr. 1-9.

Select Either:

CPET 35500 - Data Communications and Networking Cr. 4.
ECET 35500 - Data Communications and Networking Cr. 4.

Select Either:

CPET 37500 - Microprocessor-Based Digital Systems Cr. 3-4.
ECET 37500 - Computer Controlled System Designs Cr. 3-4.

Select Either:

CPET 47200 - Automatic Control Systems Cr. 4.
ECET 47200 - Automatic Control Systems Cr. 4.

Select Either:

CPET 48600 - Robotics and Control Electronics with Microcomputers Cr. 4.
ECET 48600 - Robotics and Control Electronics with Microcomputers Cr. 4.

Non-ECET technical elective courses Credits:3

CS, MET, or IET courses preferred *(credits may also be from co-op or military service)*

Required math courses Credits: 6 (+ 10 credits in A.S. Program)

MA 32100 - Applied Differential Equations Cr. 3.
STAT 30100 - Elementary Statistical Methods I Cr. 3.

Required English Technical Writing Course Credits: 3

ENG W234 - Technical Report Writing Cr. 3.

Total Credits: 129 (69 in A.S. Program + 60 for B.S.)

Minor in Mathematics Credits: 20

Only two additional courses (CS 160 and MA 175) are required for a Mathematics Minor beyond the courses required in the curriculum. One can be taken as your Non-ECET elective. See your advisor for more information on the forms required to pursue a Minor.

CS 16000 - Introduction to Computer Science I Cr. 4.
MA 17500 - Introductory Discrete Mathematics Cr. 3.
MA 22700 - Calculus for Technology I Cr. 4.

MA 22800 - Calculus for Technology II Cr. 3.
MA 32100 - Applied Differential Equations Cr. 3.
STAT 30100 - Elementary Statistical Methods I Cr. 3.

Elementary Education (B.S.Ed.)

Program: B.S.Ed.
Department of Educational Studies
School of Education

Neff Hall 250 ~ 260-481-6441 ~ www.ipfw.edu/educ

The student learning outcomes for the degree are as follows:

Becoming more caring, humane and functional citizens in a global, multicultural, democratic society
Improving the human condition by creating positive learning environments
Becoming change agents by demonstrating reflective professional practice
Solving client problems through clear, creative analyses
Assessing client performance, creating and executing effective teaching, counseling, and educational leadership by utilizing a variety of methodologies reflecting current related research
Utilizing interdisciplinary scholarship, demonstrating technology and critical literacies, and effectively communicating with all stakeholders.

The B.S.Ed. in elementary education is intended to prepare students for successful careers as teachers of children in elementary-primary, and elementary-intermediate (K-6) classroom settings. Upon satisfactory completion of the program, you are eligible to apply for an Indiana teaching license.

To earn the B.S.Ed. in elementary education, you must satisfy the requirements of IPFW (see Part 8) and the School of Education.

IPFW General Education Requirements Credits: 56-58

Area I—Linguistic and Numerical Foundations Credits: 18

COM 11400 - Fundamentals of Speech Communication Cr. 3.
    (a grade of 3.0 or better is required)
ENG W131 - Elementary Composition I Cr. 3.
    (a grade of 3.0 or better is required)
ENG W233 - Intermediate Expository Writing Cr. 3.
    (a grade of 3.0 or better is required)
MA 10100 - Mathematics for Elementary Teachers I Cr. 3.
MA 10200 - Mathematics for Elementary Teachers II Cr. 3.
MA 10300 - Mathematics for Elementary Teachers III Cr. 3.

Area II—Natural and Physical Sciences Credits: 9-10

See Part 2 General Education Requirements for approved courses

Biology Credits: 3
Chemistry or Physics Credits: 3

Geology or Astronomy Credits: 3
Science lab requirement Credits: 0-1

Area III—The Individual, Culture, and Society Credits: 12

See Part 2 General Education Requirements for approved courses

American History Credits: 3
Economics or Political Science Credits: 3
Sociology or Psychology 120 Credits: 3
    and one of the following:
FWAS H201 - Humanities I: The Ancient World Cr. 3.
FWAS H202 - Humanities II: Foundations of the Modern Western World Cr. 3.
HIST H232 - The World in the 20th Century Cr. 3.

Area IV—Humanistic Thought Credits: 9

See Part 2 General Education Requirements for approved courses

Philosophy Credits: 3
ENG L101 - Western World Masterpieces I: Ancient to Renaissance Cr. 3.
    or
ENG L102 - Western World Masterpieces II: Renaissance to Modern Cr. 3.
ENG L390 - Children's Literature Cr. 3.

Area V—Creative and Artistic Expression Credits: 5-6

    One of the following FINA courses:
FINA T255 - Crafts and Design Cr. 3.
FINA H101 - Art Appreciation Cr. 3.
    One of the following MUS courses:
MUS Z241 - Introduction to Music Fundamentals Cr. 2.
MUS Z101 - Music for the Listener Cr. 3.
    Must select FINA T255 or MUS Z241 or both

Area VI—Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses

School of Education Requirements Credits: 67

Preprofessional Educational Requirements Credits: 15

Prior to being admitted to the Block 1: Teacher Education program you must complete the following initial requirements:

PPST (Pre-Professional Skills Test)
EDUC F200 - Examining Self as a Teacher Cr. 3.
    C: EDUC P250 and EDUC M101
EDUC P250 - General Educational Psychology Cr. 1-4.

C: EDUC F200 and EDUC M101

EDUC Q200 - Introduction to Scientific Inquiry Cr. 1-3.

EDUC W200 - Using Computers for Education Cr. 1.

(a grade of B or better is required) (C: M101)

Credits 1-3

EDUC M101 - Laboratory/Field Experience Cr. 0-3.

Credits: 0 (C: EDUC F200, EDUC P250, and EDUC W200)

CSD 11500 - Introduction to Communicative Disorders Cr. 3.

Block 1: Teacher Education Credits: 12

EDUA F300 Topical Exploration in Literacy Education Cr. 3 (C: EDUC P315 and EDUC M301)

EDUC H340 - Education and American Culture Cr. 2-3.

EDUC K305 - Teaching the Exceptional Learner in the Elementary School Cr. 3.

EDUC M301 - Laboratory/Field Experience Cr. 0-3.

EDUC P315 - Child Development in Early Childhood Cr. 3. (C: EDUA F300 and EDUC M301)

Additional Education Courses Credits: 4

If prerequisites have been met, these two courses can be taken any time after admission to the School of Education and before Student Teaching.

EDUC M323 - The Teaching of Music in the Elementary Schools Cr. 2.

EDUC M333 - Art Experiences for the Elementary Teacher Cr. 2.

Block 2: Professional Education (P: Block 1) Credits: 12

EDUC E337 - Classroom Learning Environments Cr. 3.

EDUC E370 - Language Arts & Reading I Cr. 3.

EDUC K307 - Methods for Teaching Students with Special Needs Cr. 3.

EDUC P375 - Classroom and Community Leadership Cr. 3.

EDUC M301 - Laboratory/Field Experience Cr. 0-3.

Block 3: Professional Education (P: Block 2) Credits: 12

EDUC E325 - Social Studies in the Elementary Schools Cr. 3.

EDUC E328 - Science in the Elementary Schools Cr. 3.

EDUC E371 - Language Arts and Reading II Cr. 3.

EDUC N343 - Mathematics in the Elementary School Cr. 3.

EDUC M401 - Laboratory/Field Experience Cr.0-3.

Student Teaching (P: Block 3) Credits 12

EDUC M501 - Portfolio Credits: 0

EDUC M425 - Student Teaching: Elementary Cr. 1-16.

Credits: 12

Total Credits: 123

English (B.A.)

Program: B.A.
Department of English and Linguistics

Liberal Arts Building 145 ~ 260-481-6841 ~ www.ipfw.edu/engl

The student learning outcomes for the degree are as follows:

> Students display the ability to write critically, precisely, and persuasively, especially about topics relevant to their major field and their selected concentration.
> Students demonstrate the ability to communicate knowledge of literary, linguistics, and rhetorical conventions and traditions, especially those of America and England.
> Students can apply the appropriate research tools and methods to demonstrate critical understanding of their selected concentrations.

To earn the B.A. with a major in English, you must fulfill the requirements of IPFW (see Part 8), the College of Arts and Sciences (see Part 4), and those listed below.

As you complete your degree, you will be required to submit clean copies of two papers to the department. The first paper must be from a course taken during the first 15 credits you count toward the major, and the second from a course taken thereafter and counted toward the major. Both papers should be from courses taught in the department, be appropriate to your concentration, and represent your best work. At least one should be based on research and include documentation. Please turn the paper in before the end of the appropriate semester and include a copy of the assignment, if it is available.

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of the following Credits: 3

ENG W131 - Elementary Composition I Cr. 3.
ENG W140 - Elementary Composition Honors Cr. 3.

One of the following Credits: 3

MA 15300 - Algebra and Trigonometry I Cr. 3.
MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 3

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression

See Part 2 General Education Requirements for approved courses

Credits not in your major discipline: 3

Area VI—Inquiry and Analysis

See Part 2 General Education Requirements for approved courses

Credits not in your major discipline: 3

College of Arts and Sciences Requirements

English Writing

ENG L202 - Literary Interpretation Cr. 3.

Foreign Language credits: 14

Requirements in Arts and Sciences Part B

Distribution (not in major discipline) Credits: 9

Requirements in Arts and Sciences Part C

Cultural Studies Credits: 6

Requirements in Arts and Sciences Part D

Core and Concentration (Major) Courses

ENG L202 - Literary Interpretation   Cr. 3
Credits in Writing (ENG W203 or a W-prefixed course above the 200-level): 3
Credits in American literature: 3
Credits in British literature before 1700: 3
Credits in British literature after 1700: 3
Credits in language study (linguistics, history of the English language, or Old or Middle English literature): 3
Credits in one of the concentrations as listed: 15–53
      Literature
      Writing

Teacher Certification
Language
Communication Media

General Elective Courses Credits: 0–32

Sufficient elective credits, selected in consultation with your advisor

Total Credits: 124

Fine Arts (B.A.)

Program: B.A.
Department of Fine Arts
College of Visual and Performing Arts

Visual Arts Building 117 ~ 260-481-6705 ~ www.ipfw.edu/vpa/finearts

The student learning outcomes for the degree are as follows:

Students will develop fundamental technical skills in 2D and 3D media to successfully express artistic ideas and develop an artistic awareness through visual expression. Students who are interested in the B.A. program combine advanced General Education study in such areas as anthropology, english, languages, and pyschology towards such careers as Art History, Art Management, and Art Therapy.

The Bachelor of Arts degree is designed to enable students to see, formulate, and articulate concepts through the manipulation of form and materials. The art-making practice is through Department of Fine Arts studio concentrations including ceramics, metalsmithing, drawing, painting, printmaking, and sculpture. The B.A. program is a broad-based liberal arts degree which allows students to explore wide-ranging interests in and out of studio art study. Students can choose to concentrate in a specific art discipline, or may explore a wide range of artistic disciplines. The Bachelor of Arts degree is divided into three parts; 33 credit hours of General Studies, 57-69 credit hours of Content Field (Art Studio and Art History classes), and 21-33 credit hours of General Liberal Arts classes. A total of 123 credit hours of study are required for graduation. Students in the Department of Fine Arts B.A. program must maintain a minimum 2.0 cumulative GPA.

Admission to B.A. Program with a Major in Fine Arts

To earn the B.A., you must fulfill the requirements of IPFW (see Part 8) and the College of Visual and Performing Arts (see Part 4). Students within the fine arts B.A. must maintain a minimum 2.0 GPA within the Content Field (see below).

Components	Credits
I. General Education	33
II. Content Field	57-69
III. General Liberal Arts	21-33
Total	123

IPFW General Education Requirements Credits: 33

Area I Linguistic and Numerical Foundations Credits: 9

See Part 2 General Education Requirements for approved courses

Quantitative Reasoning Credits: 3
COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

(Fine arts majors may not use any FINA-prefixed courses to fulfill this requirement)

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

(Fine arts majors may not use any FINA-prefixed courses to fulfill this requirement)

Area VI—Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses

College of Visual and Performing Arts Requirements

II. Content Field Credits: 57-69

Students must complete three (3) classes in Art History (9 cr.) plus 36-48 credit hours of studio work to fulfill the Content Field.

100 level Foundation Requirements Credits: 12

FINA P121 - Drawing Fundamentals I-II Cr. 3.
    (P121 is a pre-requisite to P122)
FINA P122 - Drawing Fundamentals I-II Cr. 3.
FINA P151 - Design Fundamentals I-II Cr. 3.

FINA P152 - Design Fundamentals I-II Cr. 3.

100 Level Foundation Portfolio Review Checkpoint

Students in all of the Department of Fine Arts programs will submit a portfolio of 100 level Foundation studio work to be reviewed by Department of Fine Arts faculty. The review is a checkpoint to assure that students have met adequate quality standards in the Foundation program. The portfolio should consist of 12-15 works, with at least two works from each 100 level Foundation course. Upon a satisfactory portfolio review, students will continue in 200 level Fundamentals studio classes. Some students may be asked to re-take certain Foundation classes to attain department standards.

200 Level Studio Requirements Credits: 12

200 Level Studio*   9 cr.

At least one class each from the 2D and 3D area below.

    FINA P223 Figure Drawing (2D)
    FINA P225 Painting Fundamentals (2D)
    FINA P241 Printmaking Fundamentals (2D)
    FINA P231 Sculpture Fundamentals (3D)
    FINA P233 Metalsmithing Fundamentals (3D)
    FINA P235 Ceramics Fundamentals (3D)
     plus

    VCD P273 Computer Art and Design   3 cr.
*Additional 200 level Fundamentals classes beyond the four required can be used in the B.A. Advanced Studio area listed below.

Petition into the B.F. A. Program

Students may petition the Department of Fine Arts to enter the (Bachelor of Fine Arts) B.F.A. program after taking **all** of the above 200 level Fundamental classes.   Candidates for the B.F.A. program will be asked to fill out an application, present a portfolio for review (see below) of seven (7) 200 level studio classes, and be part of an interview with Department of Fine Arts faculty. Judgment will be made based on the above criteria and a review of grades.

Art History Requirements Credits: 9

    FINA H111 - Ancient and Medieval Art Cr. 3.
    FINA H112 - Renaissance Through Modern Art Cr. 3.
       (H111 and H112 must be taken in the first four semesters of study)
       One additional FINA 300 or 400 level Art History class.

Advanced Studio Courses Credits: 24-36

Studio Electives

At least eight (8)but no more than twelve (12) studio classes can be taken at the Advanced Studio level. At least two classes must be taken at the 300 level in each area of concentration before 400 level classes. 400 level classes can be repeated to meet credit requirements. Of the total credit hours in this category, up to four (4) studio classes can be taken from the Department of Visual Communications and Design (VCD) unless permission from your advisor is given to include more. Advanced studio classes should be selected in consultation with the Chair of the Department of Fine Arts.

III. General Liberal Arts Courses Credits: 21-33

A minimum of seven (7) but no more than eleven (11) liberal arts courses are needed to fulfill the B.A. requirements. Liberal Arts classes are defined as any IPFW class counted towards a degree (does not include remedial courses). An option of pursuing a minor in an outside field is encouraged within these credits.

Total Credits: 123

Recommendations, Requirements, Transfers, and Policies

Recommendations Students should schedule classes within the B.A. program under the guidance of the official departmental advisor.

Residence Requirements For a bachelor's degree, registration in and completion of at least 33 credits of resident course credit at the 200 level or above, including at least 15 credits at the 300 level or above, in courses applicable to the major.

Transfer and Returning Student Credit All studio and art history courses transferred from another institution or former IPFW art programs must be evaluated by appropriate faculty in the Department of Fine Arts program before they may be applied to a major in Fine Arts. See Transfer and Returning Student Credit Review.

Transfer and Returning Student Credit Review Courses in studio art that have been transferred to IPFW from another institution or former IPFW art programs are not counted as part of the Fine Arts major unless they have been reviewed by the Fine Arts faculty. For a review of transferred studio credit, the student should provide the viewer with a portfolio consisting of representative work in each area (e.g. painting, sculpture, etc.) for which the transfer credit is desired. The portfolio should include both studies and finished work and be as encompassing as possible.

Academic Probation/Dismissal Policies
If a student does not meet the university's GPA standard, they will be notified that they have been placed on academic probation and will be asked to make progress towards meeting campus standards. Department of Fine Arts programs have their own academic standards as stated above. If a student is not meeting these standards, they will be notified and placed on departmental academic probation. If a student does not make positive progress towards meeting the academic standards of the department within twelve (12) credit hours of study, they will be subject to dismissal from the Department of Fine Arts program.

Fine Arts (B.F.A.)

Program: B.F.A.
Department of Fine Arts
College of Visual and Performing Arts

Visual Arts Building 117 ~ 260-481-6705 ~ www.ipfw.edu/vpa/finearts

The student learning outcomes for the degree are as follows:

Students within the Bachelor of Fine Arts program will acquire the technical virtuosity to be successful as professional artists. Many students who seek a B.F.A. degree have aspirations towards graduate studies in a Masters of Fine Arts (M.F.A.) degree leading to careers such as professorship positions, corporate commissions, gallery ownership, museum curatorships, art criticism, and independent studio careers.

The Bachelor of Fine Arts program is designed for exceptional students who are interested in pursuing a professional career in the field of fine arts. They must have demonstrated superior quality and motivation in a particular studio art discipline. Students within the B.F.A. program can concentrate in ceramics, drawing, metal-smithing, painting, printmaking, or sculpture. Department of Fine Arts students who wish to attain a B.F.A. start in the B.A. program, then petition for formal entrance into the B.F.A. program after the completion of 200-level studio requirements. The Bachelor of Fine Arts degree is divided into two parts; 33 credit hours of General Education classes, and 90 credit hours of art history and studio classes. All B.F.A. students must

maintain a 2.5 cumulative G.P.A. and a 3.0 G.P.A. within the Content Field courses (studio and art history) of the B.F.A. program. A total of 123 credit hours of study are required for graduation.

Admission

Students must meet the requirements of IPFW (see Part 8)

Components:	Credits
I. General Education	33
II. Content Field	90
Total	123

IPFW General Education Requirements Credits: 33

Area I—Linguistic and Numerical Foundations Credits: 9

See Part 2 General Education Requirements for approved courses

Quantitative Reasoning Credits: 3
COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

(Fine arts majors may not use any FINA-prefixed courses to fulfill this requirement.)

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

(Fine arts majors may not use any FINA-prefixed courses to fulfill this requirement).

Area VI—Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses

College of Visual and Performing Arts Requirements

II. Content Field Credits: 90

Students must complete a minimum of 75 credit hours in studio and 15 credit hours in FINA art history classes for the B.F.A.

100 Level Foundation Courses Credits: 12

FINA P121 - Drawing Fundamentals I-II Cr. 3.
    (P121 is a prerequisite to P122)
FINA P122 - Drawing Fundamentals I-II Cr. 3.
FINA P151 - Design Fundamentals I-II Cr. 3.
FINA P152 - Design Fundamentals I-II Cr. 3.

100 Level Foundation Portfolio Review Checkpoint

Students in all of the Department of Fine Arts programs will submit a portfolio of 100 level Foundation studio work to be reviewed by Department of Fine Arts faculty. The review is a checkpoint to assure that students have met adequate quality standards in the Foundation program. The portfolio should consist of 12-15 works, with at least two works from each 100 level Foundation course. Upon a satisfactory portfolio review, students will continue in 200 level Fundamentals studio classes. Some students may be asked to re-take certain Foundation classes to attain department standards.

Art History Course Requirements Credits: 15

3 additional FINA 300 or 400 level Art History classes. Classes must have FINA prefix.
FINA H111 - Ancient and Medieval Art Cr. 3.
FINA H112 - Renaissance Through Modern Art Cr. 3.
    (H111 and H112 must be taken in the first four semesters of study)

200-Level Course Requirements Credits: 21

FINA P223 - Figure Drawing I Cr. 3.
FINA P225 - Painting Fundamentals I Cr. 3.
FINA P231 - Sculpture Fundamentals Cr. 3.
FINA P233 - Metalsmithing Fundamentals Cr. 3.
FINA P235 - Ceramics Fundamentals Cr. 3.
FINA P241 - Printmaking Fundamentals Cr. 3.
VCD P273 - Computer Art and Design I Cr. 3.

B.F.A. Portfolio Review

Each student must submit a portfolio of 200 level work to attain formal acceptance into the B.F.A. program. Each petitioning student must apply to present their work through the Department of Fine Arts office in the semester in which they complete all seven 200 level Fundamentals classes. Each student applying for acceptance into the B.F.A. program will declare their area of studio concentration, i.e., painting, sculpture, with the understanding that areas of art can be interdisciplinary and flexible. The portfolio should consist of 15-20 works, with at least two works from each

200 level Fundamentals course. Consideration of work will be given in accordance to each student's intended concentration area, i.e., printmaking majors should be able to show strong drawing skills. It is highly recommended that students seek faculty advice, especially from faculty whose area students are intending to apply, on which works to submit for review. Faculty evaluations will be based on a student's strong knowledge and skills in:

- Showing competence in representational drawing of volume, pictorial space, and the depiction of the human figure. An understanding of linear perspective should be evident.
- The ability to compose aesthetic element of line, tone/value, shape, texture, color, and 3D form in space.
- Demonstrating technical and aesthetic excellence (for the 60 credit level) in your chosen major; i.e. drawing, ceramics, metalsmithing, painting, printmaking, or sculpture.
- (for 2D majors) drawing, painting, printmaking as well as the demonstration of competence and serious investigation in 3D media.
- (for 3D majors) ceramics, metalsmithing, and sculpture with competence and serious investigation in 2D media.

B.F.A. Portfolio Review Outcome

A student applying for acceptance in the B.F.A. program may be accepted, deferred, or denied. A student's acceptance into the B.f.a. will allow them to advance into 300 level studio classes as a declared B.F.A. major. A deferred student will be asked to re-submit their portfolio for B.F.A. consideration after re-taking requested classes. A student denied entry into the B.F.a. program may wish to continue in the B.A. program or apply once again for entry into the B.F.A. program with permission from the department.

300/400-Level Concentration Courses Credits: 21

Complete seven classes in declared Concentration Area. Some of these classes might be closely related such as painting and printmaking or sculpture and ceramics. Two 300 level classes must be taken before any 400 level classes in a given area. 400 level classes can be repeated to meet Concentration area requirements.

200/300/400 Electives Courses Credits: 15

Complete five courses in elective classes. Classes can be either FINA or VCD. Usually these are classes outside the Concentration Area.

Senior Project Requirements Credits: 6

Senior Project

The Senior Project is a two-semester course during the senior year. Students must be signed into these classes by the Chair of the Department of Fine Arts. During this year, students' work will be critiqued by at least three faculty. Each student will be asked to partake in discussions of other student's work during the critiques. Students will also be asked to be part of seminars, attend visiting artists' lectures and demonstrations, visit exhibitions, and present and express ideas about their art work to other seniors. Students must also work closely with a full- time department faculty member as an advisor in their Concentration area. Evaluations of senior work will be based on the following criteria:

Body of original and ambitious work

Evidence of depth of thought

Evidence of research

Sufficient technical virtuosity

Ability to explain ideas

Participation in all departmental senior events

Professional attitude

Keeping abreast of new developments in the field as they pertain to your work

B.F.A. Senior Project Documents

Students are required to complete two written documents each semester of the Senior Project year.

- The Senior Projection document should be ready for department faculty by the beginning of their first semester of Senior Project. It should address the ideas they plan on dealing with and developing for the senior year. The quantity of work can be negotiated with the faculty.
- The Self Critique document will be required at the end of each semester as a critical self evaluation of a student's senior project experience. The critique should include ideas about the project and how it helped clarify their artistic direction.

B.F.A. Exhibition

At the end of the second Senior Project semester, the student must exhibit for graduation. The Department of Fine Arts Senior Exhibition will be at the end of the spring semester of each school year. Students can expect to work with the College of Visual and Performing Arts public relations specialist and gallery coordinator on publication materials and arrangements for their senior exhibition.

Total Credits: 123

Recommendations, Requirements, Transfers, and Policies

Recommendations Students should schedule classes within the B.A. program under the guidance of the official departmental advisor.

Residence Requirements For a bachelor's degree, registration in and completion of at least 33 credits of resident course credit at the 200 level or above, including at least 15 credits at the 300 level or above, in courses applicable to the major.

Transfer and Returning Student Credit All studio and art history courses transferred from another institution or former IPFW art programs must be evaluated by appropriate faculty in the Department of Fine Arts program before they may be applied to a major in Fine Arts. See Transfer and Returning Student Credit Review.

Transfer and Returning Student Credit Review Courses in studio art that have been transferred to IPFW from another institution or former IPFW art programs are not counted as part of the Fine Arts major unless they have been reviewed by the Department of Fine Arts faculty. For a review of transferred studio credit, the student should provide the viewer with a portfolio consisting of representative work in each area (e.g. painting, sculpture, etc.) for which the transfer credit is desired. The portfolio should include both studies and finished work and be as encompassing as possible.

Academic Probation/Dismissal Policies
If a student does not meet the university's GPA standard, they will be notified that they have been placed on academic probation and will be asked to make progress towards meeting campus standards. Department of Fine Arts programs have their own academic standards as stated above. If a student is not meeting these standards, they will be notified and placed on departmental academic probation. If a student does not make positive progress towards meeting the academic standards of the department within twelve (12) credit hours of study, they will be subject to dismissal from the Department of Fine Arts program.

French (B.A.)

Program: B.A.
Department of International Language and Culture Studies
College of Arts and Sciences

The student learning outcomes for the degree are as follows:

> Acquire a broad foundation in language, literature, and culture in preparation for graduate studies or for a career where proficiency in a foreign language and international perspectives are important assets;
>
> Achieve the ACTFL intermediate-high level in speaking, demonstrate the ability to recognize and analyze grammatical and usage errors in own and others' writing;
>
> Develop an increased understanding of what it means to belong to a culture and awareness of how culture affects other interconnected issues of identity;
>
> Demonstrate the ability to think critically about these issues and how they shape intercultural communication.

French is the language of many fascinating countries and cultures in Africa, parts of Asia, Europe, and North America. French-speaking countries influence many fields of study, such as the arts, philosophy, politics and world economy, science, and technology. With a major in French and a degree, in particular a B.A., you may continue your education in languages or expand into other fields at a graduate school, or you may pursue a career in business or teaching.

To earn the B.A. with a major in French, you must fulfill the requirements of IPFW (see Part 8) and the College of Arts and Sciences (see Part 4), and satisfactorily complete the requirements of the major, given below.

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations Credits: 9

COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of following Credits: 3

ENG W131 - Elementary Composition I Cr. 3.
ENG W140 - Elementary Composition Honors Cr. 3.

One of following Credits: 3

MA 15300 - Algebra and Trigonometry I Cr. 3.
MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society Credits: 6

LING L103 - Introduction to the Study of Language Cr. 3.

One of following Credits: 3

HIST H232 - The World in the 20th Century Cr. 3.
INTL I200 - Introduction to International Studies: Emerging Global Visions Cr. 3.

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Additional credits in Area IV: 6

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (not in FREN) Credits: 3

See Part 2 General Education Requirements for approved courses

Recommended

ANTH E335 - Ancient Civilizations of Mesoamerica Cr. 3.
ANTH P370 - Ancient Cultures of South America Cr. 3.
LING L360 - Language in Society Cr. 3.
WOST W301 - International Perspectives on Women Cr. 3.

College of Arts and Sciences Requirements

English Writing Credits: 0

(requirement is satisfied by ILCS I300, listed below)

Foreign Language

FREN F111 - Elementary French I Cr. 4.
FREN F112 - Elementary French II Cr. 4.
   or
FREN F113 - Accelerated First Year French Cr. 4.

Additional Foreign Language Requirements

FREN F203 - Second-Year French I Cr. 3.
FREN F204 - Second-Year French II Cr. 3.

Distribution (not in FREN)

Requirements in Arts and Sciences Part C Credits: 9

Cultural Studies

Requirements in Arts and Sciences Part D Credits: 6

Core and Concentration (Major) Courses

Credits in 300-level French literature courses Credits: 6
Credits in 300-level French language courses, excluding F325 Oral French for Teachers Credits: *6–9
Credits in 400-level French and francophone civilization courses (F463 or F464) Credits: 3
Additional credits in 400-level French courses Credits: *9–12
The combined total of 300-level French language courses and 400-level French courses must be at least 18 credits.

FREN F213 - Second-Year French Composition Cr. 3.
(normally taken concurrently with F203–F204)
ILCS I300 - Methods of Research and Criticism Cr. 3.

General Elective Courses

Sufficient additional credits to bring the total to 124.

Total Credits: 124

French with Teacher Certification (B.A.)

Program: B.A. with Teacher Certification
Department of International Language and Culture Studies
College of Arts and Sciences

Liberal Arts Building 267 ~ 260-481-6836 ~ www.ipfw.edu/ilcs

The student lerning outcomes for the degree are as follows:

Acquire a broad foundation in language, literature, culture and a knowledge of current methodologies in foreign language pedagogy;
Achieve the ACTFL intermediate-high level in speaking, demonstrate the ability to recognize and analyze grammatical and usage errors in own and others' writing;
Develop an increased understanding of what it means to belong to a culture and awareness of how culture affects other interconnected issues of identity;
Demonstrate the ability to think critically about these issues and how they shape intercultural communication.

Students pursuing a French major for the B.A. with teacher certification must fulfill the requirements of IPFW (see Part 8) and the College of Arts and Sciences (see Part 4) and satisfactorily complete the requirements of the major, given below.

Prior to your junior year, the School of Education requires that you successfully complete EDUA F300, EDUC W200/M101, and EDUC K201 and the Pre-Professional Skills Test (PPST) before admission to the teacher education program. The PRAXIS II Specialty Area Exam must be completed before or during the student-teaching semester, normally in your senior year.

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations Credits: 9

COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of following Credits: 3

ENG W131 - Elementary Composition I Cr. 3.
ENG W140 - Elementary Composition Honors Cr. 3.

One of following Credits: 3

MA 15300 - Algebra and Trigonometry I Cr. 3.
MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society Credits: 6

LING L103 - Introduction to the Study of Language Cr. 3.

One of following Credits: 3

HIST H232 - The World in the 20th Century Cr. 3.
INTL I200 - Introduction to International Studies: Emerging Global Visions Cr. 3.

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Additional credits in Area IV: 3

One of following Credits: 3

FWAS H201 - Humanities I: The Ancient World Cr. 3.
FWAS H202 - Humanities II: Foundations of the Modern Western World Cr. 3.

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (not in FREN) Credits: 3

See Part 2 General Education Requirements for approved courses

College of Arts and Sciences Requirements (25–29 credits)

English Writing Credits: 0

(requirement is satisfied by ILCS I300, listed below)

Foreign Language (10–14 credits)

FREN F111 - Elementary French I Cr. 4.
FREN F112 - Elementary French II Cr. 4.
   or
FREN F113 - Accelerated First Year French Cr. 4.

Additional Foreign Language Requirements

FREN F203 - Second-Year French I Cr. 3.
FREN F204 - Second-Year French II Cr. 3.

Distribution (not in FREN)

Requirements in Arts and Sciences Part C Credits: 9

Cultural Studies

Requirements in Arts and Sciences Part D Credits: 6

Core and Concentration (Major) Courses

Credits in 300-level French language courses Credits: 6
Credits in 300-level French literature courses Credits: 6
Credits in 400-level French and francophone civilization courses (F463 or F464) Credits: 3
Additional credits in 400-level French courses Credits: 9
FREN F213 - Second-Year French Composition Cr. 3.
   (normally taken concurrently with F203–F204)
FREN F325 - Oral French for Teachers Cr. 3-8.
ILCS I300 - Methods of Research and Criticism Cr. 3.

Professional Education

Prior to being admitted to the teacher education program, you must complete the Initial Requirement courses and pass the PPST.

Initial Requirements

EDUA F300 - Topical Exploration in Education Cr. 1-3.
EDUC K201 - Schools, Society, and Exceptionality Cr. 1-3.
EDUC M101 - Laboratory/Field Experience Cr. 0-3.
EDUC W200 - Using Computers for Education Cr. 1.

Block I

EDUC H340 - Education and American Culture Cr. 2-3.
EDUC K206 - Teaching Methods for Students with Special Needs Cr. 1-3.
EDUC P250 - General Educational Psychology Cr. 1-4.
EDUC M201 - Laboratory/Field Experience Cr. 0-3.

Block II

EDUC P253 - Educational Psychology for Secondary Teachers Cr. 1-4.
EDUC M301 - Laboratory/Field Experience Cr. 0-3.
EDUC M445 - Methods of Teaching Foreign Languages Cr. 3.
EDUC M401 - Laboratory/Field Experience Cr.0-3.
EDUC X401 - Critical Reading in the Content Area Cr. 1-3.

Student Teaching

EDUC M480 - Student Teaching in the Secondary School Cr. 1-16.
   Credits: 12
EDUC M501 - Lab/Field Experience Cr. 0-3.
   Credits: 0

Middle School Certification (Recommended)

EDUC M470 - Practicum Cr. 3-8.
   Credits: 4

General Elective Courses

Sufficient additional credits, if necessary, to bring the total to 124.

Total Credits: 124-130

General Studies (B.G.S.)

Program: B.G.S.
Division of Continuing Studies

Kettler Hall 144 ~ 260-481-6828 ~ www.ipfw.edu/dcs/gsdp

The student learning outcomes for the degree are as follows:

Speak and write precisely, clearly, and persuasively.
Formulate arguments in a variety of contexts.
Assess their own arguments and compare and evaluate them with the arguments of others.
Understand the nature and diversity of individuals, organizations, cultures, and societies.

Demonstrate understanding of scholarly approaches to such abiding questions as the meaning of life, the role of the arts and humanities, social and behavioral sciences, and sciences and mathematics in understanding what being human means, and the limits of knowledge.

Apply their knowledge in written, oral communication, or technical competencies.

Gather, evaluate, select, organize, and synthesize material in order to complete a research or creative project.

Apply the knowledge gained across interdisciplinary boundaries.

General Studies offers a wide variety of personalized degree options to the traditional and nontraditional student. Students may individually tailor their program to combine a substantial core of courses basic to a traditional university education and study in career-related areas. Within the flexible framework of degree requirements, students may design an undergraduate program that can more readily meet their career and personal-development goals than can a traditional major. Students will be encouraged and assisted in developing a unique academic program complementing their individual interests, abilities, and intellectual and practical concerns.

In addition to taking advantage of the wide variety of daytime, evening, and weekend classes at IPFW, students may choose to earn credit toward their degree through correspondence study. Students may also earn credit by examination, and in some cases earn credit for significant, documentable self-acquired competencies when the learning outcomes have been comparable to those of university-level work. Consideration is given to all previously earned college credit from other accredited institutions. The Associate of Arts in General Studies and Bachelor of General Studies programs may also be tailored to the needs of those unable to study on campus during regularly scheduled periods. Both degrees may be completed online.

Both programs include courses in broad categories called required areas of learning (listed below) and elective credit that students may earn in any IPFW program. The required areas of learning provide broad exposure to the humanities, social sciences, and sciences, while the electives permit students to explore areas of interest, receive credit for prior university-level experiential learning, and tailor the degree to their individual needs. In each plan of study, students must demonstrate competency in each of the following areas: written communication (two courses), oral communication, mathematics, computer literacy, and a diversity course.

After students are admitted to a general studies degree program, students will develop a plan of study to meet their objectives. An advisor will provide assistance in this effort. For further information, refer to the current Indiana University School of Continuing Studies *General Studies Degree Bulletin*.

To earn a B.G.S., students must complete the following requirements:

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations Credits: 9

COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

Area V—Creative and Artistic Expression Credits: 3

Area VI—Inquiry and Analysis Credits: 3

Required Areas of Learning

General studies is a university-wide degree program, certified through Indiana University's School of Continuing Studies. The program follows the same curriculum requirements throughout Indiana University.

Arts and Humanities Credits: 0-6

(depending upon course selection for general education)

Afro-American Studies	Foreign Language
Classical Studies	History
Communication	Journalism
Comparative Literature	Music
English (except R150 and W130)	Philosophy
Film	Religion
Fine Arts	Theatre
Folklore	Visual Communication and Design

Science and Mathematics Credits: 3-9

(depending upon course selection for general education)

ANTH B200 and E445 (only)
Astronomy
Biology
Chemistry
Computer Science (includes BUS K211, K212, K213, K214, K215, and K216)
ECON E270 (only)
Entomology
*ETCS 106
Forestry and Natural Resources
GEOG G107, G109, G315 (only)

Geology
Horticulture
Mathematics (except 109, 111, and 113)
Physics
PSY 120, 201, 310, 314, 329, and 416 (only)
SOC S351 (only)
SPEA K300 (only)
Statistics
*required course

Social and Behavior Sciences Credits: 6-12

(depending upon course selection for general education)

Anthropology
Economics
Geography
Linguistics
Political Science
Psychology
Sociology
SPEA J101 (only)
WOST W210 (only)

Required Core and Concentration (Major) Credits: 54

12 credits in each required area of learning, including courses from at least two departments in each area Credits: 36
18 credits in one of the three required areas of learning Credits: 18

General Elective Courses Credits: 66

In consultation with an advisor, you are urged to concentrate electives in related departments (15 credits in arts and sciences are required).

Note

Students must complete at least 20 of these credits after admission to the program. No more than 21 credits in a single arts and sciences department/subject area or 30 credits in a single professional school area may be counted. A minimum of 30 credits must be taken at the 300–400 level. At least 30 credits must be taken within the IU system or as a Purdue student at IPFW. No more than 30 credits toward the BGS may be awarded for successful completion of external exams such as CLEP. Students admitted to the BGS program as of Fall 2008 or subsequent semesters may not apply more than 64 credits from a community college toward the completion of the requirements for the BGS degree.

Total Credits: 120

Geology (B.A.)

Program: B.A.
Department of Geosciences
College of Arts and Sciences

Science Building 230 ~ 260-481-6249 ~ www.geosci.ipfw.edu

The student learning outcomes for the degree are as follows:

Acquisition of a central core of geological knowledge
Ability to review and evaluate geologic research
Ability to synthesize and integrate interconnectedness among geological subdisciplines
Proficiency in ancillary sciences applied to geology
Ability to apply simple mathematical solutions to quantifiable problems
Ability to draw interferences about geological phenomena not encountered in course work
Empowerment to become agents of change

To earn the B.A. with a major in geology, you must fulfill the requirements of IPFW (see Part 8) and the College of Arts and Sciences (see Part 4), and complete required geoscience courses with grades of C or better.

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

COM 11400 - Fundamentals of Speech Communication Cr. 3.
MA 15300 - Algebra and Trigonometry I Cr. 3.
MA 15400 - Algebra and Trigonometry II Cr. 3.

One of following Credits: 3

ENG W131 - Elementary Composition I Cr. 3.
ENG W140 - Elementary Composition Honors Cr. 3.

Area II—Natural and Physical Sciences

CHM 11500 - General Chemistry Cr. 4.

One of the following: Credits: 0

(credits included in Major Courses, below)

AST A100 - The Solar System Cr. 3.
GEOG G107 - Physical Systems of the Environment Cr. 3.
GEOL G100 - General Geology Cr. 3-5.
    With L100
GEOL G103 - Earth Science: Materials and Processes Cr. 3.
GEOL G210 - Oceanography Cr. 3.

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (not in GEOL) Credits: 3

See Part 2 General Education Requirements for approved courses

College of Arts and Sciences Requirements

English Writing

ENG W233 - Intermediate Expository Writing Cr. 3.

Foreign Language

Requirements in Arts and Science Part B Credits: 14

Distribution

One of following Credits: 4-6

Credits in social and behavioral sciences Credits: 3
Credits in humanities Credits: 3
BIOL 11700 - Principles of Ecology and Evolution Cr. 4.
PHYS 13100 - Concepts in Physics I Cr. 3.
PHYS 13200 - Concepts in Physics II Cr. 3.

Cultural Studies

Requirements in Arts and Sciences Part D Credits: 6

Core and Concentration (Major) Courses

GEOG G237 - Cartography and Geographic Information Cr. 3.
GEOL G104 - Earth Science: Evolution of the Earth Cr. 3.
GEOL G211 - Introduction to Paleobiology Cr. 3.
GEOL G221 - Introductory Mineralogy Cr. 3-4.
    Credits: 3
GEOL G222 - Introduction to Petrology Cr. 3-4.
GEOL G323 - Structural Geology Cr. 3-4.
GEOL G334 - Principles of Sedimentology and Stratigraphy Cr. 3-4.

One of following Credits: 3-4

AST A100 - The Solar System Cr. 3.
GEOG G107 - Physical Systems of the Environment Cr. 3.
GEOL G100 - General Geology Cr. 3-5.
GEOL G103 - Earth Science: Materials and Processes Cr. 3.
GEOL G210 - Oceanography Cr. 3.
    All courses require GEOL L100 - General Geology Laboratory Cr. 1-2.
    (with the exception of GEOL G103)

General Elective Courses

Sufficient additional credits to bring the total to 124.

Total Credits: 124

Honors in Geology

Students are encouraged to participate in the departmental honors program. To complete the program, you must maintain a GPA of 3.5 or higher in geology and a cumulative GPA of 3.3 or higher, and must complete at least 1 credit of GEOL G499 Honors Research in Geology leading to a thesis, the results of which must be publicly presented.

Geology (B.S.G.)

Program: B.S.G.
Department of Geosciences
College of Arts and Sciences

Science Building 230 ~ 260-481-6249 ~ www.geosci.ipfw.edu

The student learning outcomes for the degree are as follows:

Acquisition of a central core of geological and environmental knowledge
Ability to review and evaluate geologic and environmental knowledge
Ability to synthesize and integrate interconnectedness among geological and related disciplines
Proficiency in ancillary sciences applied to geology
Ability to apply appropriate mathematical solutions to quantifiable problems
Ability to draw inferences about phenomena not encountered in course work
Ability to solve field problems
Ability to read, write, and give oral presentations of technical papers
Ability to develop and apply multiple working hypotheses to environmental and geological problems
Empowerment for advanced study in graduate school or for employment in technical and non-technical fields,
    possibly as a professional geologist

To earn the B.S.G., you must fulfill the requirements of IPFW (see Part 8) and the College of Arts and Sciences (see Part 4) and complete required courses in geoscience and ancillary subject areas with grades of C or better.

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

COM 11400 - Fundamentals of Speech Communication Cr. 3.
MA 22700 - Calculus for Technology I Cr. 4.
MA 22800 - Calculus for Technology II Cr. 3.

One of following Credits: 3

ENG W131 - Elementary Composition I Cr. 3.
ENG W140 - Elementary Composition Honors Cr. 3.

Area II—Natural and Physical Sciences

Credits included in Core Courses, below

CHM 11500 - General Chemistry Cr. 4.

One of following Credits: 0

AST A100 - The Solar System Cr. 3.
GEOG G107 - Physical Systems of the Environment Cr. 3.
GEOL G100 - General Geology Cr. 3-5.
    With L100
GEOL G103 - Earth Science: Materials and Processes Cr. 3.
GEOL G210 - Oceanography Cr. 3.

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (not in GEOL) Credits: 3

See Part 2 General Education Requirements for approved courses

College of Arts and Sciences Requirements

English Writing

ENG W233 - Intermediate Expository Writing Cr. 3.

Foreign Language

Credits in the first year of a modern foreign language Credits: 8

Core and Concentration (Major) Courses

Credits in a STAT or CS course approved by your advisor Credits: 3
CHM 11500 - General Chemistry Cr. 4.
CHM 11600 - General Chemistry Cr. 4.
GEOL G104 - Earth Science: Evolution of the Earth Cr. 3.
GEOL G211 - Introduction to Paleobiology Cr. 3.
GEOL G221 - Introductory Mineralogy Cr. 3-4.
    Credits: 3
GEOL G222 - Introduction to Petrology Cr. 3-4.
GEOL G319 - Elementary Field Geology Cr. 2.
GEOL G323 - Structural Geology Cr. 3-4.
GEOL G334 - Principles of Sedimentology and Stratigraphy Cr. 3-4.
PHYS 21800 - General Physics Cr. 4.
    and
PHYS 21900 - General Physics II Cr. 4.
    or
PHYS 22000 - General Physics Cr. 4.
    and
PHYS 22100 - General Physics Cr. 4.

One of following Credits: 3-4

AST A100 - The Solar System Cr. 3.
    with GEOL L100 (4 credits)
GEOG G107 - Physical Systems of the Environment Cr. 3.
    with GEOL L100 (4 credits)
GEOL G100 - General Geology Cr. 3-5.
    with L100 (4 credits)
GEOL G103 - Earth Science: Materials and Processes Cr. 3.
GEOL G210 - Oceanography Cr. 3.
    with L100 (4 credits)

Option Requirements

Credits in the Environmental Geology Option or Geology Option Credits: 15–18
    (see below)

General Elective Courses

Sufficient additional credits to bring the total to 124.

Total Credits: 124

Environmental Geology Option

This option will help you prepare for advanced study in environmental geology or for work as a professional geologist in the areas of water supply, waste management, geological hazards, and engineering geology.

12 credits from the following:

Additional credits in 300- or 400-level geology courses Credits: 3
GEOG G315 - Environmental Conservation Cr. 3.
GEOL G300 - Environmental and Urban Geology Cr. 3.
GEOL G406 - Introduction to Geochemistry Cr. 3.
GEOL G415 - Geomorphology Cr. 3-4.
GEOL G451 - Principles of Hydrogeology Cr. 3.

Total Credits: 15

Geology Option

This is the traditional option in geology. It will help you prepare for advanced study in geology or work as a professional geologist.

Option Requirements

Field camp experience (e.g., GEOL G429) Credits: 6–7
Credits in 400-level geology courses Credits: 8
Additional credits in 300- or 400-level geology courses Credits: 3

Total Credits: 17-18

German (B.A.)

Program: B.A.
Department of International Language and Culture Studies
College of Arts and Sciences

Liberal Arts Building 267 ~ 260-481-6836 ~ www.ipfw.edu/ilcs/

The student learning outcomes for the degree are as follows:

Acquire a broad foundation in language, literature, and culture in preparation for graduate studies or for a career where proficiency in a foreign language and international perspectives are important assets;
Achieve the ACTFL intermediate-high level in speaking, demonstrate the ability to recognize and analyze grammatical and usage errors in own and others' writing;
Develop an increased understanding of what it means to belong to a culture and awareness of how culture affects other interconnected issues of identity;
Demonstrate the ability to think critically about these issues and how they shape intercultural communication.

To earn the B.A. with a major in German, you must fulfill the requirements of IPFW (see Part 8) and the College of Arts and Sciences (see Part 4), and satisfactorily complete the requirements of the major, given below:

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

   COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of the following Credits: 3

   ENG W131 - Elementary Composition I Cr. 3.
   ENG W140 - Elementary Composition Honors Cr. 3.

One of the following Credits: 3

   MA 15300 - Algebra and Trigonometry I Cr. 3.
   MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
   STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society

   LING L103 - Introduction to the Study of Language Cr. 3.

One of following Credits: 3

   HIST H232 - The World in the 20th Century Cr. 3.
   INTL I200 - Introduction to International Studies: Emerging Global Visions Cr. 3.

Area IV—Humanistic Thought

See Part 2 General Education Requirements for approved courses

   Additional credits in Area IV Credits: 3

One of the following Credits: 3

   FWAS H201 - Humanities I: The Ancient World Cr. 3.
   FWAS H202 - Humanities II: Foundations of the Modern Western World Cr. 3.

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (not in GER) Credits: 3

College of Arts and Sciences Requirements

English Writing

(requirement is satisfied by ILCS I300, listed below)

Foreign Language

One of the following:

GER G111 - Elementary German I Cr. 4.
GER G112 - Elementary German II Cr. 4.
    or
GER G113 - First-Year German in One Semester Cr. 4.

Additional Foreign Language Requirements

GER G203 - Second-Year German I Cr. 3.
GER G204 - Second-Year German II Cr. 3.

Distribution (not in GER)

Requirements in Arts and Sciences Part C Credits: 9

Cultural Studies

Requirements in Arts and Sciences Part D Credits: 6

Core and Concentration (Major) Courses

Credits in German culture, normally G362, G363, G463, or G464 Credits: 3
Credits in 300-level German literature courses Credits: 3
Additional credits in German at the 300 level Credits: 3
Additional credits in German language skills at the 300 level: Credits: 6
Credits in 400-level German courses (language, literature, and/or culture) Credits: 9
ILCS I300 - Methods of Research and Criticism   Credits: 3

General Elective Courses

Sufficient additional credits to bring the total to 124.

Total Credits: 124

German with Teacher Certification (B.A.)

Program: B.A. with Teacher Certification
Department of International Language and Culture Studies
College of Arts and Sciences

Liberal Arts Building 267 ~ 260-481-6836 ~ www.ipfw.edu/ilcs/

The student learning outcomes for the degree are as follows:

> Acquire a broad foundation in language, literature, culture and a knowledge of current methodologies in foreign language pedagogy;
> Achieve the ACTFL intermediate-high level in speaking, demonstrate the ability to recognize and analyze grammatical and usage errors in own and others' writing;
> Develop an increased understanding of what it means to belong to a culture and awareness of how culture affects other interconnected issues of identity;
> Demonstrate the ability to think critically about these issues and how they shape intercultural communication.

Students pursuing a B.A. in German with teacher certification must fulfill the requirements of IPFW (see Part 8) and the College of Arts and Sciences (see Part 4) and satisfactorily complete the following requirements.

Prior to your junior year, the School of Education requires that you successfully complete EDUA F300, EDUC W200/M101, and EDUC K201 and the Pre-Professional Skills Test (PPST) before admission to the teacher education program. The PRAXIS II Specialty Area Exam must be completed before or during the student teaching semester, normally in your senior year.

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundation

COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of following Credits: 3

ENG W131 - Elementary Composition I Cr. 3.
ENG W140 - Elementary Composition Honors Cr. 3.

One of following Credits: 3

MA 15300 - Algebra and Trigonometry I Cr. 3.
MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society

LING L103 - Introduction to the Study of Language Cr. 3.

One of following Credits: 3

HIST H232 - The World in the 20th Century Cr. 3.
INTL I200 - Introduction to International Studies: Emerging Global Visions Cr. 3.

Area IV—Humanistic Thought

See Part 2 General Education Requirements for approved courses

Additional credits in Area IV Credits: 3

One of following Credits: 3

FWAS H201 - Humanities I: The Ancient World Cr. 3.
FWAS H202 - Humanities II: Foundations of the Modern Western World Cr. 3.

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (not in GER) Credits: 3

See Part 2 General Education Requirements for approved courses

College of Arts and Sciences Requirements

English Writing

ILCS I300 - Methods of Research and Criticism Cr. 3.

Foreign Language

GER G203 - Second-Year German I Cr. 3.
GER G204 - Second-Year German II Cr. 3.

One of following Credits: 4-8

GER G111 - Elementary German I Cr. 4.
GER G112 - Elementary German II Cr. 4.
GER G113 - First-Year German in One Semester Cr. 4.

Distribution (not in GER)

Requirements in Arts and Sciences Part C Credits: 9

Cultural Studies

Requirements in Arts and Sciences Part D Credits: 6

Core and Concentration (Major) Courses

Credits in German culture, normally G362, G363, G463, or G464 Credits: 3
Credits in 300-level German literature courses Credits: 3
Additional German credits at the 300 level Credits: 3
Additional German language skills credits at the 300 level Credits: 6
Credits in 400-level German courses (language, literature, and/or culture) Credits: 9
GER G318 - German Language Skills I Cr. 3-5.
GER G325 - German for Teachers Cr. 3.
ILCS I300 - Methods of Research and Criticism Cr. 3.

Professional Education

Prior to being admitted to the teacher education program, you must complete the Initial Requirement courses and pass the PPST.

Initial Requirements

EDUA F300 - Topical Exploration in Education Cr. 1-3.
    Credits: 2
EDUC K201 - Schools, Society, and Exceptionality Cr. 1-3.
    Credits: 1
EDUC M101 - Laboratory/Field Experience Cr. 0-3.
    Credits: 0
EDUC W200 - Using Computers for Education Cr. 1.

Block I

EDUC H340 - Education and American Culture Cr. 2-3.
    Credits: 3
EDUC K206 - Teaching Methods for Students with Special Needs Cr. 1-3.
    Credits: 3
EDUC P250 - General Educational Psychology Cr. 1-4.
EDUC M201 - Laboratory/Field Experience Cr. 0-3.

Block II

EDUC M445 - Methods of Teaching Foreign Languages Cr. 3.
EDUC M401 - Laboratory/Field Experience Cr.0-3.
EDUC P253 - Educational Psychology for Secondary Teachers Cr. 1-4.
EDUC M301 - Laboratory/Field Experience Cr. 0-3.
EDUC X401 - Critical Reading in the Content Area Cr. 1-3.

Student Teaching

EDUC M480 - Student Teaching in the Secondary School Cr. 1-16.
    Credits: 12

EDUC M501 - Lab/Field Experience Cr. 0-3.
    Credits: 0

Middle School Certification (Recommended)

EDUC M470 - Practicum Cr. 3-8.
    Credits: 4

General Elective Courses

Sufficient additional credits, if necessary, to bring the total to 124.

Total Credits: 124

History (B.A.)

Program: B.A.
Department of History
College of Arts and Sciences

Liberal Arts Building 209 ~ 260-481-6686 ~ www.ipfw.edu/hist

The student learning outcomes for the degree are as follows:

Possess broad knowledge and some specialized understanding of the diverse historical pasts of America, Europe, and the World;

Understand the basic scientific and humanistic methodology of history as an intellectual discipline including the direct experience of evaluating primary sources and secondary literature;

Demonstrate the ability to read, analyze, and write about historic topics;

Recognize historical analyses of human experience as the basic outlook of modern culture; and

Be equipped to continue historical studies throughout life.

To earn the B.A. with a major in history, you must fulfill the requirements of IPFW (see Part 8), the College of Arts and Sciences (see Part 4), and those listed below.

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations Credits: 9

COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of the following Credits: 3

ENG W131 - Elementary Composition I Cr. 3.
ENG W140 - Elementary Composition Honors Cr. 3.

One of the following Credits: 3

MA 15300 - Algebra and Trigonometry I Cr. 3.
MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Additional credits in Area III Credits: 3
HIST H105 - American History I Cr. 3.

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (not in HIST) Credits: 3

See Part 2 General Education Requirements for approved courses

College of Arts and Sciences Requirements

English Writing

HIST H217 - The Nature of History Cr. 3.

Foreign Language

Requirements in Arts and Sciences Part B   Credits: 14

Distribution (not in HIST)

Requirements in Arts and Sciences Part C   Credits: 9

Cultural Studies

Credits in non-Western culture: Cr. 3
HIST H113 - History of Western Civilization I Cr. 0
(credits included in Major Courses, below)

Core and Concentration (Major) Courses

HIST H105 - American History I Cr. 3.
HIST H106 - American History II Cr. 3.
HIST H113 - History of Western Civilization I Cr. 3.
HIST H114 - History of Western Civilization II Cr. 3.
HIST J495 - Proseminar for History Majors Cr. 3.
Credits in upper-level American history Cr. 6.
Credits in upper-level Western European history* Cr. 6.
Credits in upper-level Other World history* Cr. 6.
Additional credits in history (H217 excluded) Cr. 3.
*HIST H232 may not be used to fulfill the Western European or Other World requirements, but may be used for additional credit toward the major or minor.

General Elective Courses

Sufficient additional credits to bring the total to 124.

Total Credits: 124

Honors in History

A student may earn an honors B.A. degree in history by achieving an overall GPA of 3.5 and a philosophy GPA of 3.5 or higher; conducting a two-semester (6 credit) research project; preparing a senior thesis based on the research project; and giving an oral presentation of the thesis research. The senior thesis committee must be established one semester before graduation.

History Honors Degree (B.A.)

Program: B.A. Honors
Department of History
College of Arts and Sciences

Liberal Arts Building 209 ~ 260-481-6686 ~ www.ipfw.edu/hist

The student learning outcomes for the degree are as follows:

Possess broad knowledge and some specialized understanding of the diverse historical pasts of America, Europe, and the World.
Understand the basic scientific and humanistic methodology of history as an intellectual discipline including the direct experience of evaluating primary sources and secondary literature.
Demonstrate the ability to read, analyze, and write about historic topics.
Recognize historical analyses of human experience as the basic outlook of modern culture.
Be equipped to continue historical studies throughout life.

As an entering student, you become eligible for this honors program by scoring above 600 on the SAT I verbal test or the CEEB history achievement test; thereafter, you must have a GPA of 3.25 or higher or be recommended by a member of the department for admission. Admission to the degree program requires that you submit a written petition to the department no later than the end of your junior year.

Completion of the program requires, in addition to fulfillment of the B.A. requirements,

a GPA of 3.3 or higher in history and a cumulative GPA of 3.25 or higher
9 credits of honors courses, including 6 in history
satisfactory completion in HIST K499 of an honors thesis
satisfactory defense of the honors thesis.

Hospitality Management (B.S.)

Program: B.S.
Department of Consumer and Family Sciences
College of Health and Human Services

Neff Hall 330 ~ 260-481-6562 ~ www.ipfw.edu/cfs

The BS - Hospitality Management studies are designed to offer students the opportunity to learn and develop the skills and competencies they will need to become successful leaders and entrepreneurs in one of the world's fastest growing industries.

To apply for the BS Hospitality Management, students must meet IPFW degree seeking requirements and complete the prerequisite courses outlined in the Pre-Hospitality Management (Pre-HM) requirements, earning 30 credits and attain a cumulative GPA of 2.0 or higher.

General Program Requirements:

Successfully complete 124 credits in the prescribed Pre-HM and HM Program.

Attain a cumulative IPFW GPA of 2.0 or above.
Complete the HM degree requirements with a cumulative GPA of 2.20 or higher in HTM, FNN, THTR and
    Language required course work, including any courses taken in COM and OLS as part of the eighteen credit
    hours in Hospitality Mangement elective courses.
Complete all the HM degree requirements within 8 years of first registration into the HM program.
Abide by the rules and regulations specified in the Bulletin, requirements for degrees (see part 8) and the College
    of Health and Human Services (see part 4) in effect at the time of admission. In addition students enrolled in
    the BS hospitality Management are required to follow the CFS student handbook regulations in effect which
    are available on line at: http://www.ipfw.edu/cfs/assets/pdf/Student%20Handbook.pdf

Pre-Hospitality Management (Pre-HM) Requirements:

Students applying for the BS hospitality Management must submit as part of their application, proof of work experience with an HTM Work Experience Portfolio. The purpose of the work experience is for students to be in a position to demonstrate a suitable work ethic and customer care that indicates a potential to work in the hospitality industry. This work experience is non-credit bearing.

Pre-HM courses are mostly prescribed with the exception of some General Education area II and area IV courses. Prescribed Pre-HM courses include all Gen Ed I, III and V areas as well as the HTM 100, Introduction to Hospitality and Tourism Management. Pre-HM required courses are chosen to establish a sound foundation in English language, mathematical skills adapted to business as well as particularly important scientific areas on which HM Major courses build.

Hospitality Management Major, Requirements

To progress from Pre-Hospitality Management (Pre-HM) and gain admission in the Hospitality Management Major, students must: successfully complete 30 credits in the prescribed Pre-HM courses attain a cumulative GPA of 2.00 or higher in these prescribed Pre-HM courses and present the Work Experience Portfolio as described above along with their application. Admission to the HM Major is not limited, applications are reviewed by the department faculty.

Once admitted, students follow a prescribed progression in their second and third year. The fourth year of the program offers students opportunities to choose amongst HM electives and/or special areas of interest and an HR specialization.

To graduate, a student admitted to the HM major must complete the required courses as listed below in the chronological order thus completing all HM level 2 before starting HM level 3 and hence forth completing all HM level 3 before starting HM level 4 courses while also respecting the co- and prerequisites.

Pre-Hospitality Management Requirements

To apply for the Hospitality Management Bachelor of Science program, students must meet IPFW degree seeking requirements and complete the prerequisite courses outlined hereunder earning 30 credits and attain a cumulative GPA of 2.0 or higher in the prescribed Pre-HM courses.

IPFW General Education Requirements Credits: 30

Area I—Linguistic and Numerical Foundations Credits: 9

COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
STAT 12500 - Communicating with Statistics Cr. 3.

Area II - Natural and Physical Sciences - Credits: 6

See Part II General Education Requirements for approved courses - Cr. 3

BIOL 10000 - Introduction to the Biological World Cr. 3.

Area III - The Individual, Culture and Society - Credits: 6

OLS 25200 - Human Relations in Organizations Cr. 3.
PSY 24000 - Introduction to Social Psychology Cr. 3.

Area IV - Humanistic Thought - Credit: 6

See Part II General Education Requirements for Approved Courses - Cr. 3

PHIL 12000 - Critical Thinking Cr. 3.

Area V - Creative and Artistic Expression - Credits: 3

THTR 13400 - Fundamentals of Performance Cr. 3.

Pre - Hospitality Management - Pre-HM Courses

Includes General Education Requirement courses: 1 course from Area 2 and 1 course from Area 4 - Cr. 6

BIOL 10000 - Introduction to the Biological World Cr. 3.
COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
HTM 10000 - Introduction to the Hospitality and Tourism Industry Cr. 1-3.
OLS 25200 - Human Relations in Organizations Cr. 3.
PHIL 12000 - Critical Thinking Cr. 3.
PSY 24000 - Introduction to Social Psychology Cr. 3.
STAT 12500 - Communicating with Statistics Cr. 3.

Hospitality Management Major Required Courses

HM Level 2:

ECON E200 - Fundamentals of Economics Cr. 3.
FNN 20300 - Foods Selection and Preparation Cr. 3.
FNN 20400 - Food, History & Culture Cr. 3.
HTM 18100 - Lodging Management Cr. 3.
BUS A200 - Fundamentals in Accounting Cr. 3.
HTM 19100 - Sanitation and Health in Foodservice, Lodging, and Tourism Cr. 3.
THTR 13400 - Fundamentals of Performance Cr. 3.

One of the following Credits: 4

FREN F111 - Elementary French I Cr. 4.
GER G111 - Elementary German I Cr. 4.
SPAN S111 - Elementary Spanish I Cr. 4.

One of the following credits: 4

FREN F112 - Elementary French II Cr. 4.
GER G112 - Elementary German II Cr. 4.
SPAN S112 - Elementary Spanish II Cr. 4.

HM Level 3:

HTM 31200 may be replaced by OLS 37600

FNN 30400 - Nutrition's Place in Hospitality Cr. 3.
HTM 23100 - Hospitality and Tourism Marketing Cr. 3.
HTM 30200 - Hospitality and Tourism Industry Internship Cr. 1-2.
HTM 31000 - Food and Beverage Operation Management Cr. 3.
HTM 31200 - Human Resources Management for the Service Industries Cr. 3.
HTM 32200 - Hospitality Facilities Management Cr. 3.
HTM 37100 - Introduction to Tourism Cr. 3.

One of the following credits: 3

FREN F203 - Second-Year French I Cr. 3.

GER G203 - Second-Year German I Cr. 3.
SPAN S203 - Second-Year Spanish I Cr. 3.

One of the following credits: 3

FREN F204 - Second-Year French II Cr. 3.
GER G204 - Second-Year German II Cr. 3.
SPAN S204 - Second-Year Spanish II Cr. 3.

HM Level 4:

Two additional courses required for Level 4. Student must see advisor.

HTM 41000 - Dinner Series, Capstone Cr. 3.
HTM 41100 - Hospitality and Tourism Law Cr. 3.
HTM 43000 - Hospitality Strategic Management Cr. 3.
HTM 49100 - Beverage Management Cr. 2.

One of the following credits: 3

FREN F326 - French in the Business World Cr. 3.
GER G315 - Business German Cr. 3.
SPAN S315 - Spanish in the Business World Cr. 2-3.

One more Foreign Language Class to be determined.

Hospitality Management Major Elective Courses

In addition to the prescribed courses the student much complete 18 credit hours in elective hours. The BS Hospitality Management requires a student to either take 9 HM credits from the list hereunder or 3 HM +9 credits in a specialization field as per the list hereunder. The remainder of the electives may be freely chosen within IPFW courses with respect to the rules that apply to these courses.

HTM Electives:

CFS 39900 - Special Issues Cr. 1-3.
FNN 40300 - Advanced Nutrition: Food from Farm to Fork Cr. 3.
HTM 31400 - Franchising Cr. 3.
HTM 31500 - Club Management and Operations Cr. 3.
HTM 34100 - Cost Controls in Foodservice and Lodging Cr. 3.
HTM 38300 - Resort, Cruise, and Entertainment Operations Cr. 3.
HTM 42000 - Event Management Cr. 3.
OLS 37600 - Human Resources Issues Cr. 3.

HR Specialization Electives:

OLS 34200 - Interviewing Strategies in Organizations Cr. 3.
OLS 37800 - Labor Relations Cr. 3.
OLS 46800 - Personnel Law Cr. 3.

OLS 47600 - Compensation Planning and Management Cr. 3.
OLS 47900 - Staffing Organizations Cr. 3.

Organization Communication Specialization:

COM 21200 - Approaches to the Study of Interpersonal Communication Cr. 3.
COM 25000 - Mass Communication and Society Cr. 3.
COM 32000 - Small Group Communication Cr. 3.
COM 32400 - Introduction to Organizational Communication Cr. 3.

Total Credits: 124

Human Services Bachelor of Science (B.S.)

Program: B.S. degree
Department of Human Services
College of Health and Human Services

Neff Hall 130 ~ 260-481-6424 ~ www.ipfw.edu/hs/

Students who complete the bachelor's degree curriculum will:

1. be able to interpret and extrapolate from basic concepts and principles.

2. be able to discuss practicing theories and design treatment plans utilizing the appropriate theory.

3. be able to demonstrate, analyze and evaluate Human Services helping skills.

4. demonstrate an understanding of organizational structure of their internship.

5. use a variety of computer programs necessary in HSRV programs.

6. be able to demonstrate competency in two concentration areas related to Human Services.

7. be able to engage in a service learning project in the community.

8. be able to discuss implications of diversity fir their clinical practice.

9. be able to demonstrate research methods and utilize SPSS to analyze data.

10. think clinically and critically, demonstrating this in professionally-written reports.

11. analyze and judge their own values, predicting how these values will affect their professional experiences and they will differentiate between those values that they

    can put aside and those that they will not alter. Students write a value paper differentiating their values from someone they interview. Students will examine how each

    value was developed and tested.

12. be able to apply ethical standards, personal integrity and professional ethics in a human services setting.

The Bachelor of Science in Human Services is a degree that requires a total of 125 semester credit hours. The program is designed to prepare students to become human service professionals who can meet the needs of clients and communities within a diverse society. Examples of job roles that graduates of the degree would be qualified to fill include group home supervisor, substance abuse prevention educator, case manager, social service agency staff/manager, and psychiatric rehabilitation worker/supervisor, among others.

Call the Human Services office at 260-481-6424 for additional information and to be assigned an advisor.

Admission

To gain entry into this program, you must meet all of the requirements for admission to IPFW and comply with internship agency requirements for internship placements. Students should contact the Department of Human Services at 260-481-6424 for more information and to be assigned an advisor.

Human Services Admission Requirements
(Effective January 1, 2010)

Students are admitted to this degree program as follows:

Students new to IPFW must complete an application for undergraduate admission and meet the criteria for admission to the university. Students who have ever taken courses at IPFW should apply for re-entry to the university if they have not been actively enrolled at IPFW for one year or greater. Contact the Office of Admissions at 260-481-6812.

Students who have completed the requirements for the Associate of Science in Human Services at IPFW, Ivy Tech Community College, or another Human Services program from another accredited institution, and have a grade point average (GPA) of at least 2.0 with no grades of D or F, are enrolled in the program with junior status.

Students who have not completed the requirements for the Associate of Science in Human Services may be admitted to IPFW as a Pre-Human Services student. Pre-Human Services students may combine studies at IPFW and Ivy Tech in order to complete the requirements of the Fort Wayne Ivy Tech Community College A. S. in Human Services and may also work on B. S. courses.

All students will be required to meet the regular IPFW and Purdue University admission standards, as presented in the IPFW Bulletin.
The Bachelor's degree requires a Senior Internship at a nonprofit organization.
Students must comply with agency requirements for internship placements. A live interview is required. The agency may require proof of certain immunizations and/or certification in CPR. Many clinical agencies now require that students provide them with a criminal history check with the Indiana State Police prior to acceptance as an intern and have varying policies regarding what constitutes an acceptable history for placement with their client population.

Anyone with a record of a sex crime against a child may not be placed into a clinical in which there is an actual or potential possibility that they will come into contact with children (IC5-2-12-12). Students who cannot be placed in clinicals with reasonable effort as a result of their criminal histories and subsequently cannot complete the program requirements may be unable to graduate from the program.

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

Must complete the following courses with a grade of C or better.

COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

BIOL 10000 - Introduction to the Biological World Cr. 3.

Area III—The Individual, Culture, and Society Credits: 6

Must complete the following courses with a grade of C- or better.

PSY 12000 - Elementary Psychology Cr. 3.
SOC S161 - Principles of Sociology Cr. 3.

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Philosophy elective Cr. 3

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis Credits: 6

Must complete the following courses with a grade of C- or better.

See Part 2 General Education Requirements for approved courses

Psychology elective Cr. 3.
Sociology elective Cr. 3

Human Services Core Credits: 32

Must complete the following courses with a grade of C- or better.

HSRV 10000 - Introduction to Human Services Cr. 3.
HSRV 10300 - Helping Relationship Techniques Cr. 3.
HSRV 10500 - Basic Interviewing Skills Cr. 3.
HSRV 20000 - Behavioral Therapies Cr. 3.
HSRV 20100 - Clinical in Case Study Method I Cr. 2.
HSRV 21100 - The Dynamics of Group Behavior Cr. 3.

HSRV 25100 - Clinical in Case Study Method II Cr. 2.
HSRV 31500 - Introduction to Theories and Therapies Cr. 3.
HSRV 32000 - Case Methods Cr. 3.
HSRV 33000 - Psychopharmacology for Human Services Cr. 1.
HSRV 40000 - Internship I Cr. 1-4.
    (Fall only)
HSRV 40100 - Internship Seminar I Cr. 1.
    (Fall only)
HSRV 45000 - Internship II Cr. 2-4.
    (Spring only)
HSRV 45100 - Internship Seminar II Cr. 1.
    (Spring only)
    Please see HSRV Student Manual for pre-requisites and co-requisites.

Required supporting courses Credits: 33

ENG W233 - Intermediate Expository Writing Cr. 3.
    (Grade of C or better)
MA 15300 - Algebra and Trigonometry I Cr. 3.
POLS Y103 - Introduction to American Politics Cr. 3.
    (Grade of C- or better for the following courses.)
PSY 35000 - Abnormal Psychology Cr. 3.
SOC S352 - Methods of Social Research Cr. 3.
    (Fall only)
    And
    Two Sociology electives - one 300/400 level Cr. 6.

Choose from the following Credits: 3

COM 30300 - Intercultural Communication Cr. 3.
NUR 30900 - Transcultural Healthcare Cr. 3.

Choose from the following Credits: 3

Course must be completed with a grade of C- or better.

PSY 23500 - Child Psychology Cr. 3.
PSY 24000 - Introduction to Social Psychology Cr. 3.
PSY 36900 - Development Across the Lifespan Cr. 3.
    (Either PSY 235 of PSY 369 may be taken for credit, NOT BOTH)

Choose from the following Credits: 3

Course must be completed with a grade of C- or better.

PSY 31400 - Introduction to Learning Cr. 3.
PSY 32900 - Psychobiology II: Principles of Psychobiological Psychology Cr. 3.
PSY 41600 - Cognitive Psychology Cr. 3.

Human Service Concentration Credits: 24

Student works with advisor to identify a group of courses from human services and related disciplines that support a concentration in such areas as addictions, psychiatric rehabilitation, gerontology, child/adolescent services, activity/recreational therapies, and developmental disabilities. These courses prepare students to graduate with knowledge and skills directly applicable to their chosen area of interest within the human services profession.

Students' must complete 12 credits in concentration Area A and 12 credits in concentration Area B.   See your academic advisor for approval of your chosen concentration areas and for approval of courses under each concentration area.

Concentration Area A (12 CR.)

Students will choose a concentration in one of the following areas: Business and Administration, Communications and Public Relations, Computers and Technology, Divinity, Early childhood Education, Ecology, Ethics, Ethics and Cultural Studies, Homeless, International Studies, Marketing and Fundraising, Medical and Healthcare, Missionary Work, Peace Studies, Political Science, Professional Writing, Public Affairs, Sign Language, Teaching English as a New Language or Women's Studies.

Concentration Area B (12 CR.)

Students will choose a concentration in one of the following areas: Adolescents, Children, Disabled and Special Needs, Diversity, Domestic Violence and Gender Roles, Family, Health and Well Being, Justice System, Leadership and Management, Gerontology, Spanish, or Substance Abuse.

Industrial Engineering Technology (B.S.)

Program: B.S.
Department of Manufacturing and Construction Engineering Technology and Interior Design
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 221 ~ 260-481-4127 ~ www.mcet.ipfw.edu

The student learning outcomes for the degree are as follows:

An appropriate mastery of the knowledge, techniques, skills and modern tools of the appropriate ET program.
- Technical expertise in quality, meteorology, advanced SPC, SQC, TQM, ISO standards, and design of experiments.
- Technical expertise in ergonomics, work methods design, optimization, engineering economy, and cost estimating.
- Technical expertise in facilities layout, production planning and control, queuing theory, modeling, and simulation.
- Technical expertise in CAD, engineering graphics, GD&T, gage capability studies, and measurement uncertainty.
- Technical expertise in materials, manufacturing processes, design for manufacturing and assembly, and CNC machining.

An ability to apply current knowledge and adapt to emerging applications of mathematics, science, engineering and technology.
An ability to conduct, analyze and interpret experiments and apply experimental results to improve processes.
An ability to apply creativity in the design of systems, components or processes.
An ability to function effectively on teams.
An ability to identify, analyze and solve technical problems.
An ability to communicate effectively.
A recognition of the need for, and an ability to engage in lifelong learning.

An ability to understand professional, ethical and social responsibilities.

A knowledge of and respect for diversity, contemporary societal and global issues related to the profession.

A commitment to quality, timeliness, and continuous improvement.

This program prepares graduates with knowledge, technical, analytical, and managerial skills necessary to develop, implement, and improve integrated systems in manufacturing and service industries that include people, materials, equipment, information, and energy. Graduates will be prepared for careers in higher levels of system design, integration, and management. To earn the B.S. with a major in industrial engineering technology, you must fulfill the requirements of IPFW (see Part 8), the College of Engineering, Technology, and Computer Science (see Part 4), and of the A.S., and complete the following credits, earning a grade of C or better in those courses that serve as prerequisites:

IPFW General Education Requirements

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis

ENG W421 - Technical Writing Projects Cr. 1-3.

Required Core and Concentration (Major) Courses

IET 30400 - Advanced Metrology Cr. 3.
IET 35000 - Engineering Economy Cr. 3.
IET 36200 - Technological Optimization Cr. 3.
IET 36900 - Manufacturing Simulation Cr. 3.
IET 40100 - Manufacturing Process Planning Cr. 3.
　　Grade of C or better required
IET 45400 - Statistical Process Control Cr. 3.
IET 48000 - Cost Estimating and Design Cr. 3.
ET 19000 - Statics Cr. 3.
MET 33000 - Introduction to Fluid Power Cr. 3.
MET 34700 - Programming of Automation Systems Cr. 3.

Additional Required Technical Courses

CHM 11100 - General Chemistry Cr. 3.
ECET 21100 - Electrical Machines and Controls Cr. 3.
ECET 36100 - Introduction to PLC and Pneumatic Systems Cr. 4.
MA 22700 - Calculus for Technology I Cr. 4.
IET 47800 - Lean Manufacturing and Design Cr. 3.

Additional Required Support Courses

COM 32300 - Business and Professional Speaking Cr. 3.

Additional Core and Concentration (Major) Electives

Any one course from IET or MET or a course approved by an IET advisor Credits: 3

Total including 64 from A.S. Credits: 129

Information Systems (B.S.)

Program: B.S.
Department of Computer and Electrical Engineering Technology & Information Systems and Technology
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 205 ~ 260-481-6338 ~ www.ceit.ipfw.edu

The student learning outcomes for the degree are as follows:

- An ability to apply knowledge of computing and mathematics appropriate to the discipline.
- An ability to apply knowledge of computing and mathematics appropriate to the discipline.
- An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs.
- An ability to function effectively on teams to accomplish a common goal.
- An understanding of professional, ethical, legal, security and social issues and responsibilities.
- An ability to communicate effectively with a range of audiences.
- An ability to analyze the local and global impact of computing on individuals, organizations, and society.
- Recognition of the need for and an ability to engage in continuing professional development.
- An ability to use current techniques, skills, and tools necessary for computing practice.
- An understanding of processes that support the delivery and management of information systems within a specific application environment.

The Bachelor of Science in Information Systems prepares you for a career as a computer professional as well as for possible graduate study.

The CEIT department also offers the Associate of Science with a major in information systems, a Bachelor of Science with a major in computer engineering technology (CPET) and an Associate and Bachelor of Science with a major in electrical engineering technology. In addition to the degrees, the department offers a minor in electronics, and minor in information systems and certificate programs in computer-controlled systems, electronic communications, power electronics systems, and computer networking.

In addition to satisfying the requirements of IPFW (see Part 8) and the College of Engineering, Technology, and Computer Science (see Part 4), you must complete the courses required for the A.S. with a major in information systems (see above) and the following additional courses. Only courses in your major field for which you have earned a grade of C or better can be applied to the degree or used to satisfy prerequisites. A maximum of 10 credits of D grades (including any from the A.S. program) will be accepted in other courses.

Credits in approved second course in business or economics Credits: 3
Credits in approved advanced communication course Credits: 3
Additional credits in approved electives Credits: 10

IPFW General Education Requirements Credits: 9

Area IV—Humanistic Thought Credits: 3

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses

    CS 30600 - Computers in Society Cr. 3.

Advanced Core Requirements Credits: 21

    IST 34000 - Business Process Management Cr. 3.
    IST 35000 - IT Infrastructure Cr. 3.
    IST 36000 - Enterprise Systems Cr. 3.
    IST 37000 - Systems Analysis and Design Cr. 3.
    IST 44000 - Introduction to Human-Computer Interaction Cr. 3.
    IST 46600 - Information Systems & Technology Strategy, Management & Acquisition Cr. 3.
    IST 46700 - Information Systems Project Management Cr. 3.

Supporting Courses Credits: 18

    MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.

One of the following Credits: 3

    STAT 30100 - Elementary Statistical Methods I Cr. 3.
    STAT 51100 - Statistical Methods Cr. 3.
    ECON E270 - Introduction to Statistical Theory in Economics and Business I Cr. 3.

One of the following approved Business or Economics Credits:3

    BUS A202 - Principles of Managerial Accounting Cr. 3.
    ECON E202 - Introduction to Macroeconomics Cr. 3.

Approved Advanced Communication Course Credits: 3

Any COM or ENG Wxx course with a prerequisite of COM 114 or ENG W131

Two of the following approved Advanced Buisness Elective Credits: 6

BUS F301 - Financial Management Cr. 3.
BUS M301 - Marketing Management in a Competitive Environment Cr. 3.
BUS P301 - Managing Operations in a Competitive Environment Cr. 3.
BUS Z302 - Management of Organizations and People Cr. 3
BUS D300 - International Business Administration Cr. 3.

Approved Concentration Elective Credits: 15

See Computer and Electrical Engineering Technology & Information Systems and Technology department for details

Total Including 61 from A.S. Credits: 124

Interior Design (B.S.)

Program: B.S.
Department of Manufacturing & Construction Engineering Technology and Interior Design
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 221 ~ 260-481-4127 ~ www.mcet.ipfw.edu

The student learning outcomes for the degree are as follows:

Students are able to advance their learning.
   Be able to interact with multiple disciplines
   Have exposure to a variety of business
   Have opportunities for design work experience
Students have the attitudes, traits, and values of professional responsibility, accountability, and effectiveness.
   Have professional ethics and the role of ethics in the practice of interior design.
   Have environmental ethics and the role of sustainability in the practice of interior design.
   Have a global perspective and approach to thinking and problem solving.
   Have critical, analytical, and strategic thinking abilities.
   Be able to have creative thinking (exhibit a variety of ideas, approaches, concepts with originality and elaboration).
   Have the ability to think visually and volumetrically.
   Have professional discipline skills (for example, time management, organizational skills).
   Have active listening skills leading to effective interpretation of requirements .
Students have a foundation in the fundamentals of art and design; theories of design, green design, and human behavior; and discipline-related history.
   Be able to utilize design elements (for example, space, line, mass, shape, texture) and principles (for example, scale, proportion, balance, rhythm, emphasis, harmony, variety).
   Be able to utilize color principles, theories, and systems (for example, additive and subtractive color; color-mixing; hue, value, and intensity; the relationship of light and color).
   Be able to utilize theories of design and design composition.
   Understanding principles of lighting design (for example, color, quality, sources, use).
   Understanding of theories of human behavior in interior environments.
   Understanding of principles and theories of sustainability.
   Understanding of the history of art, architecture, interior and finishes.
Students understand and apply the knowledge, skills, process, and theories of interior design.

Apply 2-dimensional design elements and principles in interior design projects.

Apply 3-dimensional design elements and principles to the development of the spatial envelope (for example, volumes of space, visual continuity and balance, visual passages, interconnecting elements).

Select and apply color in interior design projects.

Have programming skills.

Have competent schematic design, concept development, and problem solving skills.

Have competent design development skills.

Have competent skills in preparing drawings, schedules, and specifications as an integrated system of contract documents, appropriate to project size and scope and sufficiently extensive to show how design solutions and interior construction are related.

Have design development skills.

Students communicate effectively.

Be competent in drafting and lettering, both manual and computer-aided techniques.

Be competent in illustrative sketching.

Be competent in presentation of color, materials, and furnishings (for example, sample boards, collages, mock-ups, digital representations).

Be able to express ideas clearly in oral presentations and critiques.

Be able to communicate clearly in writing (using correct spelling, grammar, and syntax) in specifications, schedules, and contracts and other business-related documents such as project programs, concept statements, reports, research papers, resumes, and correspondence.

Be able to render by any medium, manual or computer-generated, that successfully communicates the design intent.

Be able to communicate 3-dimensional space and form, such as in perspectives, pralines, and models (computer-generated or manual).

Have the ability to apply the metric system to design work.

Be able to communicate through alternative presentation techniques (for example, audio, electronic, film, photography, slides, video).

Students are able to design within the context of building systems. Students are able to use appropriate materials and products.

Understanding that design solutions affect and are impacted by construction system and method, mechanical, electrical, plumbing/HAVC and other systems.

Be able to select and apply materials and products appropriately on the basis of their properties and performance criteria.

Have the knowledge of sources for materials and products.

Understanding of the concept of sustainable building methods and materials.

Have the knowledge of installation methods (for example, carpet, resilient flooring, wall covering).

Understanding material maintenance requirements.

Students are able to apply the laws, codes, regulations, standards, and practices that protect the health, safety, and welfare of the public.

Understanding of the impact of fire and life safety principles on space planning.

Have the ability of appropriate application of codes and regulations, barrier-free design guidelines, ergonomic and human factors data.

Understanding of the impact on health and welfare of indoor air quality, noise and lighting.

Demonstrate understanding of universal design concepts and principles.

Students have a foundation in business and professional practice.

Understanding of project management practices.

Have the knowledge of certification, licensing, and registration requirements and professional design organizations.

Understanding of basic business computer applications (for example, word processing, spreadsheets).

Have the knowledge of business processes (for example, marketing, strategic planning, and accounting procedures).

This program prepares graduates to work as interior design professionals providing creative and project management services for a variety of clients including homeowners, business owners, institutions, manufacturers, and those planning special events. This program will be open to those who have completed an associate degree in interior design. Program elective courses allow students to develop a specialty area in theatre design or commercial equipment and kitchen design. Through the three-course senior design requirement, students will graduate with a specialty in one of the following areas: residential design, special populations - aging, healthcare design, education design, hotel design, restaurant design, or corrections design.

To earn the B.S. with a major in interior design, you must satisfy the requirements of IPFW (see Part 8), the College of Engineering, Technology, and Computer Science (see Part 4), and the A.S. degree program. You must earn a grade of C or better in each required INTR course, and complete the requirements listed below:

IPFW General Education Requirements

Area II—Natural and Physical Sciences Credits: 3

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society Credits: 3

SOC S161 - Principles of Sociology Cr. 3.

Area IV—Humanistic Thought Credits: 3

See Part 2 General Education Requirements for approved courses

Area V—Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses

Core and Concentration (Major) Courses (36 credits)

Interior Design Electives Credits: 6
(department-approved courses)

Interdisciplinary Design Topic Credits: 3
(department-approved courses)

Leadership/Communication Elective Credits: 3
(department-approved courses)

INTR 30600 - Interior and Furniture Styles I Cr. 3.
INTR 30700 - Interior and Furniture Styles II Cr. 3.
INTR 30800 - Interior Design II Cr. 3.
INTR 30900 - Interior Design III Cr. 3.

INTR 40000 - Interior Design Studio I Cr. 3
INTR 40200 - Professional Practice Cr. 3.
INTR 40400 - Interior Design Practicum Cr. 3.

Supporting Courses

ENG W232 - Introduction to Business Writing Cr. 3.
OLS 34200 - Interviewing Strategies in Organizations Cr. 3.
VCD P476 - Three-Dimensional Computer Modeling Cr. 3

Total Credits: 60

Interpersonal and Organizational Communication (B.A.)

Program: B.A.
Department of Communication
College of Arts and Sciences

Neff Hall 230 ~ 260-481-6825 ~ www.ipfw.edu/comm/

The student learning outcomes for the degree are as follows:

Be able to articulate the historical traditions of the discipline.
Be aware of and skillful use in the use of new technologies relevant to the major.
Be able to explain communication concepts and theories relevant to the major.
Be able to explain, evaluate and apply the processes involved in productive conflict in the contexts (interpersonal, small group, organizational, mediated, public) relevant to the major.
Demonstrate awareness of diverse perspectives.
Be a competent reader, speaker, writer and listener.
Evaluate interpersonal and group interactions.
Communicate competently (effectively, appropriately, ethically) interpersonally and/or in groups.

This program helps you understand human communication and develop skill and sensitivity in speaking, listening, and participating in varied communication situations. Courses focus on theory and practice in communication tasks ranging from interviewing to addressing large audiences. The degree program helps you prepare for a career in government, sales, public relations, law, public and social service, personnel, or business and industrial communication.

The Department of Communication offers related bachelor's degree programs in media and public communication and a minor in media production for those students who want more courses in practical skills.

To earn the B.A. with a major in interpersonal and organizational communication, you must fulfill the requirements of IPFW (see Part 8), the College of Arts and Sciences (see Part 4), and the Department of Communication as listed below. You also must earn a minor in an appropriate discipline. Two courses in a major offered in the Department of Communication can also be counted in the required minor. If the minor is selected from an Arts and Sciences department, the courses may be used to satisfy distribution requirements in the College of Arts and Sciences.

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundation

COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of following Credits: 3

ENG W131 - Elementary Composition I Cr. 3.
ENG W140 - Elementary Composition Honors Cr. 3.

One of following Credits: 3

MA 15300 - Algebra and Trigonometry I Cr. 3.
MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society

See Part 2 General Education Requirements for approved courses

Additional credits (Not in COM) in Area III Credits: 3
COM 25000 - Mass Communication and Society Cr. 3.
Credits: 0
(credits included in Major Courses, below)

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses (not in COM)

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses (not in COM)

College of Arts and Sciences Requirements

English Writing

ENG W233 - Intermediate Expository Writing Cr. 3.
(or other approved writing course)

Foreign Language

Requirements in Arts and Sciences Part B Credits: 14

Distribution (not in COM)

Requirements in Arts and Sciences Part C Credits: 9

Cultural Studies

Requirements in Arts and Sciences Part D Credits: 6

Core and Concentration (Major) Courses

2.0 required in all courses in the major.

COM 12000 - Introduction to Communication Technology and Communication Fields Cr. 1.
COM 21200 - Approaches to the Study of Interpersonal Communication Cr. 3.
COM 25000 - Mass Communication and Society Cr. 3.
COM 30000 - Introduction to Communication Research Methods Cr. 3.
COM 30800 - Applied Communication Cr. 1.
COM 31800 - Principles of Persuasion Cr. 3.
COM 32000 - Small Group Communication Cr. 3.
COM 32400 - Introduction to Organizational Communication Cr. 3.
COM 48000 - Senior Seminar in Communication Cr. 1.

Credits from among the following: 9

COM 30300 - Intercultural Communication Cr. 3.
COM 31000 - Family Communication Cr. 3.
COM 32500 - Interviewing: Principles and Practice Cr. 3.
COM 41000 - Gender Roles and Communication Cr. 3.
COM 47100 - Communicating Peace Cr. 3.
COM 49100 - Special Topics in Communication Cr. 1-3.

Credits from among the following: 3

COM 50700 - Introduction to Semiotics Cr. 3.
COM 50800 - Nonverbal Communication in Human Interaction Cr. 3.
COM 51200 - Theories of Interpersonal Communication Cr. 3.
COM 51600 - Analysis of Persuasive Messages Cr. 3.
COM 51800 - Theories of Persuasion Cr. 3.
COM 52000 - Small Group Communication Cr. 3.
COM 52300 - Communication in Personal Relationships Cr. 3.
COM 52500 - Advanced Interviewing Cr. 3.
COM 57400 - Organizational Communication Cr. 3.

Minor and Elective Courses

Credits in approved minor (with grades of C or higher) Credits: 12–21
Sufficient additional credits to bring the total to 124.

Total Credits: 124

Labor Studies (B.S.)

Division of Labor Studies
Program Offered: B.S.L.S.

Kettler Hall G28 ~ 260-481-6831 ~ www.labor.iu.edu

The student learning outcomes for the degree are not available for this degree, contact the program office.

To earn the Bachelor of Science in Labor Studies, you must fulfill the requirements of IPFW (see Part 8) and successfully complete the following courses.

Program Requirements

Credits from the Labor Studies Core Credits: 15

Additional Credits in Labor Studies Courses Credits: 27

Required Areas of Learning

Labor Studies is a university-wide degree program, certified through Indiana University's School of Social Work. The program follows the same curriculum requirements throughout Indiana University.

Arts and Humanities (12 Credits)

- Afro-American Studies
- Classical Studies
- Communication
- Comparative Literature
- English (except R150 and W130)
- Film
- Fine Arts
- Folklore
- Foreign Language
- History
- Journalism
- Music
- Philosophy
- Religion
- Theatre
- Visual Communication and Design

Science and Mathematics (15 Credits)

Credits in Computer Science required Credits: 3

Credits from at least two different subjects from the courses listed Credits: 12

Astronomy
Biology
Chemistry
Computer Science (includes BUS K211, K212, K213, K215, and K216)
Entomology
Forestry and Natural Resources
Geology
Hortidulture
Mathematics (except 109, 111, and 113)
Physics
Statistics
ANTH B200 - Bioanthropology Cr. 3.
ANTH E445 - Medical Anthropology Cr. 3.
GEOG G107 - Physical Systems of the Environment Cr. 3.
GEOG G109 - Weather and Climate Cr. 3.
GEOG G315 - Environmental Conservation Cr. 3.
ECON E270 - Introduction to Statistical Theory in Economics and Business I Cr. 3.
PSY 12000 - Elementary Psychology Cr. 3.
PSY 20100 - Introduction to Statistics in Psychology Cr. 3.
PSY 31000 - Sensory and Perceptual Processes Cr. 3.
PSY 31400 - Introduction to Learning Cr. 3.
PSY 32900 - Psychobiology II: Principles of Psychobiological Psychology Cr. 3.
PSY 41600 - Cognitive Psychology Cr. 3.

Social and Behavioral Sciences Area of Learning Credits: 12

Credits in economics is required (ECON E200 or E201 recommended), L230 meets requirement.
Credits from at least two different subjects below Credits: 9

Anthropology
Economics
Geography
Linguistics
Psychology
SPEA J101 - The American Criminal Justice System Cr. 3.
WOST W210 - Introduction to Women's Studies Cr. 3.

Additional Credits from One Area of Learning Credits: 12

Electives Credits: 27

Note

You must earn a minimum of 20 credits after admission to labor studies and may apply toward the degree no more than 21 credits in a single subject other than labor studies. At least 30 of your credits must be in 300/400-level courses, including at least 12 credits in labor studies courses. You must complete at least 24 credits while enrolled as an IU student.

Total Credits: 120

Mathematics (B.S.)

Program Offered: B.S.
Department of Mathematical Sciences
College of Arts and Sciences

Kettler Hall 200 ~ 260-481-6821 ~ www.ipfw.edu/math

The student learning outcomes for the degree are as follows:

Students who complete the undergraduate mathematics major should be able to reason mathematically and should be good problem solvers. Students should understand the role mathematics has played in solving important problems in a variety of disciplines, e.g. physics, engineering, and business.

In addition to 1. above, students who complete the Mathematics option should understand the fundamental concepts in algebra and analysis. They should understand the value of mathematical proofs and should be able to do simple proofs.

In addition to 1. above, students who complete the Actuarial Science option should have had sufficient preparation in calculus, linear algebra, probability, and statistics to pass the preliminary Actuarial Science examinations.

In addition to 1. above, students who complete the Mathematics Teaching option should have mastered the fundamental concepts necessary to obtain certification to teach mathematics in the secondary schools.

Programs leading to the Bachelor of Science help you prepare for employment in business and industry, teaching in secondary schools, or study for advanced degrees. As a mathematics major you choose one of six options: actuarial science, business, computing, mathematics, mathematics teaching, or statistics.

To earn a B.S. with a major in mathematics, you must satisfy the requirements of IPFW (see Part 8), the College of Arts and Sciences (see Part 4), and the Department of Mathematical Sciences. Required course work appears below.

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

MA The quantitative-reasoning requirement is satisfied by mathematics courses below. Credits: 0
COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of the following Credits: 3

ENG W131 - Elementary Composition I Cr. 3.
ENG W140 - Elementary Composition Honors Cr. 3.

Area II—Natural and Physical Sciences

See Part 2 General Education Requirements for approved courses

Includes two laboratory courses *(The science courses must be selected from a list approved by the department.)*
Credits: 11

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (not in MA) Credits: 3

See Part 2 General Education Requirements for approved courses

College of Arts and Sciences Requirements

English Writing

ENG W233 - Intermediate Expository Writing Cr. 3.
    (or other approved writing course)

Foreign Language

Requirements in Arts and Sciences Part B Credits: 8

Core and Concentration (Major) Courses

Of the mathematics courses numbered below 261, only 165, 166, and 175 apply toward the degree; statistics courses must be numbered 490 or higher to be counted. You must have a grade-point average of 2.0 or better with at most one passing grade less than 1.5 in courses used to fulfill the major requirements.

CS 16000 - Introduction to Computer Science I Cr. 4.
MA 16500 - Analytic Geometry and Calculus I Cr. 4.
    and
MA 16600 - Analytic Geometry and Calculus II Cr. 4.
MA 26300 - Multivariate and Vector Calculus Cr. 4.
MA 35100 - Elementary Linear Algebra Cr. 3.

Choose one of the following:

MA 17500 - Introductory Discrete Mathematics Cr. 3.
MA 27500 - Intermediate Discrete Math Cr. 3.

Option Courses (see below) Credits: 46–56

General Elective Courses

Sufficient additional credits, if necessary, to bring the total to 124

Total Credits: 124

Actuarial Science Option

This option, designed in consultation with professionals from the insurance industry, includes courses that help you prepare for a variety of positions in that field. In particular, it helps you prepare for the first of the series of examinations by the Society of Actuaries. Additional information is available from the department.

Credits in three electives selected from a list of courses approved by the department Credits: 9
Credits in electives (two additional finance courses, BUS F302 and F420 highly recommended) Credits: 13-16
BUS A201 - Principles of Financial Accounting Cr. 3.
BUS A202 - Principles of Managerial Accounting Cr. 3.
BUS F301 - Financial Management Cr. 3.
    (before enrolling in F301, you must complete the following with grades of C or better: BUS A201-A202, CS 160, ECON E201-E202, MA 165, and STAT 511)
ECON E201 - Introduction to Microeconomics Cr. 3.
ECON E202 - Introduction to Macroeconomics Cr. 3.
STAT 51100 - Statistical Methods Cr. 3.
STAT 51200 - Applied Regression Analysis Cr. 3.
STAT 51600 - Basic Probability and Applications Cr. 3.
STAT 51700 - Statistical Inference Cr. 3.

Business Option

This option is designed for students who plan to pursue a career in business or industry. In addition to obtaining useful mathematics and statistics tools, the student who completes this option will also receive a minor in business.

Option Specific Courses Credits: 21

Credits in courses selected from a departmentally approved list (MA 363, 417/418, 441, 453, 511, 525, STAT 514, 517) Credits: 6
MA 30500 - Foundations of Higher Mathematics Cr. 3.
MA 31400 - Introduction to Mathematical Modeling Cr. 3.
STAT 51100 - Statistical Methods Cr. 3.
STAT 51200 - Applied Regression Analysis Cr. 3.
STAT 51600 - Basic Probability and Applications Cr. 3.

Business Minor Credits: 22

BUS A201 - Principles of Financial Accounting Cr. 3.
BUS A202 - Principles of Managerial Accounting Cr. 3.
BUS K211 - Spreadsheets for Business Cr. 1.
BUS K212 - Introduction to Database Management Cr. 1.
BUS K213 - Internet Literacy for Business Cr. 1.
BUS L200 - Elements of Business Law Cr. 3.

BUS W204 - Social, Legal, and Ethical Implications of Business Decisions Cr. 3.
ECON E201 - Introduction to Microeconomics Cr. 3.
    (counted as a general education course in Area III)
ECON E202 - Introduction to Macroeconomics Cr. 3.

Credits in two courses selected from the following list Credits: 6

BUS D300 - International Business Administration Cr. 3.
BUS F301 - Financial Management Cr. 3.
BUS M301 - Marketing Management in a Competitive Environment Cr. 3.
BUS P301 - Managing Operations in a Competitive Environment Cr. 3.
BUS Z302 - Management of Organizations and People Cr. 3

General elective courses Credits: 10–13

Total Credits: 53-56

Computing Option

This option helps you prepare for computer-related careers for which a strong mathematical background is advantageous. The student who completes this option will also receive a minor in computer science.

Option Specific Courses Credits: 15

MA 30500 - Foundations of Higher Mathematics Cr. 3.

One of the following Credits: 3

STAT 51100 - Statistical Methods Cr. 3.
STAT 51600 - Basic Probability and Applications Cr. 3.

One of the following Credits: 3

MA 44100 - Real Analysis Cr. 3.
MA 45300 - Elements of Algebra Cr. 3.
MA 51100 - Linear Algebra with Applications Cr. 3.
MA 55600 - Introduction to the Theory of Numbers Cr. 3.
MA 57500 - Graph Theory Cr. 3.

Two of the following Credits: 6

MA 441, 453, 511, 556, 575, STAT 511, or STAT 516 if not taken to satisfy above requirements.
MA 31400 - Introduction to Mathematical Modeling Cr. 3.
MA 36300 - Differential Equations Cr. 3.
MA 41700 - Mathematical Programming Cr. 3.
STAT 51200 - Applied Regression Analysis Cr. 3.
STAT 51700 - Statistical Inference Cr. 3.

Computer Science Minor Credits: 22

CS 16100 - Introduction to Computer Science II Cr. 4.
CS 26000 - Data Structures Cr. 3.
CS 33100 - Introduction to C++ and Object-Oriented Programming Cr. 3.

Two of the following Credits: 6

Select two courses from a departmentally approved list Credits: 6
Credits in electives: 16–19
CS 38400 - Numerical Analysis Cr. 3.
CS 48600 - Analysis of Algorithms Cr. 3.
CS 48800 - Theory of Computation Cr. 3.
CS 54300 - Introduction to Simulation and Modeling of Computer Systems Cr. 3.
CS 57200 - Heuristic Problem Solving Cr. 3.

Total Credits: 53-56

Mathematics Option

This option helps you prepare for graduate study in the mathematical sciences or for work in fields where a strong mathematical background is required.

Program Requirements

MA 30500 - Foundations of Higher Mathematics Cr. 3.
MA 36300 - Differential Equations Cr. 3.
MA 44100 - Real Analysis Cr. 3.
MA 45300 - Elements of Algebra Cr. 3.

One of the following Credits: 3

Credits in courses selected from a departmentally approved list Credits: 6
Credits in electives: 31–34
STAT 51100 - Statistical Methods Cr. 3.
STAT 51600 - Basic Probability and Applications Cr. 3.

Total Credits: 52-55

Mathematics Teaching Option

This option provides the mathematical preparation necessary for teaching secondary-school mathematics in Indiana. You are encouraged to choose and complete a teaching minor.

Prior to your junior year, you must successfully complete the Pre-Professional Skills Test (PPST) before admission to the teacher education program. The Praxis II Specialty Area Exam must be completed before or during the student-teaching semester, normally in your senior year.

Information on additional requirements for teacher certification is available in the department office.

Program Requirements

MA 30500 - Foundations of Higher Mathematics Cr. 3.
MA 45300 - Elements of Algebra Cr. 3.
MA 56000 - Fundamental Concepts of Geometry Cr. 3.

One of the following Credits: 3

Credits in courses selected from a departmentally approved list Credits: 6
Credits in electives: 34–37
STAT 51100 - Statistical Methods Cr. 3.
STAT 51600 - Basic Probability and Applications Cr. 3.

Total Credits: 52–55

Statistics Option

This option helps you prepare for careers in business and industry and emphasizes the statistical methods used in decision making. It also provides entry-level preparation for an actuarial career.

Program Requirements

Credits in courses selected from a departmentally approved list Credits: 6
Credits in electives: 31–34
STAT 51100 - Statistical Methods Cr. 3.
STAT 51200 - Applied Regression Analysis Cr. 3.
STAT 51400 - Design of Experiments Cr. 3.
STAT 51600 - Basic Probability and Applications Cr. 3.
STAT 51700 - Statistical Inference Cr. 3.

Note

The research certificate is described under Arts and Sciences in Part 3 of this Bulletin.

Total Credits: 52-55

Mathematics Teaching (B.S.)

Program: B.S.
Department of Mathematical Sciences
College of Arts and Sciences

Kettler Hall 200 ~ 260-481-6821 ~ www.ipfw.edu/math

The student learning outcomes for the degree are as follows:

> Students who complete the undergraduate Mathematics Teaching major should be able to reason mathematically and should be good problem solvers. Students should understand the role mathematics has played in solving important problems in a variety of disciplines, e.g., physics, engineering, and business.
>
> Students who complete the Mathematics Teaching major should have mastered the fundamental concepts necessary to obtain certification to teach mathematics in the secondary schools.

The B.S. program provides the mathematical preparation necessary for teaching secondary-school mathematics in Indiana and is designed to meet standards for teacher certification. Information on additional requirements for teacher certification is available in the department office. You are encouraged to choose and complete a teaching minor.

To earn a B.S. with a major in mathematics teaching, you must satisfy the requirements of IPFW (see Part 8), the College of Arts and Sciences (see Part 4), and the Department of Mathematical Sciences. Required course work appears below. (Note that you are not required to include foreign-language study.)

You should work closely with your academic advisor when choosing free electives and courses to meet the IPFW general-education requirements so as to ensure completion of the certification requirements set by the Indiana Professional Standards Board for teacher certification. Full information about teacher certification is available from the School of Education. To be certified, you must have a GPA of 2.00 or higher in the College of Arts and Sciences' general-education distribution areas of humanities and social and behavioral sciences. Additionally, you must have a GPA of 2.50 or higher in your teaching major of mathematical sciences and the professional education courses listed below and an overall GPA of 2.5 or higher. Each professional education course must be completed with a grade of C or better.

Prior to your junior year, the School of Education requires that you successfully complete EDUA F300, EDUC W200/M101, and EDUC K201 and the Pre-Professional Skills Test (PPST) before admission to the teacher education program. The PRAXIS II Specialty Area Exam must be completed before or during the student-teaching semester, normally in your senior year.

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

MA - The quantitative-reasoning requirement is satisfied by mathematics courses below. Credits: 0

COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of the following Credits: 3

ENG W131 - Elementary Composition I Cr. 3.
ENG W140 - Elementary Composition Honors Cr. 3.

Area II—Natural and Physical Sciences Credits: 11

See Part 2 General Education Requirements for approved courses

Includes two laboratory courses. *(Science courses must be selected from list approved by the department.)*

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (not in MA) Credits: 3

See Part 2 General Education Requirements for approved courses

College of Arts and Sciences Requirements

English Writing

ENG W233 - Intermediate Expository Writing Cr. 3.

Core and Concentration (Major) Courses

Of the mathematics courses numbered below 261, only 165, 166, and 175 apply toward the degree; statistics courses must be numbered 490 or higher to be counted. You must have a grade-point average of 2.0 or better with at most one passing grade less than 1.5 in courses used to fulfill the mathematics concentration.

Credits in courses selected from a departmentally approved list Credits: 6

CS 11400 - Introduction to Visual Basic Cr. 3.
    or
CS 16000 - Introduction to Computer Science I Cr. 4.
MA 16500 - Analytic Geometry and Calculus I Cr. 4.
MA 16600 - Analytic Geometry and Calculus II Cr. 4.
MA 17500 - Introductory Discrete Mathematics Cr. 3.
MA 26300 - Multivariate and Vector Calculus Cr. 4.
MA 30500 - Foundations of Higher Mathematics Cr. 3.
MA 35100 - Elementary Linear Algebra Cr. 3.
MA 45300 - Elements of Algebra Cr. 3.
MA 56000 - Fundamental Concepts of Geometry Cr. 3.

One of the following: Credits: 3

STAT 51100 - Statistical Methods Cr. 3.
STAT 51600 - Basic Probability and Applications Cr. 3.

Professional Education

Prior to being admitted to the teacher education program, you must complete the Initial Requirement courses and pass the PPST.

Initial Requirements

EDUA F300 - Topical Exploration in Education Cr. 1-3.
EDUC K201 - Schools, Society, and Exceptionality Cr. 1-3.
EDUC M101 - Laboratory/Field Experience Cr. 0-3.
EDUC W200 - Using Computers for Education Cr. 1.

Block I

EDUC H340 - Education and American Culture Cr. 2-3.
EDUC K206 - Teaching Methods for Students with Special Needs Cr. 1-3.
EDUC M201 - Laboratory/Field Experience Cr. 0-3.
EDUC P250 - General Educational Psychology Cr. 1-4.

Block II

EDUC M301 - Laboratory/Field Experience Cr. 0-3.
EDUC P253 - Educational Psychology for Secondary Teachers Cr. 1-4.
EDUC X401 - Critical Reading in the Content Area Cr. 1-3.
EDUC M448 - Methods of Teaching High School Mathematics Cr. 2-4.

Student Teaching

EDUC M480 - Student Teaching in the Secondary School Cr. 1-16.
  Credits: 12
EDUC M501 - Lab/Field Experience Cr. 0-3.
  Credits: 0

Middle School Certification (Recommended)

EDUC M470 - Practicum Cr. 3-8.
  Credits: 4

General Elective Courses

Sufficient additional credits to bring the total to 124. Some may be restricted depending on choices for general education requirements. You are encouraged to acquire a teaching minor (see School of Education for information).

Total Credits: 124

Mechanical Engineering (B.S.M.E.)

Program: B.S.M.E.
Department of Engineering
College of Engineering, Technology, and Computer Science

The student learning outcomes for the electrical degree are as follows:

Graduates will demonstrate basic knowledge in chemistry, mathematics, physics, and engineering

Graduates will demonstrate the ability to identify, formulate, and solve mechanical engineering problems

Graduates will demonstrate the ability to design and conduct experiments, interpret and analyze data, and report results

Graduates will demonstrate the ability to design a mechanical system, component, or process that meets desired specifications and requirements

Graduates will demonstrate the ability to function on engineering and science laboratory teams as well as on multidisciplinary design teams

Graduates will use modern engineering software tools and equipment to analyze mechanical engineering problems

Graduates will demonstrate an understanding of the professional and ethical responsibility

Graduates will be able to communicate effectively in both verbal and written forms

Graduates will have the confidence for self education and the ability for lifelong learning. They will have a broad education to understand the impact of engineering on society and demonstrate awareness of contemporary issues

Mechanical engineers deal with the design, analysis, testing, production, and utilization of all types of mechanical equipment. They are also involved in solving problems brought about by ever increasing demands from a growing world population. For example, mechanical engineers are developing technologies related to alternate energy systems, vehicles for efficient, safe, environmentally-friendly transportation, and robotic devices to perform delicate operations. They design medical implants and aids such as stents and artificial knees. IPFW offers state of-the-art education in all areas of mechanical engineering such as thermal sciences, mechanics, dynamic systems, and controls. In addition to traditional classes, our curriculum includes an innovative set of common first-year courses, integrated design experiences, hands-on laboratories, and a two-semester capstone project in which students design, build, and test a device as part of a team.

To earn the B.S.M.E. at IPFW, you must satisfy the requirements of IPFW (see Part 8) and the College of Engineering, Technology, and Computer Science (see Part 4); you must also complete the following courses:

IPFW General Education Requirements Credits: 36

Area I—Linguistic and Numerical Foundations Credits: 10

COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
MA 16500 - Analytic Geometry and Calculus I Cr. 4.

Area II—Natural and Physical Sciences Credits: 9

CHM 11500 - General Chemistry Cr. 4.
PHYS 15200 - Mechanics Cr. 5.

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

with the exception of IET 105
ECON E201 - Introduction to Microeconomics Cr. 3.

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 2

ENGR 12000 - Graphical Communications and Spatial Analysis Cr. 2.

Area VI—Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses

with the exception of MA 314, PHYS 325, and STAT 340.

Freshman Engineering Credits: 6

ENGR 10100 - Introduction to Engineering Cr. 1.
ENGR 12100 - Computer Tools for Engineers Cr. 2.
ENGR 19900 - Introduction to Engineering Design Cr. 3.

Core and Concentration (Major) Courses Credits: 50

ENGR 22100 - C and C++ Programming for Engineers Cr. 2.
ME 16000 - Solid Modeling Cr. 2.
ME 20000 - Thermodynamics I Cr. 3.
ME 25000 - Statics Cr. 3.
ME 25100 - Dynamics Cr. 3.
ME 25200 - Strength of Materials Cr. 3.
ME 29300 - Measurements and Instrumentation Cr. 2.
ME 30100 - Thermodynamics II Cr. 3.
ME 30300 - Material Science and Engineering Cr. 2.
ME 30400 - Mechanics and Materials Laboratory Cr. 1.
ME 31800 - Fluid Mechanics Cr. 3.
ME 31900 - Fluid Mechanics Laboratory Cr. 1.
ME 32100 - Heat Transfer Cr. 3.
ME 33100 - System Dynamics Cr. 3.
ME 33300 - Automatic Control Systems Cr. 3.
ME 32200 - Heat Transfer Laboratory Cr. 1.
ME 36100 - Kinematics and Dynamics of Machinery Cr. 3.
ME 36900 - Design of Machine Elements Cr. 3.
ME 48700 - Mechanical Engineering Design I Cr. 3.
ME 48800 - Mechanical Engineering Design II Cr. 3.

Required Electrical and Computer Engineering Course Credits: 3

ECE 20100 - Linear Circuit Analysis I Cr. 3.

Mathematics and Science Requirements Credits: 19

MA 16600 - Analytic Geometry and Calculus II Cr. 4.
MA 26100 - Multivariate Calculus Cr. 4.
MA 35100 - Elementary Linear Algebra Cr. 3.
MA 36300 - Differential Equations Cr. 3.
PHYS 25100 - Heat, Electricity, and Optics Cr. 5.

Technical Elective Courses Credits: 12

Students must select at least three courses from Group 1.

Group 1

ME 42100 - Heating and Air Conditioning I Cr. 3.
ME 42400 - Design and Optimization of Thermal Systems Cr. 3.
ME 42500 - Intermediate Heat Transfer: Theory and Applications Cr. 3.
ME 45400 - Intermediate Dynamics with Computer Applications Cr. 3.
ME 47100 - Vibration Analysis Cr. 3.
ME 48000 - Finite Element Analysis Cr. 3.
ME 50500 - Intermediate Heat Transfer Cr. 3.
ME 50900 - Intermediate Fluid Mechanics Cr. 3.
ME 56200 - Advanced Dynamics Cr. 3.
ME 56300 - Mechanical Vibrations Cr. 3.
CE 57000 - Advanced Structural Mechanics Cr. 3.
ECE 48300 - Digital Control Systems - Analysis and Design Cr. 3.
    Other 5xx-level engineering courses may be included in Group 1 with approval. A course cannot count
    towards both an undergraduate and graduate degree.

Group 2

ME 37300 - Numerical Methods for Engineers Cr. 3.
ME 49700 - Mechanical Engineering Projects Cr. 1-6.
ME 49800 - Research in Mechanical Engineering I Cr. 3.
ME 49900 - Research in Mechanical Engineering II Cr. 3.
SE 51000 - Systems Engineering Cr. 3.
SE 52000 - Engineering Economics Cr. 3.
MA 51000 - Vector Calculus Cr. 3.
MA 51100 - Linear Algebra with Applications Cr. 3.
MA 52300 - Introduction to Partial Differential Equations Cr. 3.
MA 52500 - Introduction to Complex Analysis Cr. 3.
STAT 51100 - Statistical Methods Cr. 3.
STAT 51200 - Applied Regression Analysis Cr. 3.
CHM 37100 - Physical Chemistry Cr. 3.
PHYS 32200 - Optics Cr. 3.
PHYS 34200 - Modern Physics Cr. 3.
ECE 38700 - Electronics and System Engineering Through Robotics Cr. 3.
CS 32100 - Introduction to Computer Graphics Cr. 3.
CS 38400 - Numerical Analysis Cr. 3.
    Other 5xx-level engineering, math, or physics courses may be included in Group 2 with approval. A course
    cannot be counted towards both an undergraduate and graduate degree.

Total Credits: 126

GPA Requirement

All engineering & technical elective courses must have a combined minimum GPA of 2.0

Mechanical Engineering Technology (B.S.)

Program: B.S.
Department of Manufacturing and Construction Engineering Technology and Interior Design
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 221 ~ 260-481-4127 ~ www.mcet.ipfw.edu

The student learning outcomes for the degree are as follows:

An appropriate mastery of the knowledge, techniques, skills and modern tools of the appropriate ET program.

An ability to apply current knowledge and adapt to emerging applications of mathematics, science, engineering and technology.

An ability to conduct, analyze and interpret experiments and apply experimental results to improve processes.

An ability to apply creativity in the design of mechanical systems, mechanical components or manufacturing processes.

An ability to function effectively on teams.

An ability to identify, analyze and solve technical problems in mechanical engineering and engineering technology.

An ability to communicate effectively.

A recognition of the need for, and an ability to engage in lifelong learning.

An ability to understand professional, ethical and social responsibilities.

A knowledge of and respect for diversity, contemporary societal and global issues.

A commitment to quality, timeliness, and continuous improvement.

This program prepares graduates with knowledge, problem-solving ability, and hands-on skills to enter careers in analysis, applied design, development, implementation, manufacturing, testing, technical sales, evaluation, or oversight of mechanical systems and processes.

To earn the B.S. with a major in mechanical engineering technology, you must fulfill the requirements of IPFW (see Part 8); the College of Engineering, Technology, and Computer Science (see Part 4); and the A.S., and complete the following courses, earning a grade of C or better in those courses that serve as prerequisites:

Technical expertise in engineering materials, statics, dynamics, strength of materials, fluid mechanics, fluid power, thermodynamics, heat transfer, and electronic control.

Technical expertise in manufacturing processes, mechanical design, and computer-aided engineering graphics, engineering materials, automatic controls, industrial operations with added technical depth in manufacturing processes, computer-aided engineering graphics, mechanical design and engineering materials.

Expertise in applied physics having an emphasis in applied mechanics plus fundamentals of electricity in physics and inorganic chemistry.

IPFW General Education Requirements

Area III—The Individual, Culture, and Society

ECON E201 - Introduction to Microeconomics Cr. 3.

Area IV—Humanistic Thought Credits: 3

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis Credits: 6

See Part 2 General Education Requirements for approved courses

Required Core and Concentration (Major) Courses

IET 35000 - Engineering Economy Cr. 3.
MET 24700 - Computer-Aided Tool and Fixture Design Cr. 3.
MET 30000 - Applied Thermodynamics Cr. 3.
MET 31200 - Dynamics and Mechanisms Cr. 3.
MET 34700 - Programming of Automation Systems Cr. 3.
MET 35000 - Applied Fluid Mechanics Cr. 3.
MET 37000 - Introduction to Heat Transfer Cr. 3.
MET 38100 - Engineering Materials Cr. 3.
MET 48700 - Instrumentation and Automatic Control Cr. 3.
MET 49400 - Senior Design and Analysis Cr. 3.

Additional Required Technical Courses

CHM 11100 - General Chemistry Cr. 3.
ECET 21100 - Electrical Machines and Controls Cr. 3.
MA 22700 - Calculus for Technology I Cr. 4.
     Grade of C or better required
MA 22800 - Calculus for Technology II Cr. 3.

Computer Programming Elective Credits: 3

Additional Required Support Courses

COM 32300 - Business and Professional Speaking Cr. 3.
ENG W421 - Technical Writing Projects Cr. 1-3.

Additional Core and Concentration Electives Credits: 6

Any two courses from IET and MET, or a course approved by an MET advisor.

Total Credits Including 65 from A.S.: 132

Media and Public Communication (B.A.)

Program: B.A.
Department of Communication
College of Arts and Sciences

Neff Hall 230 ~ 260-481-6825 ~ www.ipfw.edu/comm/

The student learning outcomes for the degree are as follows:

> Be able to articulate the historical traditions of the discipline.
> Be aware of and skillful in the use of new technologies relevant to the major.
> Be able to explain communication concepts and theories relevant to the major.
> Be able to explain, evaluate and apply the processes involved in productive conflict in the contexts (interpersonal, small group, organizational, mediated, public) relevant to the major.
> Demonstrate awareness of diverse perspectives.
> Be a competent reader, speaker, writer and listener.
> Identify and analyze the interrelation among media economics and relevant institutions and agencies.
> Critically analyze media and public communication.
> Demonstrate a basic understanding of the terminology of mediated and public communication.
> Identify and analyze the form, structure and techniques of mediated or public texts in their entirety, and consider how they function in a larger context.

The major in media and public communication offers theoretical, critical, and practical perspectives to help you navigate the changing communication environment of the 21st century. The courses in this major help you understand communication and media practices and adapt to new technologies. These courses provide concepts and skills that enable you to think and write critically about media and public communication in relation to society, culture, and everyday life. In addition, course areas are available that give you practical experience in message design, media production, and communication performance. Graduates of the program have careers in public information, media production, writing for media, management, sales, advertising, and public relations.

The Department of Communication offers a bachelor's degree in interpersonal and organizational communication and a minor in media production for those students who want more courses in practical skills. Two courses in a major offered in the Department of Communication can also be counted in the required minor. If the minor is selected from an Arts and Sciences department, the courses may be used to satisfy distribution requirements in the college.

To earn the B.A. with a major in media and public communication, you must fulfill the requirements of IPFW (see Part 8), the College of Arts and Sciences (see Part 4), and the Department of Communication as listed below. You also must earn a minor in an appropriate discipline.

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of the following: Credits: 3

ENG W131 - Elementary Composition I Cr. 3.
ENG W140 - Elementary Composition Honors Cr. 3.

One of the following: Credits: 3

MA 15300 - Algebra and Trigonometry I Cr. 3.
MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society

See Part 2 General Education Requirements for approved courses

Additional credits (not in COM) in Area III Credits: 3
COM 25000 - Mass Communication and Society Cr. 3.
Credits: 0
(credits included in Major Courses, below)

Area IV—Humanistic Thought (Not in COM) Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (not in COM) Credits: 3

See Part 2 General Education Requirements for approved courses

College of Arts and Sciences Requirements

English Writing

ENG W233 - Intermediate Expository Writing Cr. 3.
(or other approved writing course)

Foreign Language

Requirements in Arts and Sciences Part B Credits: 14

Distribution (not in COM)

Requirements in Arts and Sciences Part C Credits: 9

Cultural Studies

Requirements in Arts and Sciences Part D Credits: 6

Core and Concentration (Major) Courses

2.0 required in all courses in the major

COM 12000 - Introduction to Communication Technology and Communication Fields Cr. 1.
COM 21200 - Approaches to the Study of Interpersonal Communication Cr. 3.
COM 25000 - Mass Communication and Society Cr. 3.
COM 30000 - Introduction to Communication Research Methods Cr. 3.
COM 30800 - Applied Communication Cr. 1.
COM 31800 - Principles of Persuasion Cr. 3.
COM 33000 - Theories of Mass Communication Cr. 3.
COM 48000 - Senior Seminar in Communication Cr. 1.

Credits from among the following: Credits: 9

COM 30300 - Intercultural Communication Cr. 3.
COM 31200 - Rhetoric in the Western World Cr. 3.
COM 31400 - Advanced Presentational Speaking Cr. 3.
COM 31600 - Controversy in American Society Cr. 3.
COM 32500 - Interviewing: Principles and Practice Cr. 3.
COM 33200 - Television Studio Production Cr. 3.
COM 33800 - Documentary or Experimental Film and Video Cr. 3.
COM 35200 - Mass Communication Law Cr. 3.
COM 42100 - Media Genres Cr. 3.
COM 42200 - Women, Men, and Media Cr. 3.
COM 47100 - Communicating Peace Cr. 3.
COM 49100 - Special Topics in Communication Cr. 1-3.

Credits from among the following Credits: 3

COM 50700 - Introduction to Semiotics Cr. 3.
COM 51500 - Persuasion in Social Movements Cr. 3.
COM 51600 - Analysis of Persuasive Messages Cr. 3.
COM 51700 - Communication in Politics Cr. 3.
COM 51800 - Theories of Persuasion Cr. 3.
COM 52100 - Theories of Rhetoric Cr. 3.
COM 52200 - History and Criticism of Public Communication Cr. 3.
COM 52700 - Introduction to Cultural Studies Cr. 3.
COM 53100 - Special Topics in Mass Communication Cr. 3.
COM 55700 - Legal Dimensions of Communication Cr. 3.
COM 56300 - Public Policy in Telecommunication Cr. 3.

Minor and Elective Courses

Credits in an approved minor (with grades of C or higher) Credits: 12–21

Sufficient additional credits to bring the total to 124.

Total Credits: 124

Music and an Outside Field (B.S.)

Program: B.S.
Department of Music
College of Visual and Performing Arts

Rhinehart Music Center 144 ~ 260-481-6714 ~ www.ipfw.edu/vpa/music

The student learning outcomes for the degree are as follows:

Performance. Music majors will demonstrate the ability to perform competently in public on a principal instrument or voice as a soloist and as a member of a major ensemble.

Music Theory. Students will demonstrate:

    knowledge of musical form, structures, concepts, and terms
    skill and fluency in application through analysis
    ability to compose within basic musical structures
    perspective regarding historical styles and structures

Aural Perception. Students will demonstrate the ability to:

    ability to relate the cognitive to aural perception and to aesthetic responsefakeFCKRemove
    read and sing melodic lines with accurate intonation
    read and perform complex rhythms accurately
    recognize and notate melodic, rhythmic, and harmonic patterns and progressions

Music History and Literature. Students will demonstrate knowledge of:

    the principal composers,genres, styles, and performance practices of Western art music
    representative compositions of western art music, recognized aurally and from score
    non-western music and its cultural contexts and influences
    social, political and aesthetic influences and impact on music
    the influence of music on its social, political and aesthetic contexts.

Keyboard. All music majors will be able to use the keyboard as a basic tool and will demonstrate the ability to:

    perform appropriate technical skills such as scales, arpeggios, etc.
    play chord progression from Roman numerals
    improvise
    play "by ear" and from lead sheets
    harmonize melodic lines
    perform repertoire at the intermediate level
    transpose simple pieces and lead sheets
    sight read at the late elementary level
    play from 4-part open score

Technology. Students will demonstrate a basic overview of how technology serves the field of music as a whole including the following:

    knowledge of computer hardware
    ability to use notational software

ability to use the Internet as a resource for research

Conducting. Students will demonstrate conducting knowledge and skills sufficient to run an effective rehearsal and performance, including the following:

standard beat patterns and meters
common articulations
cues and cutoffs
varying dynamics
setting, maintaining, and altering tempi
score preparation

Students will develop expertise in music and a complementary field by combining the music core curriculum and performance studies with 26-30 hours of another discipline, demonstrated through the following:

ability to articulate the relationship of music to the outside field or their personal rational for combining the two areas
expertise in the outside field through such capstone experiences as internships and senior projects for such skills-related outside field such as business or theatre
expertise in the outside field by achieving a grade of C or higher in each course taken in the outside field

This degree combines a major in music with an opportunity to study in one of many available non-music areas, such as business, communication, electrical engineering technology, psychology, or the sciences. Some outside fields have specific course requirements. Students should consult with an advisor in the Department of Music for this information. Some outside fields require a 3-credit internship as a part of the outside field hours, and others offer the internship as an option. Consult with your advisor. Ensemble participation is not required during the semester of internship.

To earn the B.S. in Music and an Outside Field, one must satisfy the requirements of IPFW (see Part 8) and the music core, and complete the courses listed below. Credits required in the outside field must be approved in writing by an appropriate faculty member in the outside-field program of study. A record of this approval from the outside-field department will be kept as a part of your permanent file. A maximum of 6 credits in the outside field may be taken with the pass/not-pass option. An overall GPA of 2.50 or higher must be maintained in the outside field and is required for graduation. A course with a grade lower than C will not be counted toward outside-field course requirements.

IPFW General Education Requirements (33 credits)

Area I—Linguistic and Numerical Foundations Credits: 9

See Part 2 General Education Requirements for approved courses

Reading/Writing Credits: 3

COM 11400 - Fundamentals of Speech Communication Cr. 3.

Quantitative Reasoning Credits: 3

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Music majors may not use MUS Z101 to fulfill Area IV requirements

MUS Z105 - Traditions in World Music Cr. 3.

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Music majors may not use MUS Z140 to fulfill Area V requirements

Area VI—Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses

Music Core Credits: 33

MUS G370 - Techniques for Conducting Cr. 2.
MUS M201 - Music Literature I Cr. 2.
MUS M202 - Music Literature II Cr. 2.
MUS M403 - History of Music I Cr. 3.
MUS M404 - History of Music II Cr. 3.
MUS T113 - Music Theory I Cr. 3.
MUS T114 - Music Theory II Cr. 3.
MUS T115 - Sightsinging and Aural Perception I Cr. 1.
MUS T116 - Sightsinging and Aural Perception II Cr. 1.
MUS T213 - Music Theory III Cr. 3.
MUS T214 - Music Theory IV Cr. 3.
MUS T215 - Sightsinging and Aural Perception III Cr. 1.
MUS T216 - Sightsinging and Aural Perception IV Cr. 1.
MUS T315 - Analysis of Musical Form Cr. 3.
MUS U109 - Computer Skills for Musicians Cr. 2.

Performance Studies Credits: 25-31

Applied Primary (includes recital) Credits: 14-16

MUS X095 - Performance Class Cr. 0.
    (7-8 semesters)
MUS X296 - Applied Music Upper Divisional Jury Examination Cr. 0.
MUS X299 - Piano Proficiency Examination Cr. 0.
MUS X301 - Recital: Concentration Level Cr. 0.

Applied Secondary Credits: 4-7

Non-keyboard Concentrations take:

MUS P111 - Class Piano I Cr. 1-2.
MUS P121 - Class Piano II Cr. 1-2.
MUS P131 - Class Piano III Cr. 1-2.
MUS P141 - Class Piano IV Cr. 1-2.

Keyboard Concentrations take:

MUS P211 - Keyboard Techniques Cr. 1-2.
and 200-level applied study (6 credits)

Ensembles Credits: 7-8

Outside Field Credits: 26-30

Some outside fields include in this credit range a 3-credit internship. These outside fields require only seven semesters of ensemble participation; consult your advisor.

Other Requirements

Free electives Credits: 4-9

Total Credits: 130

Music Education (B.Mus.Ed)

Program: B.Mus.Ed.
Department of Music
College Visual and Performing Arts

Rhinehart Music Center 144 ~ 260-481-6714 ~ www.ipfw.edu/vpa/music

The student learning outcomes for the degree are as follows:

Performance. Music majors will demonstrate the ability to perform competently in public on a principal instrument or voice as a soloist and as a member of a major ensemble.

Music Theory. Students will demonstrate:

knowledge of musical form, structures, concepts, and terms
skill and fluency in application through analysis
ability to compose within basic musical structures
perspective regarding historical styles and structures
ability to relate the cognitive to aural perception and to aesthetic response

Aural Perception. Students will demonstrate the ability to:

read and sing melodic lines with accurate intonation
read and perform complex rhythms accurately
recognize and notate melodic, rhythmic, and harmonic patterns and progressions

Music History and Literature. Students will demonstrate knowledge of:

the principal composers,genres, styles, and performance practices of Western art music

representative compositions of western art music, recognized aurally and from score

non-western music and its cultural contexts and influences

social, political and aesthetic influences and impact on music

the influence of music on its social, political and aesthetic contexts.

Keyboard. All music majors will be able to use the keyboard as a basic tool and will demonstrate the ability to:

perform appropriate technical skills such as scales, arpeggios, etc.

play chord progression from Roman numerals

improvise

play "by ear" and from lead sheets

harmonize melodic lines

perform repertoire at the intermediate level

transpose simple pieces and lead sheets

sight read at the late elementary level

play from 4-part open score

Technology. Students will demonstrate a basic overview of how technology serves the field of music as a whole including the following:

knowledge of computer hardware

ability to use notational software

ability to use the Internet as a resource for research

Conducting. Students will demonstrate conducting knowledge and skills sufficient to run an effective rehearsal and performance, including the following:

standard beat patterns and meters

common articulations

cues and cutoffs

varying dynamics

setting, maintaining, and altering tempi

Music Competencies.

Students in all teaching concentrations will demonstrate:

knowledge of content, methodologies, philosophies, materials, technologies, repertoire and curriculum development for P-12 general music

competency sufficient to compose, arrange, and adapt music from a variety of sources to meet the needs and abilities of school performance groups and classes

functional performance ability in keyboard and voice

competency in transposing and improvising piano accompaniments for classroom music activities

competency in applying analytical and historical knowledge to curriculum development, lesson planning, and classroom and performance activities

Vocal/general concentration. Students will demonstrate:

knowledge of content, methodologies, philosophies, materials, technologies, repertoire and curriculum development for vocal music

skill in singing and playing parts from a choral score as required in a choral rehearsal

vocal skill and technique sufficient to teach effective use of the voice

Instrumental/general concentration. Students will demonstrate:

knowledge of content, methodologies,philosophies, materials, technologies, repertoire and curriculum development for instrumental music

knowledge of and performance ability on wind, string and percussion instruments sufficient to teach beginning students

skill in transposing instrumental music

Teaching competencies. Students in all teaching concentrations will demonstrate:

understanding of the philosophical, historical, social and psychological foundations of music education

understanding of child growth and development and the principles of learning as they relate to music education

ability to teach music to a variety of age groups in a variety of classroom and ensemble settings, including skill in effective management of classes and rehearsals

ability to assess the aptitudes and experiences of individuals and groups of students, and to plan learning to meet the assessed needs.

ability to apply appropriate rehearsal techniques and procedures to the planning, organization, and implementing of effective rehearsals

understanding of evaluative techniques and the ability to apply appropriate measures in assessing the musical progress of students and in evaluating materials, objectives and procedures of the curriculum

ability to work productively in the educational system, maintaining positive relationships and empathizing with students and colleagues of different backgrounds

ability to articulate a rationale for music as a core component in a well-rounded education, and to effectively advocate for a music program to parents, professional colleagues and administrators

The music-education program provides preparation for teaching music in grades K–12. One may choose to concentrate in choral/general music education, or instrumental/general music education. Upon satisfactory completion of this program, one is eligible to apply for an Indiana teaching license in the appropriate concentration.

To earn the B.Mus.Ed., one must satisfy the requirements of IPFW (see Part 8), the music core, and the School of Education (see Part 4) and satisfactorily complete all music and professional education courses with a grade of C or better.

IPFW General Education Requirements Credits: 33

Area I—Linguistic and Numerical Foundations Credits: 9

See Part 2 General Education Requirements for approved courses

Reading/Writing Credits: 3

COM 11400 - Fundamentals of Speech Communication Cr. 3.

Quantitative Reasoning Credits: 3

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Music majors may not use MUS Z101 to fulfill Area IV requirements

    MUS Z105 - Traditions in World Music Cr. 3.

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Music majors may not use MUS Z140 to fulfill Area V requirements

Area VI—Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses

Music Core Credits: 33

    MUS G370 - Techniques for Conducting Cr. 2.
    MUS M201 - Music Literature I Cr. 2.
    MUS M202 - Music Literature II Cr. 2.
    MUS M403 - History of Music I Cr. 3.
    MUS M404 - History of Music II Cr. 3.
    MUS T113 - Music Theory I Cr. 3.
    MUS T114 - Music Theory II Cr. 3.
    MUS T115 - Sightsinging and Aural Perception I Cr. 1.
    MUS T116 - Sightsinging and Aural Perception II Cr. 1.
    MUS T213 - Music Theory III Cr. 3.
    MUS T214 - Music Theory IV Cr. 3.
    MUS T215 - Sightsinging and Aural Perception III Cr. 1.
    MUS T216 - Sightsinging and Aural Perception IV Cr. 1.
    MUS T315 - Analysis of Musical Form Cr. 3.
    MUS U109 - Computer Skills for Musicians Cr. 2.

Performance Studies Credits: 25-28

Applied Primary (includes recital) Credits: 14

    MUS X296 - Applied Music Upper Divisional Jury Examination Cr. 0.

Applied Secondary Credits: 4-7

    MUS X095 - Performance Class Cr. 0.
       (7 semesters)
    MUS X299 - Piano Proficiency Examination Cr. 0.
    MUS X301 - Recital: Concentration Level Cr. 0.

Non-keyboard Concentrations take:

    MUS P111 - Class Piano I Cr. 1-2.
    MUS P121 - Class Piano II Cr. 1-2.

MUS P131 - Class Piano III Cr. 1-2.
MUS P141 - Class Piano IV Cr. 1-2.

Keyboard Concentrations take:

MUS P211 - Keyboard Techniques Cr. 1-2.
and 200-level applied study (6 credits)

Ensemble Credits: 7

Professional Music Courses Credits: 13

MUS K312 - Arranging for Instrumental and Vocal Groups Cr. 2.
MUS M216 - Music Education Lab/Field Experience Cr. 0.
MUS M236 - Introduction to Music Education Cr. 2.
MUS M319 - Music Education Lab/Field Experience Cr. 0.
MUS M339 - General Music Methods K-8 Cr. 2.
MUS U357 - Music in Special Education Cr. 3.
MUS X297 - Music Education Upper Divisional Skills Examination Cr. 0.

Professional Music Concentration Courses Credits: 11-12

Choral and General Music

MUS E494 - Voice Pedagogy Cr. 3.
MUS G371 - Choral Conducting I Cr. 2.
MUS M318 - Music Education Lab/Field Experience Cr. 0.
MUS M338 - Methods and Materials for Teaching Choral Music Cr. 2.
MUS V201 - Voice Class Cr. 1.
(nonvocal concentrates only)

Music Education Electives: 2

Instrumental and General Music

MUS G373 - Instrumental Conducting Cr. 2.
MUS V201 - Voice Class Cr. 1.
MUS M317 - Music Education Lab/Field Experience Cr. 0.
MUS M337 - Methods and Materials for Teaching Instrumental Music Cr. 2.

Four of the following (excluding primary instrument) Credits: 4

MUS G261 - String Techniques Cr. 1-2.
MUS G272 - Clarinet and Saxophone Techniques Cr. 1-2.
MUS G281 - Brass Instrument Techniques Cr. 1-2.
MUS G337 - Woodwind Techniques Cr. 1-2.
MUS G338 - Percussion Techniques Cr. 1-2.

Music Education Electives: 5

Professional Education Courses Credits: 22

A GPA of 2.5 is required.

> EDUC H340 - Education and American Culture Cr. 2-3.
> EDUC M201 - Laboratory/Field Experience Cr. 0-3.
> EDUC M482 - Student Teaching: All Grades Cr. 1-16.
> EDUC M501 - Lab/Field Experience Cr. 0-3.
>   Portfolio Cr. 0
> EDUC P250 - General Educational Psychology Cr. 1-4.
> EDUC P254 - Educational Psychology for Teachers of All Grades Cr. 1-4.

Total Credits: 137–141

Music Performance (B.Mus.)

Program: B.Mus.
Department of Music
College of Visual and Performing Arts

Rhinehart Music Center 144 ~ 260-481-6714 ~ www.ipfw.edu/vpa/music

The student learning outcomes for the degree are as follows:

Performance. Music majors will demonstrate the ability to perform competently in public on a principal instrument or voice as a soloist and as a member of a major ensemble.

Music Theory. Students will demonstrate:

> knowledge of musical form, structures, concepts, and terms
> skill and fluency in application through analysis
> ability to compose within basic musical structures
> perspective regarding historical styles and structures
> ability to relate the cognitive to aural perception and to aesthetic response

Aural Perception. Students will demonstrate the ability to:

> read and sing melodic lines with accurate intonation
> read and perform complex rhythms accurately
> recognize and notate melodic, rhythmic, and harmonic patterns and progressions

Music History and Literature. Students will demonstrate knowledge of:

> the principal composers,genres, styles, and performance practices of Western art music
> representative compositions of western art music, recognized aurally and from score
> non-western music and its cultural contexts and influences
> social, political and aesthetic influences and impact on music
> the influence of music on its social, political and aesthetic contexts.

Keyboard. All music majors will be able to use the keyboard as a basic tool and will demonstrate the ability to:

> perform appropriate technical skills such as scales, arpeggios, etc.

play chord progression from Roman numerals

improvise

play "by ear" and from lead sheets

harmonize melodic lines

perform repertoire at the intermediate level

transpose simple pieces and lead sheets

sight read at the late elementary level

play from 4-part open score

Technology. Students will demonstrate a basic overview of how technology serves the field of music as a whole including the following:

knowledge of computer hardware

ability to use notational software

ability to use the Internet as a resource for research

Conducting. Students will demonstrate conducting knowledge and skills sufficient to run an effective rehearsal and performance, including the following:

standard beat patterns and meters

common articulations

cues and cutoffs

varying dynamics

setting, maintaining, and altering tempi

score preparation

Performance majors will demonstrate:

the ability to work independently to prepare performances at a high level of quality

knowledge of applicable solo and ensemble literature

orientation to and experience with the fundamentals of pedagogy

Piano performance majors will demonstrate:

ability to perform as a soloist, an accompanist and/or chamber musician

ability to function as an accompanist

ability to play in chamber ensembles

Vocal performance majors will demonstrate:

ability to perform as a soloist

ability to perform operatic roles

ability to perform in choral ensembles

Instrumental performance majors will demonstrate:

ability to perform as a soloist

ability to perform in chamber ensembles

ability to perform in large ensembles

The Bachelor of Music program provides an opportunity to earn a performance degree in voice, winds, strings, piano, or percussion.

To earn the Bachelor of Music, one must satisfy the requirements of IPFW (see Part 8) and the music core, and satisfactorily complete the following courses, and earn a grade of C or better in each music course.

IPFW General Education Requirements (33 credits)

Area I—Linguistic and Numerical Foundations Credits: 9

See Part 2 General Education Requirements for approved courses

Reading/Writing Credits: 3

COM 11400 - Fundamentals of Speech Communication Cr. 3.

Quantitative Reasoning Credits: 3

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Music majors may not use MUS Z101 to fulfill Area IV requirements

MUS Z105 - Traditions in World Music Cr. 3.

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Music majors may not use MUS Z140 to fulfill Area V requirements

Vocal Performance Majors must take THTR 134

Area VI—Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses

Music Core Credits: 33

MUS G370 - Techniques for Conducting Cr. 2.
MUS M201 - Music Literature I Cr. 2.
MUS M202 - Music Literature II Cr. 2.
MUS M403 - History of Music I Cr. 3.
MUS M404 - History of Music II Cr. 3.
MUS T113 - Music Theory I Cr. 3.
MUS T114 - Music Theory II Cr. 3.
MUS T115 - Sightsinging and Aural Perception I Cr. 1.
MUS T116 - Sightsinging and Aural Perception II Cr. 1.
MUS T213 - Music Theory III Cr. 3.
MUS T214 - Music Theory IV Cr. 3.
MUS T215 - Sightsinging and Aural Perception III Cr. 1.
MUS T216 - Sightsinging and Aural Perception IV Cr. 1.

MUS T315 - Analysis of Musical Form Cr. 3.
MUS U109 - Computer Skills for Musicians Cr. 2.

Performance Studies Credits: 32

Applied Primary (includes recital) Credits: 16

MUS X296 - Applied Music Upper Divisional Jury Examination Cr. 0.

Applied Secondary Credits: 4-7

MUS X095 - Performance Class Cr. 0.
 (8 semesters)
MUS X299 - Piano Proficiency Examination Cr. 0.
MUS X401 - Junior Recital: Performance Major Cr. 0.
MUS X402 - Senior Recital: Performance Major Cr. 0.

Non-keyboard Concentrations take:

MUS P111 - Class Piano I Cr. 1-2.
MUS P121 - Class Piano II Cr. 1-2.
MUS P131 - Class Piano III Cr. 1-2.
MUS P141 - Class Piano IV Cr. 1-2.

Keyboard Concentrations take:

MUS P211 - Keyboard Techniques Cr. 1-2.
 and 200-level applied study (6 credits)

Ensembles Credits: 8

Piano Performance majors take major ensembles for 6 semesters and

MUS X002 - Piano Accompanying Cr. 1-2.
 for 2 semesters

Professional Music Courses and Free Electives Credits: 26

*Piano Majors (**26 credits**)*

Piano ensemble/piano chamber ensemble Credits: 2

Keyboard literature Credits: 6

Piano pedagogy Credits: 3

Electives in music Credits: 6

Free electives Credits: 9

*Voice Majors (**26 credits**)*

Song literature Credits: 3

Foreign language Credits: 8

Diction Credits: 4

Vocal pedagogy Credits: 3

Opera Ensemble Credits: 2

Elective credits in music Credits: 3

Free electives Credits: 3

*Instrumental Majors (**26 credits**)*

Instrumental literature Credits: 3

Instrumental pedagogy Credits: 2

Additional ensembles Credits: 6
  Refer to *Department of Music Handbook*

Elective credits in music Credits: 6

Free electives Credits: 9

Total Credits: 120-123

Music Therapy (B.S.M.T.)

Program: B.S.M.T.
Department of Music
College of Visual and Performing Arts

Rhinehart Music Center 144 ~ 260-481-6714 ~ www.ipfw.edu/vpa/music

The student learning outcomes for the degree are as follows:

Performance. Music majors will demonstrate the ability to perform competently in public on a principal instrument or voice as a soloist and as a member of a major ensemble.

Music Theory. Students will demonstrate:

  knowledge of musical form, structures, concepts, and terms
  skill and fluency in application through analysis
  ability to compose within basic musical structures
  perspective regarding historical styles and structures
  ability to relate the cognitive to aural perception and to aesthetic response
Aural Perception. Students will demonstrate the ability to:

  read and sing melodic lines with accurate intonation

read and perform complex rhythms accurately

recognize and notate melodic, rhythmic, and harmonic patterns and progressions

Music History and Literature. Students will demonstrate knowledge of:

the principal composers,genres, styles, and performance practices of Western art music

representative compositions of western art music, recognized aurally and from score

non-western music and its cultural contexts and influences

social, political and aesthetic influences and impact on music

the influence of music on its social, political and aesthetic contexts.

Keyboard. All music majors will be able to use the keyboard as a basic tool and will demonstrate the ability to:

perform appropriate technical skills such as scales, arpeggios, etc.

play chord progression from Roman numerals

improvise

play "by ear" and from lead sheets

harmonize melodic lines

perform repertoire at the intermediate level

transpose simple pieces and lead sheets

sight read at the late elementary level

play from 4-part open score

Technology. Students will demonstrate a basic overview of how technology serves the field of music as a whole including the following:

knowledge of computer hardware

ability to use notational software

ability to use the Internet as a resource for research

Conducting. Students will demonstrate conducting knowledge and skills sufficient to run an effective rehearsal and performance, including the following:

standard beat patterns and meters

common articulations

cues and cutoffs

varying dynamics

setting, maintaining, and altering tempi

score preparation

Music Foundations. Students will demonstrate general musicianship, as well as specific music knowledge and skills, sufficient to appropriately and effectively apply a wide variety of music interventions within the clinical setting including the following:

recognition of standard works from various periods and cultures, and identification of their elemental, structural land stylistic characteristics

sight-singing transposing and aural dictation of melodies, rhythms and chord progressions

composing songs and simple instrumental pieces in a variety of styles with simple accompaniments

adapting, arranging, transposing, and simplifying compositions for vocal and non-symphonic instrumental ensembles

performing appropriate undergraduate repertoire, and demonstrating musicianship, technical proficiency, and interpretive understanding on a principle instrument/voice

functional keyboard skills including accompanying, sight-reading and transposition skills for a basic repertoire of traditional, folk and popular songs and musical styles

functional guitar skills including accompanying, sight-reading and transpositions skills for a basic repertoire of traditional, folk, and popular songs and musical styles

functional vocal skills for singing a basic repertoire of traditional, folk and popular songs and musical styles and for vocally leading group singing

utilizing a variety of non-symphonic and ethnic instruments and percussion for accompanying and leading group singing and playing

improvise on non-symphonic and ethnic instruments and percussion in a wide variety of styles and moods for accompaniment and group playing

conducting small and large vocal and instrumental ensembles

Clinical Foundations. Students will demonstrate an understanding of and ability to integrate philosophies, orientations, theories and techniques of traditional therapies into clinical music therapy practice, including the following:

understanding of the general populations and specific disability and diagnostic groups to which music therapy clients typically belong, including:

causes and symptoms of major exceptionalities

basic terminology and diagnostic classifications

potentials, limitations and problems of exceptional individuals

understanding of human development throughout the life span, including major theories of development

basic knowledge of the major schools of thought and their accepted methods of therapeutic interventions

demonstrate an understanding of basic group process within therapeutic environments

utilize the dynamics of group process to address therapeutic goals

develop a depth of self-awareness that allows for the establishment of ethically appropriate and effective therapeutic relationships

Music Therapy. Students will demonstrate an understanding of, and ability to integrate and practice music therapy-specific concepts and skills in preparation for effective provision of clinical music therapy services to clients in a manner which adheres to professional standards of clinical practice and to ethical code, including the following:

basic knowledge of music therapy methods, techniques, materials and equipment and their appropriate applications, as appropriate to a variety of client populations and settings

application of the philosophical, psychological, physiological and sociological bases for the use of music as therapy

application of the principles and methods for evaluating the effectiveness of music therapy

communication of a basic understanding of the concepts, processes, methods and techniques, cultural implications, and analyses and interpretations of music therapy assessment

a basic understanding of the process of formulating and focusing music therapy treatment plans in response to the strengths, weakness, needs, and socio-cultural contexts of individuals and groups

ability to apply music therapy treatment in response to the strengths, weakness, needs, and socio-cultural contexts of individuals and groups

ability to creatively utilize a wide variety of musical intervention, including use of voice, solo, and accompaniment instruments, pitched and non-pitched percussive instruments, pre-composed music, and recorded music, in order to effectively address clients' treatment objectives

creativity and flexibility in responding to client needs as they are presented within the music therapy session

effective use of therapeutic self within the music therapy session in order to shape client behavior and increase client communication

effectively communicate, verbally and in writing, all aspects of the clinical process, including, assessment, planning, implementation, outcomes, and evaluation

attitudes and behaviors that reflect the standards and ethical codes required of the music therapy professional basic knowledge of quantitative, qualitative and historical research in music therapy,l and its implications for and applications to music therapy clinical practice.

Music therapists use music and music activities to promote health and rehabilitation for individuals of all ages with disabilities in a variety of agencies such as hospitals, schools, rehabilitation centers, and private practice settings. Students must satisfactorily complete a six-month internship at the conclusion of the required course work. Graduates of the B.S.M.T. program are eligible to sit for the national certification exam sponsored by the Certification Board for Music Therapists. Music therapy majors must work closely with an advisor to select general education courses that meet national certification requirements. Bachelor of Science in Music Therapy (B.S.M.T.) candidates have some specific general education courses in some categories.

Gerontology

For information about earning an undergraduate certificate in gerontology concurrently with the B.S.M.T., consult the gerontology program entry in this section of this Bulletin. Additional information is published in the *Department of Music Student Handbook*.

IPFW General Education Requirements (33 credits)

Area I—Linguistic and Numerical Foundations Credits: 9

See Part 2 General Education Requirements for approved courses

Reading/Writing Credits: 3

COM 11400 - Fundamentals of Speech Communication Cr. 3.

Quantitative Reasoning Credits: 3

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

BIOL 20300 - Human Anatomy and Physiology Cr. 4.

Area III—The Individual, Culture, and Society Credits: 6

PSY 12000 - Elementary Psychology Cr. 3.
SOC S161 - Principles of Sociology Cr. 3.
SOC S163 - Social Problems Cr. 3.

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Music majors may not use MUS Z101 to fulfill Area IV requirements

MUS Z105 - Traditions in World Music Cr. 3.

Area V—Creative and Artistic Expression Credits: 3

Music majors may not use MUS Z140 to fulfill Area V requirements

MUS L153 - Introduction to Music Therapy Cr. 3.

Area VI—Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses

Music Core Credits: 33

MUS G370 - Techniques for Conducting Cr. 2.
MUS M201 - Music Literature I Cr. 2.
MUS M202 - Music Literature II Cr. 2.
MUS M403 - History of Music I Cr. 3.
MUS M404 - History of Music II Cr. 3.
MUS T113 - Music Theory I Cr. 3.
MUS T114 - Music Theory II Cr. 3.
MUS T115 - Sightsinging and Aural Perception I Cr. 1.
MUS T116 - Sightsinging and Aural Perception II Cr. 1.
MUS T213 - Music Theory III Cr. 3.
MUS T214 - Music Theory IV Cr. 3.
MUS T215 - Sightsinging and Aural Perception III Cr. 1.
MUS T216 - Sightsinging and Aural Perception IV Cr. 1.
MUS T315 - Analysis of Musical Form Cr. 3.
MUS U109 - Computer Skills for Musicians Cr. 2.

Performance Studies Credits: 25-28

MUS X095 - Performance Class Cr. 0.
    (7 semesters)
MUS X299 - Piano Proficiency Examination Cr. 0.

Applied Primary (includes recital) Credits: 14

MUS X269 - Upper Divisional Exam Credits: 0

Applied Secondary Credits: 4-7

Non-keyboard Concentrations take:

MUS P111 - Class Piano I Cr. 1-2.
MUS P121 - Class Piano II Cr. 1-2.
MUS P131 - Class Piano III Cr. 1-2.
MUS P141 - Class Piano IV Cr. 1-2.

Keyboard Concentrations take:

MUS P211 - Keyboard Techniques Cr. 1-2.
    and 200-level applied study (6 credits)

Ensembles Credits: 7

Professional Music Therapy Courses Credits: 28

MUS E253 - Functional Music Skills Cr. 2.
MUS L253 - Music Therapy Observation Practicum Cr. 1.

MUS L254 - Music Therapy Practicum I Cr. 1.
MUS L340 - Music Therapy in Healthcare Settings Cr. 3.
MUS L353 - Music Therapy Practicum II Cr. 1.
MUS L354 - Music Therapy Practicum III Cr. 1.
MUS L410 - Administrative and Professional Issues in Music Therapy Cr. 3.
MUS L418 - Psychology of Music Cr. 3.
MUS L419 - Introduction to Music Therapy Research Methods Cr. 3.
MUS L420 - Clinical Processes in Music Therapy Cr. 3.
MUS L421 - Music Therapy Practicum IV Cr. 1.
MUS L422 - Theoretical Foundations in Music Therapy Cr. 3.
MUS L424 - Music Therapy Internship Cr. 1-2.
MUS U355 - Music and Exceptionality Cr. 4.
MUS X298 - Music Therapy Upper Divisional Skills Examination Cr. 0.

Additional Requirements Credits: 7

MUS K312 - Arranging for Instrumental and Vocal Groups Cr. 2.
MUS L100 - Guitar Cr. 1.
MUS V201 - Voice Class Cr. 1.
PSY 35000 - Abnormal Psychology Cr. 3.

General Electives Credits: 6

The following courses are recommended as general electives:

CSD 11500 - Introduction to Communicative Disorders Cr. 3.
FOLK F101 - Introduction to Folklore Cr. 3.
    or
FOLK F111 - Introduction to World Folk Music Cr. 3.
GERN G231 - Introduction to Gerontology Cr. 3.
HSRV 210
    or
HSRV 21100 - The Dynamics of Group Behavior Cr. 3.
MUS E353 - Improvisation Techniques for Music Therapy Cr. 3.
MUS U410 - Creative Arts, Health, and Wellness Cr. 3.
PHIL 31200 - Medical Ethics Cr. 3.
PSY 23500 - Child Psychology Cr. 3.
    or
PSY 36700 - Adult Development and Aging Cr. 3.
    or

Total Credits: 132–135

Note

Music therapy majors must have at least seven courses in the behavioral/health/natural sciences. General electives may include courses required for the gerontology certificate program, a minor in psychology, or other program minor. See *Department of Music Handbook* for more options and further information.

Nursing (B.S.)

Program: B.S.
Department of Nursing
College of Health and Human Services

Neff Hall B50 ~ 260-481-6816 ~ www.ipfw.edu/nursing

The student learning outcomes for the degree are as follows:

Validate professionalism through awareness, assertiveness, accountability, and advocacy.
Critique leadership skills in directing healthcare activities: influencing and adapting to change.
Evaluate complex issues/problems in the healthcare arena using critical thinking skills.
Integrate the delivery of culturally competent nursing care in a variety of settings through the utilization of the
    Neuman Systems Model, other theories, and research.
Justify effective, therapeutic, culturally sensitive communication techniques that are appropriate for the situation
    and audience.
Evaluate the impact of generated information on healthcare outcomes.

Career Steps

As a graduate of an IPFW pre-licensure nursing program, students will have attained the knowledge and skills needed to provide quality healthcare and the academic credentials required to take the National Council Licensure Examination (NCLEX-RN). Upon successful completion of this examination, the student will be eligible to practice as a registered nurse. The baccalaureate degree (B.S.) graduate is prepared at the professional level to function in a leadership role with other team members in varied and complex healthcare settings.

IPFW General Education Requirements

Area I-Linguistic and Numerical Foundations

Statistic - *See Part 2 General Education Requirements for approved courses*
COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.

Area II-Natural and Physical Sciences

BIOL 20300 - Human Anatomy and Physiology Cr. 4.
CHM 10400 - Living Chemistry Cr. 3.

Area III-The Individual, Culture, and Society (Credits: 6)

NUR 30900 - Transcultural Healthcare Cr. 3.
PSY 12000 - Elementary Psychology Cr. 3.

One of the following Credits: 3

ANTH E105 - Culture and Society Cr. 3.
    or
SOC S161 - Principles of Sociology Cr. 3.

Area IV-Humanistic Thought (Credits: 6)

See Part 2 General Education Requirements for approved courses

Area V-Creative and Artistic Expression (Credits: 3)

See Part 2 General Education Requirements for approved courses

Area VI-Inquiry and Analysis (Credits: 3)

NUR 33900 - Research in Healthcare Cr. 3.

Program Requirements

B.S. Core Credits: 73

NUR (elective) Credits: 3
NUR 10300 - Professional Seminar I: Communications, Ethics and Diversity Cr. 2.
NUR 11500 - Nursing I: Introduction to Nursing Cr. 5.
NUR 13000 - Essential Clinical Skills Cr. 2.
NUR 20200 - Nursing II: Medical-Surgical Nursing of Adults Cr. 6.
NUR 24100 - Psychiatric Mental Health Nursing B Cr. 4.
NUR 30900 - Transcultural Healthcare Cr. 3.
NUR 33400 - Clinical Pathophysiology Cr. 4.
NUR 33600 - Nursing IIIB: Medical-Surgical Nursing of Adults Cr. 7.
NUR 33700 - Statistics and Data Management in Health Sciences Cr. 3.
NUR 33900 - Research in Healthcare Cr. 3.
NUR 34400 - Introduction to Healthcare Informatics Cr. 2.
NUR 34600 - Advanced Health Assessment Cr. 2.
NUR 36800 - Maternity Nursing B Cr. 3.
NUR 37700 - Professional Seminar II: Concepts and Trends in Healthcare Delivery Cr. 3.
NUR 37900 - Caring for Children and Families B Cr. 3.
NUR 41800 - Community/Public Health Nursing CR. 3-5.
NUR 41900 - Advanced Acute Care Nursing Cr. 5.
NUR 42300 - Professional Seminar III: Healthcare Policies and Ethical Issues Cr. 2.
NUR 43300 - Advanced Concepts in Critical Thinking Cr. 1.
NUR 44200 - Leadership in Nursing Cr. 5.

Supporting Course Credits: 49

Credits in communication at the 300-400 level Credits: 3

Credits in humanities (General Education IV) Credits: 6

Credits in elective (General Education V) Credits: 3

BIOL 20300 - Human Anatomy and Physiology Cr. 4.
BIOL 20400 - Human Anatomy and Physiology Cr. 4.
BIOL 22000 - Microbiology for Allied Health Professionals Cr. 4.
CHM 10400 - Living Chemistry Cr. 3.

COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
ENG W233 - Intermediate Expository Writing Cr. 3.
FNN 30300 - Essentials of Nutrition Cr. 3.
PCTX 20100 - Introductory Pharmacology Cr. 3-4.
PSY 12000 - Elementary Psychology Cr. 3.

Choose from the following Credits: 3

SOC S161 - Principles of Sociology Cr. 3.
ANTH E105 - Culture and Society Cr. 3.

Total Credits: 122

Nursing (LPN - B.S.)

Program: LPN - B.S.
Department of Nursing
College of Health and Human Services
Neff Hall B50 ~ 260-481-6816 ~ www.ipfw.edu/nursing

The student learning outcomes for the degree are as follows:

Validate professionalism through awareness, assertiveness, accountability, and advocacy.
Critique leadership skills in directing healthcare activities: influencing and adapting to change.
Evaluate complex issues/problems in the healthcare arena using critical thinking skills
Integrate the delivery of culturally competent nursing care in a variety of settings through the utilization of the NSM, other theories, and research.
Justify effective, therapeutic, culturally sensitive communication techniques that are appropriate for the situation and audience.
Evaluate the impact of generated information on healthcare outcomes.

LPN Mobility

Criteria for LPN Applicants

LPN to RN Mobility Track Seminar will be offered spring semester only. LPN applicants must meet the following requirements:

Hold a current LPN license prior to beginning NUR 336 Nursing IIIB: Med-Surg Nursing of Adults.
Be admitted to IPFW as a degree seeking student.
Be a graduate of an NLNAC or equivalent accredited practical nursing program.
Have a minimum GPA of 3.0 or higher upon graduation from the LPN program.
A minimum GPA does not guarantee admission. The actual GPA necessary for admission varies with the GPA distribution of the applicant pool and the number of available slots for admission.
Have completed at least 8 credit hours of anatomy and physiology within five years of application.
Have completed CHM 10400 or equivalent chemistry within 10 years of application.
Have completed BIOL 22000 or equivalent biology within 5 years of application.

Have credit or accepted transfer credit in the 24 credit hours of identified pre-nursing curriculum with a grade of C or better in each course. Courses may be repeated only one time. Pre-nursing curriculum:

    PSY 12000

    BIOL 22000

    ENG W131

    CHM 10400 (equivalent CHM 11100 and 11200)

    BIOL 20300 and BIOL 20400

    COM 11400

Applicants are required to take an Pre-Admission Examination. The examination is administered on specific dates and at specific times. Applicants pay a testing fee.

Students who earn a grade of "C" or better in NUR 11700 and NUR 33600 will be awarded an additional 13 credit hours for the first year nursing courses. Student may take NUR 24100 prior to NUR 33600, but the awarding of the 13 credit hours does not occur until successful completion of NUR 11700 and NUR 33600.

Students not successful in NUR 11700 and NUR 33600, will not be granted the 13 credit hours for the first year nursing courses and will need to successfully complete NUR 20200 to continue in the nursing program.

Criteria for Dismissal from Pre-Nursing / Ineligibility for Admission to Nursing

A student who earns two grades below C in the same or any combination of 2 courses required in the pre-nursing curriculum will be ineligible for program admission for a period of five years after earning the last grade below C.

NOTE: Students who have previously been dismissed from the IPFW Nursing program, or any nursing degree program, and return under the above LPN admission will be dismissed from the program with a failure of any course required in the nursing curriculum.

LPN - B.S. Credit Awarded

A student who earns a grade of C or better in NUR 117 and NUR 336 will be awarded an additional 13 credit hours for the following first-year nursing courses:

NUR 11500 - Nursing I: Introduction to Nursing Cr. 5.

NUR 13000 - Essential Clinical Skills Cr. 2.

NUR 20200 - Nursing II: Medical-Surgical Nursing of Adults Cr. 6.

Program Requirements

LPN - B.S. Core Credits: 61

NUR (elective) Credits: 3

NUR 10300 - Professional Seminar I: Communications, Ethics and Diversity Cr. 2.

NUR 11700 - LPN Nursing Mobility Seminar Cr. 1.

NUR 24100 - Psychiatric Mental Health Nursing B Cr. 4.

NUR 30900 - Transcultural Healthcare Cr. 3.

NUR 33400 - Clinical Pathophysiology Cr. 4.

NUR 33600 - Nursing IIIB: Medical-Surgical Nursing of Adults Cr. 7.

NUR 33700 - Statistics and Data Management in Health Sciences Cr. 3.

NUR 33900 - Research in Healthcare Cr. 3.

NUR 34400 - Introduction to Healthcare Informatics Cr. 2.

NUR 34600 - Advanced Health Assessment Cr. 2.

NUR 36800 - Maternity Nursing B Cr. 3.

NUR 37700 - Professional Seminar II: Concepts and Trends in Healthcare Delivery Cr. 3.

NUR 37900 - Caring for Children and Families B Cr. 3.

NUR 41800 - Community/Public Health Nursing CR. 3-5.

NUR 41900 - Advanced Acute Care Nursing Cr. 5.
NUR 42300 - Professional Seminar III: Healthcare Policies and Ethical Issues Cr. 2.
NUR 43300 - Advanced Concepts in Critical Thinking Cr. 1.
NUR 44200 - Leadership in Nursing Cr. 5.

NUR Elective

NUR (elective) Credits: 3

Supporting Course Credits: 49

Credits in COM - 300-400 level Cr. 3.
BIOL 20300 - Human Anatomy and Physiology Cr. 4.
BIOL 20400 - Human Anatomy and Physiology Cr. 4.
BIOL 22000 - Microbiology for Allied Health Professionals Cr. 4.
CHM 10400 - Living Chemistry Cr. 3.
COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
ENG W233 - Intermediate Expository Writing Cr. 3.
FNN 30300 - Essentials of Nutrition Cr. 3.
PCTX 20100 - Introductory Pharmacology Cr. 3-4.
PSY 12000 - Elementary Psychology Cr. 3.

Choose from the following Credits: 3

ANTH E105 - Culture and Society Cr. 3.
SOC S161 - Principles of Sociology Cr. 3.

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Total Credits: 110 + 13 earned additional awarded credits = 123

Nursing (RN - B.S.)

Program: RN B.S.
Department of Nursing
College of Health and Human Services

Neff Hall B50 ~ 260-481-6816 ~ www.ipfw.edu/nursing

The student learning outcomes for the degree are as follows:

Validate professionalism through awareness, assertiveness, accountability, and advocacy.

Critique leadership skills in directing healthcare activities: influencing and adapting to change.

Evaluate complex issues/problems in the healthcare arena using critical thinking skills.

Integrate the delivery of culturally competent nursing care in a variety of settings through the utilization of the Neuman Systems Model, other theories, and research.

Justify effective, therapeutic, culturally sensitive communication techniques that are appropriate for the situation and audience.

Evaluate the impact of generated information on healthcare outcomes.

Career Steps

The Bachelor or Science completion (RN-BS) curriculum is uniquely designed for associate degree or diploma registered nurses, working full or part-time, who wish to step up to baccalaureate degree. It is designed to meet the student's professional goals in a flexible environment. Included in the program are two clinical practicums in a variety of acute, long-term, and community settings. Advising is personalized.

Nursing Program Admission Criteria

Admission into the RN–B.S. nursing program requires that the applicant be a graduate of a state-accredited associate degree or diploma program in nursing and have a minimum cumulative GPA of 2.3 on a 4.0 scale. A current Indiana nursing license is required prior to taking the first clinical nursing course.

Credit required from the lower division includes:

34 credits nursing

15 credits in biological and physical sciences - must include 3 credits of chemistry

3 credits humanities (English)

6 credits behavioral sciences (psychology & sociology or anthropology).

Program Requirements

Credits from the A.S. in nursing: 58

Nursing Core Credits: 38

NUR Elective 3 credits

NUR 442, NUR 418, and NUR 419: student may pick 2 of the 3 clinicals

NUR 30900 - Transcultural Healthcare Cr. 3.

NUR 33400 - Clinical Pathophysiology Cr. 4.

NUR 33700 - Statistics and Data Management in Health Sciences Cr. 3.

NUR 33900 - Research in Healthcare Cr. 3.

NUR 34400 - Introduction to Healthcare Informatics Cr. 2.

NUR 34600 - Advanced Health Assessment Cr. 2.

NUR 37700 - Professional Seminar II: Concepts and Trends in Healthcare Delivery Cr. 3.

NUR 41800 - Community/Public Health Nursing CR. 3-5.

NUR 41900 - Advanced Acute Care Nursing Cr. 5.

NUR 42300 - Professional Seminar III: Healthcare Policies and Ethical Issues Cr. 2.

NUR 44200 - Leadership in Nursing Cr. 5.

Supporting Courses Credits: 18

Credits in communication at the 300-400 level Credits: 3

Credits in humanities (General Education IV) Credits: 6

Credits in elective (General Education V) Credits: 3
COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W233 - Intermediate Expository Writing Cr. 3.

Total Credits: 56

Organizational Leadership and Supervision (B.S.)

Program: B.S.
Division of Organizational Leadership and Supervision
College of Engineering, Technology, and Computer Science

Neff Hall 288 ~ 260-481-6420 ~ www.ipfw.edu/ols

The student learning outcomes for the degree are as follows:

Students will demonstrate an understanding of contemporary issues and theories in the areas of leadership, human resources systems and team design and facilitation.

Students will demonstrate an understanding of organizational behavior at the individual, group and organizational levels of analysis using theories derived from several behavioral sciences.

Students will show an awareness of the cultural context of organizations and demonstrate their ability to work with diverse others.

Students will be able to design, lead and participate in a multi-disciplinary team environment.

Students will be able to apply theories to real organizational and leadership problems.

Students will be able to adapt to and to manage organizational transformations and to be informed and engaged participants in such processes.

Students will demonstrate an understanding of the professional and ethical implications and responsibilities of leadership.

Students will demonstrate effective oral and written communication skills.

Students will be able to analyze and solve problems occurring within organizations.

Students will be critical readers and better consumers of behavioral science research.

Students will be able to examine their own behaviors and beliefs about organizations and contrast them with the theories and observations of others.

Students will be able to manage their environment by planning for and using current technology, tools, and processes.

The bachelor's program focuses on leadership roles, the human relations concerns of supervisors and human resource issues. Courses emphasize current and future workplace topics, such as teamwork and work groups, facilitation skills, employee training and development, individual creativity and innovation, workforce diversity, employee health and safety, and overseeing change.

To earn the B.S. with a major in organizational leadership and supervision, you must satisfy the requirements of IPFW (see Part 8) and the College of Engineering, Technology, and Computer Science, Division of

Organizational Leadership and Supervision (see Part 4); earn a grade of C or better in ENG W131, ENG W233 (or approved substitute), and each OLS course; and complete the following requirements:

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
MA 15300 - Algebra and Trigonometry I Cr. 3.
    or
MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society

PSY 12000 - Elementary Psychology Cr. 3.
SOC S161 - Principles of Sociology Cr. 3.

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses

OLS Core and Major Courses

OLS 25200 - Human Relations in Organizations Cr. 3.
OLS 26800 - Elements of Law Cr. 3.
OLS 27400 - Applied Leadership Cr. 3.
OLS 37500 - Training Methods Cr. 3.
OLS 37600 - Human Resources Issues Cr. 3.
OLS 45400 - Gender and Diversity in Management Cr. 3.
OLS 47400 - Conference Leadership Cr. 3.
OLS 47500 - Topics: Contemporary Supervisory Training Issues Cr. 3.
OLS 48500 - Leadership for Team Development Cr. 3.
OLS 49600 - Leading Change: Theory and Practice Cr. 3.

OLS Electives Credits: 9

See the OLS advisor for a list of approved OLS electives.

Technical Support Requirements

BUS A201 - Principles of Financial Accounting Cr. 3.
ECON E200 - Fundamentals of Economics Cr. 3.
ENG W233 - Intermediate Expository Writing Cr. 3.
OLS 28000 - Computer Applications for Supervisors Cr. 3.

Choose from the following: Credits: 3

COM 30300 - Intercultural Communication Cr. 3.
COM 32300 - Business and Professional Speaking Cr. 3.
COM 32400 - Introduction to Organizational Communication Cr. 3.

Choose from the following: Credits: 3

BUS A202 - Principles of Managerial Accounting Cr. 3.
PSY 20100 - Introduction to Statistics in Psychology Cr. 3.
SPEA K300 - Statistical Techniques Cr. 3.
STAT 30100 - Elementary Statistical Methods I Cr. 3.

Concentration Credits: 21

In consultation with IPFW academic departments, OLS has compiled interdisciplinary career concentrations such as:

Human Resource Development
Human Resource Management
Environmental Health and Safety
Electrical Engineering Technology
Government
Health Services
Hotel, Restaurant, Tourism Management
Industrial Engineering Technology
Interior Design
Information Systems
Journalism
Public Relations
Quality Control
Service Industry

A minor may be substituted for the concentration. See the OLS academic advisor for additional information.

Unrestricted Electives Credits: 9

Total Credits: 123

Note

Lists of specific courses required for each career concentration are available at the OLS office (Neff 288). Other options for filling this requirement include using an IPFW-recognized minor as a basis for your concentration area or designing a concentration that reflects your own career goals. Your proposal for an alternative concentration and a formal plan of study must be accepted by an OLS faculty advisor and approved by the OLS chair. If your plan is approved, it will become a formal part of your degree requirements.

Special Academic Regulations for Organizational Leadership and Supervision Degree Programs

Transfer students and students planning to change their major to organizational leadership and supervision must have a GPA of 2.00 or higher to be admitted into the program. A cumulative GPA of 2.0 or above is also required to remain in the division. To graduate with an OLS B.S. degree students must have a cumulative GPA of 2.0 or above and a major GPA of 2.5 or above. The major GPA consists of all required and elective courses prefixed with OLS.

OLS, business, and technical courses taken more than 10 years ago will not count towards your degree requirements.

Students receiving credit for cooperative education experience can use these credits as unrestricted electives only.

If you have not registered for degree-applicable courses as an IPFW OLS major for four consecutive semesters (excluding summer), you must satisfy the degree requirements specified in the IPFW Bulletin that includes your year of re-entry.

Philosophy (B.A.)

Program: B.A.
Department of Philosophy
College of Arts and Sciences

Liberal Arts Building 23~ 260-481-6366 ~ www.ipfw.edu/phil

The student learning outcomes for the degree are as follows:

> Possess general knowledge and critical appreciations of western and non-western philosophical thought, its
> principles branches and their history.
> Acquisition and honing of close reading, creative writing, and critical thinking skills.

The major in philosophy is a traditional humanities and liberal-arts program covering the principal branches and divisions of philosophy including their history. The philosophy major is good preparation for graduate study in philosophy. The philosophy major also serves as a preprofessional program for the ministry, law, or health sciences. It is often encouraged for a student to be a double major in philosophy and something else.

To earn the Bachelor of Arts with a major in philosophy, you must fulfill the requirements of IPFW (see Part 8) and the College of Arts and Sciences (see Part 4), and complete the following courses:

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of the following: Credits: 3

ENG W131 - Elementary Composition I Cr. 3.
ENG W140 - Elementary Composition Honors Cr. 3.

One of the following: Credits: 3

MA 15300 - Algebra and Trigonometry I Cr. 3.
MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III–The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought

See Part 2 General Education Requirements for approved courses

Additional credits in Area IV Credits: 3
PHIL 11000 - Introduction to Philosophy Cr. 3.
   (credits included in Major Courses, below)

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (not in PHIL) Credits: 3

See Part 2 General Education Requirements for approved courses

College of Arts and Sciences Requirements

English Writing

ENG W233 - Intermediate Expository Writing Cr. 3.

Foreign Language

Requirements in Arts and Sciences Part B Credits: 14

Distribution (not in PHIL)

Requirements in Arts and Sciences Part C Credits: 9

Cultural Studies

Requirements in Arts and Sciences Part D
PHIL 11000 - Introduction to Philosophy Cr. 3.
    (credits included in Major Courses, below)

Core and Concentration (Major) Courses

PHIL 11000 - Introduction to Philosophy Cr. 3.
PHIL 11100 - Ethics Cr. 3.
PHIL 15000 - Principles of Logic Cr. 3.
PHIL 30300 - History of Modern Philosophy Cr. 3.
PHIL 45000 - Symbolic Logic Cr. 3.

Credits in two of the following: Credits: 6

PHIL 30100 - History of Ancient Philosophy Cr. 3.
PHIL 30200 - History of Medieval Philosophy Cr. 3.
PHIL 30400 - 19th Century Philosophy Cr. 3.

Additional credits in PHIL courses, including one at the 500 level Credits: 9

General Elective Courses

Sufficient additional credits to bring the total to 124.

Total Credits: 124

Honors in Philosophy

A student may earn an honors B.A. degree in philosophy by achieving an overall GPA of 3.5 and a philosophy GPA of 3.5 or higher; conducting a two-semester (6 credit) research project; preparing a senior thesis based on the research project; and giving an oral presentation of the thesis research. The senior thesis committee must be established one semester before graduation.

Physics (B.S.)

Program: B.S.
Department of Physics
College of Arts and Sciences

The student learning outcomes for the degree are as follows:

> Will reason about physically significant problems conceptually and mathematically
> Will solve complex physical problems using sophisticated mathematical techniques
> Will interpret mathematical solutions conceptually and physically
> Will investigate physical phenomena using multiple approaches
> Will use computation and computer modeling to investigate physical phenomena and solve physical problems
> Will communicate in appropriate scientific media and forms

This program helps you prepare for graduate study in physics or for careers in industry. You may also be interested in physical science teaching certification (listed separately in this Bulletin).

If you wish to transfer to physics from another degree program, you must have an average of C or better in all physics and mathematics courses you have completed and not more than one grade below C in those courses.

To remain in the degree program, you must maintain a GPA of 2.0 or higher in physics courses. You may take a minor of 24–30 credits in a second science or in engineering. For this minor, a plan of study is developed with your advisor. You may substitute courses in the minor for PHYS 361. Typical minor programs chosen by physics majors are mathematics and electrical engineering.

To earn the B.S. with a major in physics, you must fulfill the requirements of IPFW (see Part 8) and the College of Arts and Sciences (see Part 4), in addition to the following requirements:

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

> COM 11400 - Fundamentals of Speech Communication Cr. 3.
> MA 16500 - Analytic Geometry and Calculus I Cr. 4.
>   (credits included in Supporting Courses, below)

One of the following: Credits: 3

> ENG W131 - Elementary Composition I Cr. 3.
> ENG W140 - Elementary Composition Honors Cr. 3.

Area II—Natural and Physical Sciences

> CHM 11500 - General Chemistry Cr. 4.
>   (credits included in Supporting Courses, below)
> PHYS 15200 - Mechanics Cr. 5.
>   (credits included in Major Courses, below)

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

Area V—Creative and Artistic Expression Credits: 3

Area VI—Inquiry and Analysis (not in PHYS) Credits: 3

College of Arts and Sciences Requirements

English Writing

ENG W233 - Intermediate Expository Writing Cr. 3.

Foreign Language

Requirements in Arts and Sciences Part B Credits: 8

Core and Concentration (Major) Courses

PHYS 15200 - Mechanics Cr. 5.
PHYS 25100 - Heat, Electricity, and Optics Cr. 5.
PHYS 31000 - Intermediate Mechanics Cr. 4.
PHYS 32200 - Optics Cr. 3.
PHYS 33000 - Intermediate Electricity and Magnetism Cr. 3.
PHYS 33100 - Electricity and Magnetism II Cr. 3.
PHYS 34200 - Modern Physics Cr. 3.
PHYS 34300 - Modern Physics Laboratory Cr. 1.
PHYS 34500 - Optics Laboratory I Cr. 1.
PHYS 34600 - Advanced Laboratory I Cr. 1.
PHYS 36100 - Electronics for Scientists Cr. 4.
PHYS 51500 - Thermal and Statistical Physics Cr. 3.
PHYS 52000 - Mathematical Physics Cr. 3.
PHYS 55000 - Introduction to Quantum Mechanics Cr. 3.

One of the following: Credits: 3

Additional credits in mathematics
PHYS 32500 - Scientific Computing Cr. 3.

Supporting Courses

CHM 11500 - General Chemistry Cr. 4.
CHM 11600 - General Chemistry Cr. 4.
MA 16500 - Analytic Geometry and Calculus I Cr. 4.
MA 16600 - Analytic Geometry and Calculus II Cr. 4.

MA 26100 - Multivariate Calculus Cr. 4.
MA 35100 - Elementary Linear Algebra Cr. 3.
MA 36300 - Differential Equations Cr. 3.

General Elective Courses

Sufficient additional credits to bring the total to 124.

Total Credits: 124

Physics Teaching (B.S.)

Program: Physics Teaching B.S.
Department of Physics
College of Arts and Sciences

Kettler Hall 126B ~ 260-481-6306 ~ www.ipfw.edu/physics/

The student learning outcomes for the degree are as follows:

Will reason about physically significant problems conceptually and mathematically
Will solve complex physical problems using sophisticated mathematical techniques
Will interpret mathematical solutions conceptually and physically
Will use computation and computer modeling to investigate physical phenomena and solve physical problems
Will communicate in appropriate scientific media and forms
Will be aware of effective teaching techniques for physics
Will be aware of appropriate physics laboratory methods

This program helps you prepare for teaching physical science in the high schools. You may also be interested in physical science teaching certification (listed separately in this Bulletin).

You should work closely with your academic advisor to ensure completion of general-education requirements for teacher certification. To be certified to teach, you must have a GPA of 2.0 or higher in the general-education areas of humanities and social and behavioral sciences. Additionally, you must have a GPA of 2.5 or higher in your major and the professional-education course area with an overall GPA of 2.5 or higher. Each professional-education course must be completed with a grade of C or better.

The School of Education requires that you first complete EDUA F300, EDUC W200/M101, and EDUC K201 before you are permitted to take professional education courses. Prior to your junior year, you must successfully complete the Pre-Professional Skills Test (PPST) before admission to the teacher education program. The PRAXIS II Specialty Area Exam in physics must be completed before or during the student-teaching semester, normally in your senior year.

If you wish to transfer to physics teaching from another degree program, you must have an average of C or better in all physics and mathematics courses you have completed, and not more than one grade below C in those courses.

To earn the B.S. with a major in physics teaching, you must fulfill the requirements of IPFW (see Part 8) and the College of Arts and Sciences (see Part 4) in addition to the following requirements:

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

COM 11400 - Fundamentals of Speech Communication Cr. 3.
MA 16500 - Analytic Geometry and Calculus I Cr. 4.
    Credits: 0
    (credits included in Supporting Courses, below)

One of the following: Credits: 3

ENG W131 - Elementary Composition I Cr. 3.
ENG W140 - Elementary Composition Honors Cr. 3.

Area II—Natural and Physical Sciences

CHM 11500 - General Chemistry Cr. 4.
    Credits: 0
    (credits included in Supporting Courses, below)
PHYS 15200 - Mechanics Cr. 5.
    Credits: 0
    (credits included in Major Courses, below)

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (not in PHYS) Credits: 3

See Part 2 General Education Requirements for approved courses

College of Arts and Sciences Requirements

English Writing

ENG W233 - Intermediate Expository Writing Cr. 3.

Core and Concentration (Major) Courses

PHYS 15200 - Mechanics Cr. 5.
PHYS 25100 - Heat, Electricity, and Optics Cr. 5.
PHYS 31000 - Intermediate Mechanics Cr. 4.
PHYS 32200 - Optics Cr. 3.

PHYS 33000 - Intermediate Electricity and Magnetism Cr. 3.
PHYS 33100 - Electricity and Magnetism II Cr. 3.
PHYS 34200 - Modern Physics Cr. 3.
PHYS 34300 - Modern Physics Laboratory Cr. 1.
PHYS 34500 - Optics Laboratory I Cr. 1.
PHYS 34600 - Advanced Laboratory I Cr. 1.
PHYS 51500 - Thermal and Statistical Physics Cr. 3.
PHYS 52000 - Mathematical Physics Cr. 3.
PHYS 55000 - Introduction to Quantum Mechanics Cr. 3.

Supporting Courses

CHM 11500 - General Chemistry Cr. 4.
CHM 11600 - General Chemistry Cr. 4.
MA 16500 - Analytic Geometry and Calculus I Cr. 4.
MA 16600 - Analytic Geometry and Calculus II Cr. 4.
MA 26100 - Multivariate Calculus Cr. 4.
MA 35100 - Elementary Linear Algebra Cr. 3.
MA 36300 - Differential Equations Cr. 3.

Teacher Education Program Requirements

Prior to being admitted to the teacher education program, you must complete the Initial Requirement courses and pass the PPST.

Initial Requirements

EDUA F300 - Topical Exploration in Education Cr. 1-3.
    Credits: 2
EDUC K201 - Schools, Society, and Exceptionality Cr. 1-3.
    Credits: 1
EDUC M101 - Laboratory/Field Experience Cr. 0-3.
    Credits: 0
EDUC W200 - Using Computers for Education Cr. 1.
    Credits: 1

Block I

EDUC H340 - Education and American Culture Cr. 2-3.
    Credits: 3
EDUC K206 - Teaching Methods for Students with Special Needs Cr. 1-3.
    Credits: 3
EDUC M201 - Laboratory/Field Experience Cr. 0-3.
    Credits: 0
EDUC P250 - General Educational Psychology Cr. 1-4.
    Credits: 3

Block II

EDUC M301 - Laboratory/Field Experience Cr. 0-3.

EDUC M449 - Methods of Teaching Science in the Secondary Schools Cr. 3.
EDUC P253 - Educational Psychology for Secondary Teachers Cr. 1-4.
EDUC Q400 - Man and Environment: Instructional Methods Cr. 3.
EDUC X401 - Critical Reading in the Content Area Cr. 1-3.

Student Teaching

EDUC M480 - Student Teaching in the Secondary School Cr. 1-16.
    Credits: 12
EDUC M501 - Lab/Field Experience Cr. 0-3.
    Credits: 0
EDUC M470 - Practicum Cr. 3-8.
    (recommended for Middle School Endorsement area) Credits: 4

Total Credits: 125

Political Science (B.A.)

Program: B.A.
Department of Political Science
College of Arts and Sciences

Liberal Arts Building 209 ~ 260-481-6686 ~ www.ipfw.edu/pols

The student learning outcomes for the degree are as follows:

Identify basic and explain advanced key terms and concepts in the major fields of the discipline

Political Thought and Philosophy
American Government and Politics
Comparative Government
International Relations
Quantitative and Qualitative Methods
Demonstrate the ability to:

Write/communicate clearly and effectively.
Use quantitative and qualitative research tools appropriately.
Research and analyze political issues and engage in problem solving
Behave ethically and professionally in keeping with disciplinary standards for personal integrity, academic
honesty, respect for diversity, and civil dissent and discourse
To be prepared for:

Those careers outlined in the latest edition of the APSA *Careers and the Study of Political Science*, and especially
careers in government/public service/political system or related areas.
Graduate study/law school.
Becoming active and involved citizens and leaders in the local community, the nation, and beyond.
To earn the B.A. with a major in political science, you must fulfill the requirements of IPFW (see Part 8) and
the College of Arts and Sciences (see Part 4), and complete the following courses:

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of the following: Credits: 3

ENG W131 - Elementary Composition I Cr. 3.
ENG W140 - Elementary Composition Honors Cr. 3.

One of the following: Credits: 3

MA 15300 - Algebra and Trigonometry I Cr. 3.
MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society

See Part 2 General Education Requirements for approved courses

Additional credits in Area III Credits: 3

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved coursesp

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (not in POLS) Credits: 3

See Part 2 General Education Requirements for approved courses

College of Arts and Sciences Requirements

English Writing

POLS Y205 - Elements of Political Analysis Cr. 3.

Foreign Language

Requirements in Arts and Sciences Part B Credits: 14

Distribution (not in POLS)

Requirements in Arts and Sciences Part C Credits: 9

Cultural Studies

Requirements in Arts and Sciences Part D Credits: 6

Core and Concentration (Major) Courses

POLS Yxxx - additional POLS credits, 100 level or above Cr: 6.
POLS Yxxx - additional POLS credits, 200 level or above Cr: 6.
POLS Yxxx - additional POLS credits, 300 level or above Cr: 9.
POLS Y205 - Elements of Political Analysis Cr. 3.
POLS Y395 - Quantitative Political Analysis Cr. 3.
POLS Y490 - Senior Seminar in Political Science Cr. 3.

General Elective Courses

Sufficient additional credits to bring the total to 124.

Total Credits: 124

Teacher Certification

You may be certified as a teacher of social studies after fulfilling all requirements for the B.A. with a major in political science and all requirements for teacher certification. Full information on teacher-certification requirements is available from the School of Education.

Prior to your junior year, the School of Education requires that you successfully complete EDUA F300, EDUC W200/M101, and EDUC K201 and the Pre-Professional Skills Test (PPST) before admission to the teacher education program. The PRAXIS II Specialty Area Exam must be completed before or during the student-teaching semester, normally in your senior year.

Notes

Neither Y398 (Internship in Urban Institutions) nor Y482 (Practicum) may count for more than 6 credits for the major; these two courses together may not count for more than 9 credits for the major.

Psychology (B.A.)

Program: B.A.
Department of Psychology
College of Arts and Sciences

Neff Hall 388 ~ 260-481-6403 ~ www.ipfw.edu/psyc

The student learning outcomes for the degree are as follows:

Students will demonstrate knowledge of the major theoretical approaches, findings, and historical trends in psychology.

Students will demonstrate the ability to understand the major research methods in psychology, including ethical standards, design, data analysis, and interpretation.

Students will demonstrate the ability to think critically and to use the scientific approach to understand behavior.

Students will demonstrate the ability to apply concepts, information, and skills learned in psychology courses to their lives and work.

Students will demonstrate the ability to effectively locate and evaluate sources of information.

Students will demonstrate the ability to express themselves effectively in the discourse of the discipline.

Students will demonstrate the ability to understand people from a diverse range of backgrounds and varying demographic characteristics such as age, race, disability, sexual orientation, class, ethnicity, religion, and cognitive abilities.

Students will demonstrate the ability to make decisions about future employment or graduate education.

The Bachelor of Arts with a major in psychology is for the person seeking a career in psychology or a closely related field. The degree program provides a liberal-arts education in psychology as well as preparation for graduate school. A current IPFW student must have a cumulative GPA of 2.0 to declare psychology as a major. After two consecutively-enrolled semesters in which a psychology major's cumulative GPA falls below 2.0, the student will no longer be eligible to be a psychology major. Two subsequent consecutive semesters with the cumulative GPA at or above 2.0 will permit a student to petition for reinstatement as a psychology major.

To earn the B.A. with a major in psychology, you must fulfill the requirements of IPFW (see Part 8) and the College of Arts and Sciences (see Part 4), in addition to fulfilling the following requirements:

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of the following: Credits: 3

ENG W131 - Elementary Composition I Cr. 3.
ENG W140 - Elementary Composition Honors Cr. 3.

One of the following: Credits: 3

MA 15300 - Algebra and Trigonometry I Cr. 3.
MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society

See Part 2 General Education Requirements for approved courses

Additional credits in Area III Credits: 3
PSY 12000 - Elementary Psychology Cr. 3.
    Credit: 0
    (credits included in Major Courses, below)

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (not in PSY) Credits: 3

See Part 2 General Education Requirements for approved courses

College of Arts and Sciences Requirements

English Writing

ENG W233 - Intermediate Expository Writing Cr. 3.
    (or other approved writing courses)

Foreign Language

Requirements in Arts and Sciences Part B Credits: 14

Distribution (not in PSY)

Requirements in Arts and Sciences Part C   Credits: 9

Cultural Studies

Requirements in Arts and Sciences Part D Credits: 6

Core and Concentration (Major) Courses

PSY 10000 - Introduction to the Science and Fields of Psychology Cr. 1.
PSY 12000 - Elementary Psychology Cr. 3.
PSY 20100 - Introduction to Statistics in Psychology Cr. 3.
PSY 20300 - Introduction to Research Methods in Psychology Cr. 3.
PSY 31400 - Introduction to Learning Cr. 3.
PSY 32900 - Psychobiology II: Principles of Psychobiological Psychology Cr. 3.
PSY 41600 - Cognitive Psychology Cr. 3.

Three of the following: Credits: 9

PSY 23500 - Child Psychology Cr. 3.
    Credit not given for both PSY 23500 and PSY 36900
PSY 24000 - Introduction to Social Psychology Cr. 3.
PSY 35000 - Abnormal Psychology Cr. 3.
PSY 36900 - Development Across the Lifespan Cr. 3.
    Credit not given for both PSY 23500 and PSY 36900
PSY 42000 - Introduction to Personality Theory Cr. 3.

One of the following: Credits: 3

PSY 44100 - Advanced Research in Personality and Social Psychology Cr. 3.
PSY 48000 - Field Experience in Psychology Cr. 3.
PSY 49000 - Practicum in Psychotherapy Cr. 3.
PSY 49900 - Honors Thesis in Psychology Cr. 3.
PSY 54000 - History of Psychology Cr. 3.
PSY 55000 - Introduction to Clinical Psychology Cr. 3.

Additional credits in psychology at the 200 level or above Credits: 9

3 credits must be taken at IPFW

Successful completion of the Major Field Test in Psychology

General Elective Courses

Sufficient additional credits to bring the total to 124.

Total Credits: 124

Honors in Psychology

A student may earn an honors degree in psychology by completing all of the requirements toward the B.A., achieving an overall GPA of 3.5 or higher, and conducting a two-semester independent research project. In the first semester of independent research the student is to complete three credits of PSY 49800 or PSY 59000. In the second semester, the student is to complete an honors thesis, PSY 49900. As part of the honors thesis, an oral presentation to the department is required.

Public Affairs (B.S.P.A.)

Program: Bachelor of Science in Public Affairs

Neff Hall 260 ~ 260-481-6351 ~ www.ipfw.edu/SPEA/

The student learning outcomes for the degree are as follows:

Students should be able to:

Understand fiscal management of public agencies.

Apply techniques of revenue administration, debt management, and public budgeting.

Understand origins, processes, and impact of law in the creation and implementation of public policy.

Understand the capabilities of management science.

Appropriately use quantitative approaches for dealing with management and policy problems.

The B.S.P.A. degree program provides a background in the liberal arts and a focus on public affairs. This degree offers majors in criminal justice, environmental policy, health services administration, legal studies, and public management. In addition, a specialized study major may be developed with the approval of a faculty advisor and the program director to meet special career needs. Internships are available and strongly encouraged to provide qualified students with the opportunity to apply classroom theory and techniques to real-life experiences. The internship program is designed for maximum flexibility; internships can be full or part time, paid or unpaid, credit or noncredit.

The DPEA curriculum is divided into four categories — general education, public affairs core, a major area, and general electives. The B.S.P.A. requires a minimum of 120 credit hours with a 2.0 or higher cumulative grade-point average and a 2.3 or higher grade-point average in core and major courses. No more than 90 credits may be transferred from other accredited institutions (60 credits from a junior college). No more than 10 credits can be taken by correspondence through the IU School of Continuing Studies. A maximum of 10 credits may be applied from military experience, and a maximum of 12 credits may be awarded for police academy training completed within the past year. Courses taken to meet specific DPEA degree requirements cannot be used to satisfy any other DPEA degree requirement, but may be double-counted to satisfy the IPFW general-education distribution requirements.

To earn the Bachelor of Science in Public Affairs at IPFW, you must fulfill the requirements of IPFW (see Part 8) and the Division of Public and Environmental Affairs, and complete the following requirements:

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations Credits: 9

Area I - Reading/Writing Credits: 3

One of the following:

ENG W131 - Elementary Composition I Cr. 3.
ENG W140 - Elementary Composition Honors Cr. 3.

Area I - Listening/Speaking Credits: 3

COM 11400 - Fundamentals of Speech Communication Cr. 3.

Area I - Quantitative Reasoning Credits: 3

See Part 2 General Education Requirements for approved courses

Note on double counting:
Some courses may be used to fulfill both Quantitative Reasoning and the DPEA Quantitative Methods requirements.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Note on double counting:
Some courses may be used to fulfill both Natural and Physical Sciences Requirements and the DPEA Natural Sciences Requirements.

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Note on double counting
Some courses may be used to fulfill both The Individual, Culture, and Society requirements and DPEA Arts and Humanities requirements or DPEA Social and Behavioral Sciences requirements.

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Note on double counting
Some courses may be used to fulfill both Humanistic Thought and the DPEA Arts and Humanities requirements.

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Note on double counting
Some courses may be used to fulfill both the Creative and Artistic Expression requirement and a DPEA Arts and Humanities requirement or a Social and Behavioral Science requirement.

Area VI—Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses

Note on double counting
Some courses may be used to fulfill both the Inquiry and Analysis requirement and a DPEA Arts and Humanities requirement or a Social and Behavioral Sciences requirement.

Division of Public and Environmental Affairs

I. General Education Courses Credits: 53

A. Communication Credits: 3

COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.

One of the following courses:

ENG W232 - Introduction to Business Writing Cr. 3.
ENG W233 - Intermediate Expository Writing Cr. 3.

B. Quantitative Methods Credits: 9

Three credits in computer literacy skills from the following:

ETCS 10600 - Introduction to Computers Cr. 3.
   Or
BUS K200 - Computer Literacy Concepts for Business Cr. 0.
BUS K211 - Spreadsheets for Business Cr. 1.
BUS K212 - Introduction to Database Management Cr. 1.
BUS K213 - Internet Literacy for Business Cr. 1.

One of the following mathematics courses:

MA 15300 - Algebra and Trigonometry I Cr. 3.
MA 21300 - Finite Mathematics I Cr. 3.
MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.

One of the following statistics courses:

ECON E270 - Introduction to Statistical Theory in Economics and Business I Cr. 3.
SOC S351 - Social Statistics Cr. 3.
SPEA K300 - Statistical Techniques Cr. 3.
STAT 30100 - Elementary Statistical Methods I Cr. 3.

C. Arts and Humanities Credits: 12

HIST H105 - American History I Cr. 3.
HIST H106 - American History II Cr. 3.

Arts & Humanities Electives

Choose two courses (six credits) from at least two of the following subject areas:

Classical Studies, Communication, English, Film, Fine Arts, Folklore, Foreign Language, History, Honors (Humanities only), Music, Philosophy, Theatre

D. Natural Sciences Credits: 8

Select Natural Science credits totaling 8:

A mininum of 6 credits must be from the following University approved General Education Area II courses.

ANTH B200 - Bioanthropology Cr. 3.
AST A100 - The Solar System Cr. 3.
BIOL 10000 - Introduction to the Biological World Cr. 3.
BIOL 10001 - Introduction to the Biological World Laboratory Cr. 1.
BIOL 25000 - Women and Biology Cr. 3.
BIOL 32700 - Biology of Aging Cr. 3.

CHM 10400 - Living Chemistry Cr. 3.
CHM 11100 - General Chemistry Cr. 3.
CHM 12000 - Chemistry and Art Cr. 3.
GEOG G107 - Physical Systems of the Environment Cr. 3.
GEOG G109 - Weather and Climate Cr. 3.
GEOL G100 - General Geology Cr. 3-5.
GEOL G103 - Earth Science: Materials and Processes Cr. 3.
GEOL G104 - Earth Science: Evolution of the Earth Cr. 3.
GEOL G210 - Oceanography Cr. 3.
GEOL L100 - General Geology Laboratory Cr. 1-2.
IDIS G102 - Freshman Seminar/Physical and Natural World Cr. 3.
PHYS 10500 - Sound and Music Cr. 3.
PHYS 11500 - Introduction to Lasers Cr. 3.
PHYS 12000 - Physics of Sports Cr. 3.
PHYS 12500 - Light and Color Cr. 3.
PHYS 12700 - Physics for Computer Graphics and Animation Cr. 3.
PHYS 13100 - Concepts in Physics I Cr. 3.
PHYS 13200 - Concepts in Physics II Cr. 3.
PHYS 13500 - The First Three Minutes Cr. 3.
PHYS 13600 - Chaos and Fractals Cr. 3.

E. Social and Behavioral Sciences Credits: 15

ECON E201 - Introduction to Microeconomics Cr. 3.
ECON E202 - Introduction to Macroeconomics Cr. 3.
SPEA V371 - Financing Public Affairs Cr. 3.

Social & Behavioral Science Electives

Choose two courses (six credits) from the following subject areas:

Anthropology, Criminal Justice (for non-Criminal Justice majors), Economics, Geography (selected), Journalism, Linguistics, Political Science, Psychology, Sociology, Women's Studies

II. Public Affairs Core Credits: 12

A grade of C or better is required in each of these courses.

SPEA E162 - Environment and People Cr. 3.
SPEA H120 - Contemporary Health Issues Cr. 1-3.
SPEA J101 - The American Criminal Justice System Cr. 3.
SPEA V170 - Introduction to Public Affairs Cr. 3.

III. Major Credits: 27 to 30

A. Criminal Justice Credits: 30 - Charles "Bud" Meeks Criminal Justice Program

SPEA J201 - Theoretical Foundations of Criminal Justice Policies Cr. 3.
SPEA J202 - Criminal Justice Data, Methods, and Resources Cr. 3.

SPEA J301 - Substantive Criminal Law Cr. 3.
SPEA J306 - The Criminal Courts Cr. 3.
SPEA J321 - American Policing Cr. 3.
SPEA J331 - Corrections Cr. 3.
SPEA J439 - Crime and Public Policy Cr. 3.

Additional SPEA Electives Approved By Advisor Credits: 9

A maximum of 6 credits may be earned in SPEA V380, Internship in Public Affairs.

SPEA V380 - Internship in Public Affairs Cr. 1-6.

B. Environmental Policy Credits: 27

SPEA E400 - Topics in Environmental Studies Cr. 3.
SPEA H316 - Environmental Health Science Cr. 3.
SPEA H416 - Environmental Health Policy Cr. 3.
SPEA V376 - Law and Public Policy Cr. 3.

Either of the following environmental science courses:

BIOL 34900 - Environmental Science Cr. 3.
SPEA E272 - Introduction to Environmental Sciences Cr. 3.

12 credits chosen from the following:

A maximum of 6 credits may be earned in SPEA V380, Internship in Public Affairs.

ANTH E320 - Indians of North America Cr. 3.
ANTH E401 - Ecology and Culture Cr. 3.
BIOL 21700 - Intermediate Ecology Cr. 3.
COM 31600 - Controversy in American Society Cr. 3.
ENTM 20600 - General Applied Entomology Cr. 2.
ENTM 20700 - General Applied Entomology Laboratory Cr. 1.
GEOL G300 - Environmental and Urban Geology Cr. 3.
LSTU L240 - Occupational Health and Safety Cr. 3.
PHIL 32800 - Ethics and Animals Cr. 3.
POLS Y367 - International Law Cr. 3.
SOC S309 - The Community Cr. 3.
SOC S360 - Topics in Social Policy Cr. 3.
SOC S333 - Collective Behavior and Social Movements Cr. 3.
SPEA V365 - Urban Development and Planning Cr. 3.
SPEA V372 - Government Finance and Budgets Cr. 3.
SPEA V380 - Internship in Public Affairs Cr. 1-6.
SPEA V390 - Readings in Public Affairs Cr. 1-3.
SPEA V450 - Contemporary Issues in Public Affairs Cr. 1-3.

SPEA V465 - Geographic Information Systems for Public and Environmental Affairs Cr. 3.
SPEA V490 - Directed Research in Public and Environmental Affairs Cr. 1-3.

C. Health Services Administration Credits: 27

SPEA H320 - Health Systems Administration Cr. 3.
SPEA H322 - Principles of Epidemiology Cr. 3.
SPEA H352 - Health Finance and Budgeting Cr. 3.
SPEA H402 - Hospital Administration Cr. 3.
SPEA H411 - Chronic and Long-Term Care Administration Cr. 3.

One of the following:

SPEA H371 - Human Resource Management in Healthcare Facilities Cr. 3.
SPEA V366 - Managing Behavior in Public Organizations Cr. 3.
SPEA V373 - Human Resources Management in the Public Sector Cr. 3.

Additional 9 credits of DPEA electives approved by advisor

A maximum of 6 credits may be earned in SPEA V380, Internship in Public Affairs.

D. Legal Studies Credits: 30

POLS Y211 - Introduction to Law Cr. 3.
POLS Y304 - Constitutional Law Cr. 3.
POLS Y305 - Constitutional Rights and Liberties Cr. 3.
SPEA V376 - Law and Public Policy Cr. 3.
SPEA V377 - Legal Process and Contemporary Issues in America Cr. 3.
SPEA V405 - Public Law and the Legislative Process Cr. 3.

Elective Courses Credits: 12

Choose 4 courses from the following. A minimum of 6 credits must be SPEA courses.

BUS L303 - Commercial Law II Cr. 3.
HIST A310 - Survey of American Indians I Cr. 3.
HIST A311 - Survey of American Indians II Cr. 3.
HIST A349 - Afro-American History Cr. 3.
HIST H260 - History of Women in the United States Cr. 3.
JOUR J300 - Communications Law Cr. 3.
PHIL 26000 - Philosophy and Law Cr. 3.
POLS Y328 - Women and the Law Cr. 3.
SPEA H441 - Legal Aspects of Healthcare Administration Cr. 3.
SPEA J301 - Substantive Criminal Law Cr. 3.
SPEA J302 - Procedural Criminal Law Cr. 3.
SPEA V406 - Public Law and the Electoral Process Cr. 3.
SPEA V456 - Topics in Public Law Cr. 3.

E. Public Management Credits: 27

SPEA V263 - Public Management Cr. 3.
SPEA V264 - Urban Structure and Policy Cr. 3.
SPEA V348 - Management Science Cr. 3.
SPEA V366 - Managing Behavior in Public Organizations Cr. 3.
SPEA V372 - Government Finance and Budgets Cr. 3.
SPEA V376 - Law and Public Policy Cr. 3.

Three Additional SPEA Electives Approved By Advisor Credits: 9

A maximum of 6 credits may be earned in SPEA V380, Internship in Public Affairs.

SPEA V380 - Internship in Public Affairs Cr. 1-6.

F. Specialized Study Major Credits: 27

This major is intended for students, often working professionals, with special needs regarding a course of study in Public Affairs. The courses for the major must be approved by a faculty advisor in the Division of Public and Environmental Affairs. The minimum guidelines are nine courses at the 300-400 level, four of which must be SPEA courses.

IV. General Electives Credits: 25–28

Additional courses of interest should be selected to raise the total credits to the required 120 for the BSPA degree. Students majoring in Criminal Justice or Legal Studies need an additional 25 credits minimum. Students majoring in Environmental Policy, Health Services Administration, Public Management, or Specialized Study need an additional 28 credits minimum.

Total Credits: 120

Secondary Education-Adolescence/Young Adulthood Concentration (B.S.Ed.)

Program: B.S.Ed.
Department of Educational Studies
School of Education

Neff Hall 250 ~ 260-481-6441~ www.ipfw.edu/educ

The student learning outcomes for the degree are as follows:

Becoming more caring, humane and functional citizens in a global, multicultural, democratic society

Improving the human condition by creating positive learning environments

Becoming change agents by demonstrating reflective professional practice

Solving client problems through clear, creative analyses

Assessing client performance, creating and executing effective teaching, counseling, and educational leadership by utilizing a variety of methodologies reflecting current related research

Utilizing interdisciplinary scholarship, demonstrating technology and critical literacies, and effectively communicating with all stakeholders.

The B.S.Ed. in secondary education is intended to prepare students for successful careers as teachers of children in middle school/junior high and high school settings. The secondary education degree is divided into two concentrations: early adolescence, for middle school/junior high settings, and adolescence/young adulthood, for high school settings. Pre-service teachers must choose one or both concentrations to complete the degree. Upon satisfactory completion of the program, and the other requirements listed under Teacher Licensure in the Special Academic Regulations, you are eligible to apply for an Indiana teaching license.

To earn the B.S.Ed. in secondary education with a concentration in adolescence/young adulthood, you must satisfy the requirements of IPFW (see Part 8) and the School of Education.

School Setting: High School (grades 9-12)

General Education Credits: 45

School of Education Credits: 34

Content Area Majors, variable credits depending on the program

Elective credits variable, but must be at least 124.

IPFW General Education Requirements Credits: 45

Area I—Linguistic and Numerical Foundations Credits: 12

COM 11400 - Fundamentals of Speech Communication Cr. 3.
   (grade of B or better required)
ENG W131 - Elementary Composition I Cr. 3.
   (grade of B or better required)
ENG W233 - Intermediate Expository Writing Cr. 3.

Any college-level math including: Credits: 3

MA 15300 - Algebra and Trigonometry I Cr. 3.
MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 9

See Part 2 General Education Requirements for approved courses

Biology Credits: 3

Two of the following: Credits: 6

ANTH B200 - Bioanthropology Cr. 3.
   astronomy, chemistry, geology, or physics

Area III—The Individual, Culture, and Society Credits: 9

See Part 2 General Education Requirements for approved courses

One of the following: Credits: 3

American history or world history or humanities (FWAS H201 or H202)

One of the following: Credits: 3

political science or sociology

One of the following: Credits: 3

anthropology, business, economics, folklore, journalism, linguistics, psychology, or public and environmental affairs

Area IV—Humanistic Thought Credits: 9

See Part 2 General Education Requirements for approved courses

English Literature Credits: 3

One of the following: Credits: 3

INTR 22000 - Architecture and Urban Form Cr. 3.
or fine arts or music

One of the following: Credits: 3

film or philosophy or theatre

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI- Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses

School of Education Requirements

Initial Requirements:

Prior to being admitted to the Block 1: Teacher Education program you must complete the following initial requirements:

PPST (Pre-Professional Skills Test)
EDUA F300 - Topical Exploration in Education Cr. 1-3.
Course Title: Invitation to Teaching - Credits: 2
EDUC K201 - Schools, Society, and Exceptionality Cr. 1-3.
Credits: 1
EDUC M101 - Laboratory/Field Experience Cr. 0-3.
Credits: 0

EDUC W200 - Using Computers for Education Cr. 1.
    (a grade of B or better is required)

Block 1: Teacher Education

EDUC H340 - Education and American Culture Cr. 2-3.
    Credits: 3
EDUC K206 - Teaching Methods for Students with Special Needs Cr. 1-3.
    Credits: 3
EDUC M201 - Laboratory/Field Experience Cr. 0-3.
    Credits: 0
EDUC P250 - General Educational Psychology Cr. 1-4.
    Credits: 3

Block 2: Professional Education (P: Block 1)

EDUC M201 - Laboratory/Field Experience Cr. 0-3.
    Credits: 0
EDUC P253 - Educational Psychology for Secondary Teachers Cr. 1-4.
    Credits: 3
EDUC X401 - Critical Reading in the Content Area Cr. 1-3.
    Credits: 3

One methods course from your content major: Credits: 3

EDUC M443 - Methods of Teaching High School Social Studies Cr. 3.
EDUC M445 - Methods of Teaching Foreign Languages Cr. 3.
EDUC M447 - Methods of Teaching High School English Cr. 3.
EDUC M448 - Methods of Teaching High School Mathematics Cr. 2-4.
    Credits: 3
EDUC M449 - Methods of Teaching Science in the Secondary Schools Cr. 3.

and

EDUC M401 - Laboratory/Field Experience Cr.0-3.
    Credits: 0

Block 3: Teaching Major

In addition to the above courses, you must complete one content area major. See list of majors and courses below.

Student Teaching

EDUC M501 *Portfolio* Cr. 0
EDUC M480 - Student Teaching in the Secondary School Cr. 1-16.
    Credits: 12

Optional:

EDUC M470 - Practicum Cr. 3-8.
    (for Middle School Endorsement area)
    Credits: 4

Electives (Variable)

Total Credits: 124

Core Content Area Majors

Below is a list of teaching content area majors.

Earth and Space Science Teaching Major (39–40 credits)

AST A100 - The Solar System Cr. 3.
CHM 11500 - General Chemistry Cr. 4.
EDUC Q400 - Man and Environment: Instructional Methods Cr. 3.
GEOL G104 - Earth Science: Evolution of the Earth Cr. 3.
GEOL G210 - Oceanography Cr. 3.
GEOL G211 - Introduction to Paleobiology Cr. 3.
GEOL G221 - Introductory Mineralogy Cr. 3-4.
    Credits: 3
GEOL G222 - Introduction to Petrology Cr. 3-4.
GEOL G334 - Principles of Sedimentology and Stratigraphy Cr. 3-4.
GEOL G420 - Regional Geology Field Trip Cr. 1-2.
    Credits: 2

One of the following: Credits 3-4

GEOG G107 - Physical Systems of the Environment Cr. 3.
    w/GEOL L100
GEOL G100 - General Geology Cr. 3-5.
    w/GEOL L100
GEOL G103 - Earth Science: Materials and Processes Cr. 3.
GEOL L100 - General Geology Laboratory Cr. 1-2.

Two of the following: Credits: 6

GEOG G315 - Environmental Conservation Cr. 3.
GEOL G300 - Environmental and Urban Geology Cr. 3.
GEOL G415 - Geomorphology Cr. 3-4.

French Teaching Major (46 credits)

FREN F3xx-4xx - Literature Electives (300–400 level) Credits: 6
FREN F3xx-4xx - Electives (300–400 level) Credits: 9
FREN F111 - Elementary French I Cr. 4.
FREN F112 - Elementary French II Cr. 4.

FREN F203 - Second-Year French I Cr. 3.
FREN F204 - Second-Year French II Cr. 3.
FREN F213 - Second-Year French Composition Cr. 3.
ILCS I300 - Methods of Research and Criticism Cr. 3.
FREN F317 - French Language Skills I Cr. 3.
FREN F318 - French Language Skills II Cr. 3.
FREN F325 - Oral French for Teachers Cr. 3-8.
     Credits: 3

One of the following: Credits: 3

FREN F463 - Civilisation Francaise I Cr. 3.
FREN F464 - Civilisation Francaise II Cr. 3.

German Teaching Major (44 credits)

GER 3XX - Literature Elective (300 level) Credits: 3
GER G3xx - Elective (300 level) Credits: 3
GER G4xx - Electives (400 level) Credits: 12
GER G111 - Elementary German I Cr. 4.
GER G112 - Elementary German II Cr. 4.
GER G203 - Second-Year German I Cr. 3.
GER G204 - Second-Year German II Cr. 3.
ILCS I300 - Methods of Research and Criticism Cr. 3.
GER G318 - German Language Skills I Cr. 3-5.
     Credits: 3
GER G325 - German for Teachers Cr. 3.

One of the following: Credits: 3

GER G362 - Introduction to Contemporary Germany Cr. 3.
GER G363 - Deutsche Kulturgeschichte Cr. 3.
GER G463 - German Culture Cr. 3.
GER G464 - Kultur Und Gesellschaft Cr. 3.

Language Arts (English) Teaching Major (39 credits)

ENG L391 - Literature for Young Adults Cr. 3.
ENG W103 - Introductory Creative Writing Cr. 3.
ENG W400 - Issues in Teaching Writing Cr. 3.

One of the following in writing: Credits: 3

ENG L202 - Literary Interpretation Cr. 3.
ENG W233 - Intermediate Expository Writing Cr. 3.

Two of the following in language study Credits: 6

ANTH L200 - Language and Culture Cr. 3.

ENG G205 - Introduction to the English Language Cr. 3.
ENG G206 - Introduction to the Study of Grammar Cr. 3.
ENG G301 - History of the English Language Cr. 3.
LING L103 - Introduction to the Study of Language Cr. 3.
LING L360 - Language in Society Cr. 3.

One of the following in pre-1700 British literature: Credits: 3

ENG L220 - Introduction to Shakespeare Cr. 3.
ENG L301 - Critical and Historical Survey of English Literature I Cr. 3.
ENG L304 - Old English Language and Literature Cr. 3.
ENG L305 - Chaucer Cr. 3.
ENG L306 - Middle English Literature Cr. 3.
ENG L308 - Elizabethan Drama and Its Background Cr. 3.
ENG L309 - Elizabethan Poetry Cr. 3.
ENG L315 - Major Plays of Shakespeare Cr. 3.
ENG L317 - English Poetry of the Early 17th Century Cr. 3.
ENG L318 - Milton Cr. 3.

One of the following in post-1700 British literature: Credits: 3

ENG L302 - Critical and Historical Survey of English Literature II Cr. 3.
ENG L322 - English Literature, 1660-1789 Cr. 3.
ENG L332 - Romantic Literature Cr. 3.
ENG L335 - Victorian Literature Cr. 3.
ENG L345 - 20th Century British Poetry Cr. 3.
ENG L346 - 20th Century British Fiction Cr. 3.
ENG L347 - British Fiction to 1800 Cr. 3.
ENG L348 - 19th Century British Fiction Cr. 3.
ENG L369 - Studies in British and American Authors Cr. 3.

One of the following in American literature: Credits: 3

ENG L250 - American Literature Before 1865 Cr. 3.
ENG L251 - American Literature Since 1865 Cr. 3.
ENG L354 - American Literature Since 1914 Cr. 3.
ENG L357 - 20th Century American Poetry Cr. 3.
ENG L358 - 20th Century American Fiction Cr. 3.
ENG L369 - Studies in British and American Authors Cr. 3.
ENG L372 - Contemporary American Fiction Cr. 3.
ENG L381 - Recent Writing Cr. 3.

One of the following in ethnic, minority, or non-Western: Credits: 3

ENG L107 - Masterpieces of Asia Cr. 3.
ENG L108 - Introduction to Contemporary Literature Cr. 3.
ENG L364 - Native American Literature Cr. 3.
ENG L369 - Studies in British and American Authors Cr. 3.
ENG L379 - American Ethnic and Minority Literature Cr. 3.
ENG L381 - Recent Writing Cr. 3.

One of the following in Western literature, other than British or American: Credits: 3

CLAS C205 - Classical Mythology Cr. 3.
CLAS C405 - Comparative Mythology Cr. 3-4.
   Credits: 3
ENG L101 - Western World Masterpieces I: Ancient to Renaissance Cr. 3.
ENG L362 - Modern Drama Cr. 3.

One of the following in mass communications, film, or journalism: Credits: 3

COM 21000 - Debating Public Issues Cr. 3.
COM 25000 - Mass Communication and Society Cr. 3.
FILM K101 - Introduction to Film Cr. 3.
JOUR C200 - Mass Communications Cr. 3.
JOUR J110 - Foundations of Journalism and Mass Communication Cr. 3.

One elective in English, linguistics, or mass communications (other than COM 114) Credits: 3

Social Studies Teaching Major (51–60 credits)

Must complete all course work in 3 content areas plus one course from each of the other two content areas (diversified credit) to complete the major.

Economics (15 credits)

Economics elective Credits: 3

Economics elective (300–400 level) Credits: 3
ECON E201 - Introduction to Microeconomics Cr. 3.
ECON E202 - Introduction to Macroeconomics Cr. 3.

One of the following: Credits: 3

ECON E321 - Intermediate Microeconomic Theory Cr. 3.
ECON E322 - Intermediate Macroeconomic Theory Cr. 3.

Government and Citizenship (15 credits)

Political science electives (300–400 level) Credits: 6
POLS Y103 - Introduction to American Politics Cr. 3.

Two of the following: Credits: 6

POLS Y105 - Introduction to Political Theory Cr. 3.

POLS Y107 - Introduction to Comparative Politics Cr. 3.
POLS Y109 - Introduction to International Relations Cr. 3.

Historical Perspectives (24 credits)

American Civilization

HIST elective (American) Credits: 3

HIST elective (American) (300–400 level) Credits: 3
HIST H105 - American History I Cr. 3.
HIST H106 - American History II Cr. 3.

World Civilization

HIST elective (non-American) Credits: 3

HIST elective (non-American) (300-400 level) Credits: 3
HIST H113 - History of Western Civilization I Cr. 3.
HIST H114 - History of Western Civilization II Cr. 3.

Psychology (15 credits)

PSY 12000 - Elementary Psychology Cr. 3.

One of the following: Credits 3

PSY 23500 - Child Psychology Cr. 3.
PSY 24000 - Introduction to Social Psychology Cr. 3.
PSY 36900 - Development Across the Lifespan Cr. 3.

One of the following: Credits 3

PSY 31400 - Introduction to Learning Cr. 3.
PSY 32900 - Psychobiology II: Principles of Psychobiological Psychology Cr. 3.
PSY 41600 - Cognitive Psychology Cr. 3.

One PSY Elective Credits: 3

PSY 35000 - Abnormal Psychology Cr. 3.
PSY 42000 - Introduction to Personality Theory Cr. 3.

Sociology (15 credits)

SOC S161 - Principles of Sociology Cr. 3.
SOC electives (any level) Credits: 6
SOC electives (300–400 level) Credits: 6

Diversified Credits: 6

Spanish Teaching Major (53 credits)

SPAN S4XX Elective (400 level) Credits: 3
SPAN S111 - Elementary Spanish I Cr. 4.
SPAN S112 - Elementary Spanish II Cr. 4.
SPAN S203 - Second-Year Spanish I Cr. 3.
SPAN S204 - Second-Year Spanish II Cr. 3.
SPAN S275 - Hispanic Culture and Conversation Cr. 3.
ILCS I300 - Methods of Research and Criticism Cr. 3.
SPAN S301 - The Hispanic World I Cr. 3.
SPAN S302 - The Hispanic World II Cr. 3.
SPAN S311 - Spanish Grammar Cr. 3.
SPAN S312 - Written Composition in Spanish Cr. 3.
SPAN S317 - Spanish Conversation and Diction Cr. 3.
SPAN S488 - Spanish for Teachers Cr. 3.

One of the following: Credits: 3

SPAN S407 - Survey of Spanish Literature I Cr. 3.
SPAN S408 - Survey of Spanish Literature II Cr. 3.

One of the following: Credits: 3

SPAN S425 - Spanish Phonetics Cr. 3.
SPAN S426 - Introduction to Spanish Linguistics Cr. 3.
SPAN S428 - Applied Spanish Linguistics Cr. 3.

One of the following: Credits: 3

SPAN S471 - Spanish-American Literature I Cr. 3.
SPAN S472 - Spanish-American Literature II Cr. 3.

One of the following: Credits: 3

SPAN S411 - Spain: The Cultural Context Cr. 3.
SPAN S412 - Spanish America: The Cultural Context Cr. 3.
SPAN S413 - Hispanic Culture in the U.S. Cr. 3.

Notes

Students completing the adolescence/young adulthood concentration may also add additional middle school/junior high teaching areas by completing any of the middle school/junior high endorsements and completing a middle school practicum.

Other IPFW departments offer degrees that lead to teacher certification. They include art education, biology, chemistry, mathematics, music education, and physics. Please refer to these departments in their appropriate Part 4 sections of this Bulletin for more information and course requirements.

Secondary Education-Early Adolescence Concentration (B.S.Ed.)

Program: B.S.Ed.
Department of Educational Studies
School of Education

Neff Hall 250 ~ 260-481-6441~ www.ipfw.edu/educ

The student learning outcomes for the degree are as follows:

Becoming more caring, humane and functional citizens in a global, multicultural, democratic society

Improving the human condition by creating positive learning environments

Becoming change agents by demonstrating reflective professional practice

Solving client problems through clear, creative analyses

Assessing client performance, creating and executing effective teaching, counseling, and educational leadership by utilizing a variety of methodologies reflecting current related research

Utilizing interdisciplinary scholarship, demonstrating technology and critical literacies, and effectively communicating with all stakeholders.

The B.S.Ed. in secondary education is intended to prepare students for successful careers as teachers of children in middle school/junior high and high school settings. The secondary education degree is divided into two concentrations: early adolescence, for middle school/junior high settings, and adolescence/young adulthood, for high school settings. Pre-service teachers must choose one or both concentrations to complete the degree. Upon satisfactory completion of the program, and the other requirements listed under Teacher Licensure in the Special Academic Regulations, you are eligible to apply for an Indiana teaching license.

To earn the B.S.Ed. in secondary education with an early adolescence concentration, you must satisfy the requirements of IPFW (see Part 8) and the School of Education.

School Setting: Middle School/Junior High (grades 6-8)

General Education Credits: 45

School of Education Credits: 34

Content Area Minors (must select 2) Credits: 48

Some content area minor credits will overlap with general education credits.

Language Arts Credits: 24

Mathematics Credits: 24

Science Credits: 24

Social Studies Credits: 24

Elective credits variable, but must be at least 124.

IPFW General Education Requirements Credits: 45

Area I—Linguistic and Numerical Foundations Credits: 12

COM 11400 - Fundamentals of Speech Communication Cr. 3.
    (a grade of B or better is required)
ENG W131 - Elementary Composition I Cr. 3.
    (a grade of B or better is required)
ENG W233 - Intermediate Expository Writing Cr. 3.

Any college-level math including: Credits: 3

MA 15300 - Algebra and Trigonometry I Cr. 3.
MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 9

See Part 2 General Education Requirements for approved courses

Biology Credits: 3

Two of the following: Credits: 6
ANTH B200 - Bioanthropology Cr. 3.
    astronomy, chemistry, geology, or physics

Area III—The Individual, Culture, and Society Credits: 9

See Part 2 General Education Requirements for approved courses

One of the following: Credits: 3

American history or world history or humanities (FWAS H201 or H202)

One of the following: Credits: 3

political science or sociology

One of the following: Credits: 3

anthropology, business, economics, folklore, journalism, linguistics, psychology, or public and environmental affairs

Area IV—Humanistic Thought Credits: 9

See Part 2 General Education Requirements for approved courses

English literature Credits: 3

One of the following: Credits: 3

INTR 22000 - Architecture and Urban Form Cr. 3.
     or fine arts or music

One of the following: Credits: 3

film or philosophy or theatre

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses

School of Education Requirements

Initial Requirements:

PPST (Pre-Professional Skills Test)
EDUA F300 - Topical Exploration in Education Cr. 1-3.
     Course Title: Invitation to Teaching - Credits: 2
EDUC K201 - Schools, Society, and Exceptionality Cr. 1-3.
     Credits: 1
EDUC M101 - Laboratory/Field Experience Cr. 0-3.
     Credits: 0
EDUC W200 - Using Computers for Education Cr. 1.
     (a grade of B or better is required)

Block 1: Teacher Education

EDUC H340 - Education and American Culture Cr. 2-3.
     Credits: 3
EDUC K206 - Teaching Methods for Students with Special Needs Cr. 1-3.
     Credits: 3
EDUC M201 - Laboratory/Field Experience Cr. 0-3.
     Credits: 0
EDUC P250 - General Educational Psychology Cr. 1-4.
     Credits: 3

Block 2: Professional Education

EDUC M201 - Laboratory/Field Experience Cr. 0-3.
     Credits: 0
EDUC M401 - Laboratory/Field Experience Cr.0-3.
     Credits: 0

EDUC P253 - Educational Psychology for Secondary Teachers Cr. 1-4.
    Credits: 3
EDUC S405 - The Middle and Junior High School Cr. 3.
EDUC X401 - Critical Reading in the Content Area Cr. 1-3.
    Credits: 3

Block 3: Core Content Area Minors

In addition to the above courses, you must complete 24 credit hours in two of four core content area minors (See course requirements for core content area minors listed below)

Student Teaching

EDUC M501 - Portfolio Credits: 0
EDUC M480 - Student Teaching in the Secondary School Cr. 1-16.
    Credits: 12

Optional:

EDUC M470 - Practicum Cr. 3-8.
    (for an additional concentration area)
    Credits: 4

Electives (Variable)

Total Credits: 124

Core Content Area Minors (24 credits)

In addition to the above courses, you must complete 24 credit hours in two of four core content area minors.

Language Arts (24 credits)

British literature elective (300 level or higher) Credits: 3

American literature elective (300 level or higher) Credits: 3

One of the following: Credits: 3

ENG L101 - Western World Masterpieces I: Ancient to Renaissance Cr. 3.
ENG L102 - Western World Masterpieces II: Renaissance to Modern Cr. 3.

One of the following: Credits: 3

ENG L202 - Literary Interpretation Cr. 3.
ENG W233 - Intermediate Expository Writing Cr. 3.

One of the following: Credits: 3

ENG G205 - Introduction to the English Language Cr. 3.
ENG G206 - Introduction to the Study of Grammar Cr. 3.
LING L103 - Introduction to the Study of Language Cr. 3.

One of the following: Credits: 3

COM 25000 - Mass Communication and Society Cr. 3.
JOUR C200 - Mass Communications Cr. 3.

One of the following: Credits: 3

ENG L390 - Children's Literature Cr. 3.
ENG L391 - Literature for Young Adults Cr. 3.

One of the following: Credits: 3

EDUC E340 - Methods of Teaching Reading I Cr. 2-3.
    Credits: 3
EDUC X401 - Critical Reading in the Content Area Cr. 1-3.
    Credits: 3

Mathematics (24 credits)

Computer science elective Credits: 3

Mathematics, computer science, or statistics electives Credits: 2–3
MA 10100 - Mathematics for Elementary Teachers I Cr. 3.
MA 10200 - Mathematics for Elementary Teachers II Cr. 3.
MA 10300 - Mathematics for Elementary Teachers III Cr. 3.
MA 15300 - Algebra and Trigonometry I Cr. 3.
    (or waiver)
STAT 12500 - Communicating with Statistics Cr. 3.
    (or higher)

One of the following: Credits: 3-4

MA 16500 - Analytic Geometry and Calculus I Cr. 4.
MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.

Science (24 credits)

Science electives Credits: 0-2
AST A100 - The Solar System Cr. 3.
BIOL 10000 - Introduction to the Biological World Cr. 3.
    and
BIOL 10001 - Introduction to the Biological World Laboratory Cr. 1.
CHM 11100 - General Chemistry Cr. 3.

GEOL G100 - General Geology Cr. 3-5.

One of the following: Credits: 3

BIOL 34900 - Environmental Science Cr. 3.
GEOG G315 - Environmental Conservation Cr. 3.
GEOL G300 - Environmental and Urban Geology Cr. 3.

One of the following: Credits: 3-5

PHYS 13100 - Concepts in Physics I Cr. 3.
PHYS 15200 - Mechanics Cr. 5.

One of the following: Credits: 3

EDUC Q200 - Introduction to Scientific Inquiry Cr. 1-3.
    Credits: 3
EDUC Q400 - Man and Environment: Instructional Methods Cr. 3.

Social Studies (24 credits)

American History Credits: 3

Sociology Credits: 3

Political Science Credits: 3

Social Studies electives Credits: 6
PSY 12000 - Elementary Psychology Cr. 3.

One of the following: Credits: 3

ECON E200 - Fundamentals of Economics Cr. 3.
ECON E201 - Introduction to Microeconomics Cr. 3.

One of the following: Credits: 3

FWAS H201 - Humanities I: The Ancient World Cr. 3.
FWAS H202 - Humanities II: Foundations of the Modern Western World Cr. 3.
HIST H232 - The World in the 20th Century Cr. 3.

Sociology (B.A.)

Program: B.A.
Department of Sociology
College of Arts and Sciences

Liberal Arts Building 241 ~ 260-481-6842 ~ www.ipfw.edu/sociology

The student learning outcomes for the degree are as follows:

Theoretical: Graduates will be able to analyze and evaluate major theoretical perspectives in sociology.

Graduates should be able to identify the general theoretical orientation.
Graduates should be able to apply theoretical analyses of social structure and social processes.
Graduates should be able to interpret social issues in terms of the major theoretical perspectives.

Methodological: Graduates will be able to utilize and evaluate research methods and data analysis used in sociology.

Graduates should be able to demonstrate appropriate use of both quantitative and qualitative methodologies.

Graduates should be able to evaluate different research methods.

Graduates should be able to interpret the results of data gathering.
Graduates should be able to demonstrate appropriate use of statistical techniques.
Graduates should be able to demonstrate competent use of statistical software.

Critical Thinking: Graduates will be able to evaluate critically arguments and situations.

Graduates should be able to critically evaluate theoretical arguments.
Graduates should be able to develop evidence-based arguments.
Graduates should be able to critically evaluate published research.

Communication Skills: Graduates will be able to communicate effectively in both written and oral form.

Graduates should be able to write a research report.
Graduates should be able to develop an oral research report.

Professional Ethics: Graduates will be knowledgeable of appropriate ethics concerning both professional conduct and the use of human subjects.

Graduates should demonstrate a mastery of the ethical standards for conducting research with human subjects.
Graduates should demonstrate an understanding of the ethical standards of the American Sociological Association.

Courses in sociology provide an understanding of society and of the relationship between the individual and society. Studies in sociology help to prepare you for graduate school and careers in the social services, law, human relations, criminal justice, government, education, and mass media.

Although a minor is not required, study in an outside area is recommended. Anthropology, computer science, economics, history, labor studies, political science, psychology, organizational leadership and supervision, and women's studies support the major well.

To earn a B.A. with a major in sociology, you must fulfill the requirements of IPFW (see Part 8) and the College of Arts and Sciences (see Part 4), and satisfactorily complete the following courses.

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of the following: Credits: 3

ENG W131 - Elementary Composition I Cr. 3.
ENG W140 - Elementary Composition Honors Cr. 3.

One of the following: Credits: 3

MA 15300 - Algebra and Trigonometry I Cr. 3.
MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society

See Part 2 General Education Requirements for approved courses

Additional credits in Area III Credits: 3
SOC S161 - Principles of Sociology Cr. 3.

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (not in SOC) Credits: 3

See Part 2 General Education Requirements for approved courses

College of Arts and Sciences Requirements

English Writing

SOC S260 - Intermediate Sociological Writing Cr. 3.
    (credits included in Major Courses, below)

Foreign Language

Requirements in Arts and Sciences Part B Credits: 14

Distribution (not in SOC)

Requirements in Arts and Sciences Part C Credits: 9

Cultural Studies

Requirements in Arts and Sciences Part D Credits: 6

Core and Concentration (Major) Courses

SOC S161 - Principles of Sociology Cr. 3.
SOC S260 - Intermediate Sociological Writing Cr. 3.
SOC S340 - Social Theory Cr. 3.
SOC S351 - Social Statistics Cr. 3.
SOC S352 - Methods of Social Research Cr. 3.
SOC S494 - Field Experience in Sociology Cr. 3.
    or
SOC S470 - Senior Seminar Cr. 3.

Sociology Elective Courses Credits: 15

All additional sociology elective courses must be at the 200 level or above; 9 of the 15 credit hours must be at the 300 level or above.

General Elective Courses

Sufficient additional credits to bring the total to 124.

Total Credits: 124

Spanish (B.A.)

Program: B.A.
Department of International Language and Culture Studies
College of Arts and Sciences

Liberal Arts Building 267 ~ 260-481-6836 ~ www.ipfw.edu/ilcs/

The student learning outcomes for the degree are as follows:

Acquire a broad foundation in language, literature, and culture in preparation for graduate studies or for a career where proficiency in a foreign language and international perspectives are important assets;

Achieve the ACTFL intermediate-high level in speaking, demonstrate the ability to recognize and analyze grammatical and usage errors in own and others' writing;

Develop an increased understanding of what it means to belong to a culture and awareness of how culture affects other interconnected issues of identity;

Demonstrate the ability to think critically about these issues and how they shape intercultural communication.

To earn the B.A. with a major in Spanish, you must fulfill the requirements of IPFW (see Part 8) and the College of Arts and Sciences (see Part 4) and satisfactorily complete the following requirements:

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of the following: Credits: 3

ENG W131 - Elementary Composition I Cr. 3.
ENG W140 - Elementary Composition Honors Cr. 3.

One of the following: Credits: 3

MA 15300 - Algebra and Trigonometry I Cr. 3.
MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society

LING L103 - Introduction to the Study of Language Cr. 3.

One of the following: Credits: 3

HIST H232 - The World in the 20th Century Cr. 3.
INTL I200 - Introduction to International Studies: Emerging Global Visions Cr. 3.

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (not in SPAN) Credits: 3

Recommended:

ANTH E335 - Ancient Civilizations of Mesoamerica Cr. 3.
ANTH P370 - Ancient Cultures of South America Cr. 3.
LING L360 - Language in Society Cr. 3.
WOST W301 - International Perspectives on Women Cr. 3.

College of Arts and Sciences Requirements

English Writing Credits: 0

(requirement is satisfied by ILCS I300, listed below)

Foreign Language (10–14 credits)

SPAN S111 - Elementary Spanish I Cr. 4.
SPAN S112 - Elementary Spanish II Cr. 4.
    or
SPAN S113 - Accelerated First Year Spanish Cr. 4.

Additional Foreign Language Requirements

SPAN S203 - Second-Year Spanish I Cr. 3.
SPAN S204 - Second-Year Spanish II Cr. 3.

Distribution (not in SPAN)

Requirements in Arts and Sciences Part C Credits: 9

Cultural Studies

Credits in Western tradition Credits: 3

Non-Western culture requirement may be satisfied with one of the following courses Credits: 0

SPAN S412 - Spanish America: The Cultural Context Cr. 3.
SPAN S471 - Spanish-American Literature I Cr. 3.
SPAN S472 - Spanish-American Literature II Cr. 3.
SPAN S479 - Mexican Literature Cr. 3.
SPAN S480 - Argentine Literature Cr. 3.

Core and Concentration (Major) Courses

ILCS I300 - Methods of Research and Criticism Cr. 3.
SPAN S275 - Hispanic Culture and Conversation Cr. 3.
SPAN S301 - The Hispanic World I Cr. 3.
SPAN S302 - The Hispanic World II Cr. 3.
SPAN S311 - Spanish Grammar Cr. 3.
SPAN S312 - Written Composition in Spanish Cr. 3.
SPAN S317 - Spanish Conversation and Diction Cr. 3.

One of the following courses in Spanish linguistics: Credits: 3

SPAN S425 - Spanish Phonetics Cr. 3.
SPAN S426 - Introduction to Spanish Linguistics Cr. 3.
SPAN S428 - Applied Spanish Linguistics Cr. 3.
SPAN S495 - Hispanic Colloquium Cr. 1-3.
    The S495 course is a rotating topics course and may only count in the area of the specific topic.

One of the following courses in Spanish literature: Credits: 3

SPAN S407 - Survey of Spanish Literature I Cr. 3.
SPAN S408 - Survey of Spanish Literature II Cr. 3.
SPAN S495 - Hispanic Colloquium Cr. 1-3.
  The S495 course is a rotating coursen and may only count in the area of the specific topic.

One of the following courses in Spanish-American literature: Credits: 3

SPAN S471 - Spanish-American Literature I Cr. 3.
SPAN S472 - Spanish-American Literature II Cr. 3.
SPAN S495 - Hispanic Colloquium Cr. 1-3.
  The S495 course is a rotating coursen and may only count in the area of the specific topic.

Additional credits in 400-level Spanish civilization, language, or literature courses Credits: 6

General Elective Courses

Sufficient additional credits to bring the total to 124.

Total Credits: 124

Spanish with Teacher Certification (B.A.)

Program: B.A. with Teacher Certification
Department of International Language and Culture Studies
College of Arts and Sciences

Liberal Arts Building 267 ~ 260-481-6836 ~ www.ipfw.edu/ilcs/

The student learning outcomes for the degree are as follows:

Acquire a broad foundation in language, literature, culture and a knowledge of current methodologies in foreign language pedagogy;
Achieve the ACTFL intermediate-high level in speaking, demonstrate the ability to recognize and analyze grammatical and usage errors in own and others' writing;
Develop an increased understanding of what it means to belong to a culture and awareness of how culture affects other interconnected issues of identity;
Demonstrate the ability to think critically about these issues and how they shape intercultural communication.
Students pursuing a B.A. with a major in Spanish with teacher certification must fulfill the requirements of IPFW (see Part 8), the College of Arts and Sciences (see Part 4), and the School of Education (see Part 4) and satisfactorily complete the following requirements.

Prior to your junior year, you must successfully complete the Pre-Professional Skills Test (PPST) before admission to the teacher education program. The Praxis II, Spanish: Content Knowledge test must be completed before or during the student-teaching semester, normally in your senior year.

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of the following: Credits: 3

ENG W131 - Elementary Composition I Cr. 3.
ENG W140 - Elementary Composition Honors Cr. 3.

One of the following: Credits: 3

MA 15300 - Algebra and Trigonometry I Cr. 3.
MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society Credits: 6

LING L103 - Introduction to the Study of Language Cr. 3.

One of the following: Credits: 3

HIST H232 - The World in the 20th Century Cr. 3.
INTL I200 - Introduction to International Studies: Emerging Global Visions Cr. 3.

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (not in SPAN) Credits: 3

Recommended:

ANTH E335 - Ancient Civilizations of Mesoamerica Cr. 3.
ANTH P370 - Ancient Cultures of South America Cr. 3.
LING L360 - Language in Society Cr. 3.
WOST W301 - International Perspectives on Women Cr. 3.

College of Arts and Sciences Requirements

English Writing Credits: 0

(requirement is satisfied by ILCS I300, listed below)

Foreign Language (10–14 credits)

SPAN S111 - Elementary Spanish I Cr. 4.
SPAN S112 - Elementary Spanish II Cr. 4.
   or
SPAN S113 - Accelerated First Year Spanish Cr. 4.

Additional Foreign Language Requirements

SPAN S203 - Second-Year Spanish I Cr. 3.
SPAN S204 - Second-Year Spanish II Cr. 3.

Distribution (not in SPAN)

Requirements in Arts and Sciences Part C Credits: 9

Cultural Studies

Credits in Western tradition Credits: 3

Non-Western culture requirement may be satisfied with the following courses Credits: 0

SPAN S412 - Spanish America: The Cultural Context Cr. 3.
SPAN S471 - Spanish-American Literature I Cr. 3.
SPAN S472 - Spanish-American Literature II Cr. 3.
SPAN S479 - Mexican Literature Cr. 3.
SPAN S480 - Argentine Literature Cr. 3.

Core and Concentration (Major) Courses

ILCS I300 - Methods of Research and Criticism Cr. 3.
SPAN S275 - Hispanic Culture and Conversation Cr. 3.
SPAN S301 - The Hispanic World I Cr. 3.
SPAN S302 - The Hispanic World II Cr. 3.
SPAN S311 - Spanish Grammar Cr. 3.
SPAN S312 - Written Composition in Spanish Cr. 3.
SPAN S317 - Spanish Conversation and Diction Cr. 3.
SPAN S488 - Spanish for Teachers Cr. 3.

One of the following courses in Spanish linguistics: Credits: 3

SPAN S425 - Spanish Phonetics Cr. 3.

SPAN S426 - Introduction to Spanish Linguistics Cr. 3.
SPAN S428 - Applied Spanish Linguistics Cr. 3.

One of the following courses in Spanish literature: Credits: 3

SPAN S407 - Survey of Spanish Literature I Cr. 3.
SPAN S408 - Survey of Spanish Literature II Cr. 3.

One of the following courses in Spanish-American literature: Credits: 3

SPAN S471 - Spanish-American Literature I Cr. 3.
SPAN S472 - Spanish-American Literature II Cr. 3.

One of the following culture/civilization courses: Credits: 3

SPAN S411 - Spain: The Cultural Context Cr. 3.
SPAN S412 - Spanish America: The Cultural Context Cr. 3.
SPAN S413 - Hispanic Culture in the U.S. Cr. 3.

Additional credits in 400-level Spanish civilization, language, or literature courses Credits: 3

Professional Education

Prior to being admitted to the teacher education program, you must complete the Inital Requirement courses and pass the PPST.

Initial Requirements

EDUC K201 - Schools, Society, and Exceptionality Cr. 1-3.
    Credits: 1
EDUC M101 - Laboratory/Field Experience Cr. 0-3.
    Credits: 0
EDUC W200 - Using Computers for Education Cr. 1.
    Credits: 1
EDUA F300 - Topical Exploration in Education Cr. 1-3.

Block I

EDUC H340 - Education and American Culture Cr. 2-3.
    Credits: 3
EDUC K206 - Teaching Methods for Students with Special Needs Cr. 1-3.
    Credits: 3
EDUC M201 - Laboratory/Field Experience Cr. 0-3.
    Credits: 0
EDUC P250 - General Educational Psychology Cr. 1-4.
    Credits: 3

Block II

EDUC M301 - Laboratory/Field Experience Cr. 0-3.
EDUC M445 - Methods of Teaching Foreign Languages Cr. 3.
EDUC P253 - Educational Psychology for Secondary Teachers Cr. 1-4.
EDUC X401 - Critical Reading in the Content Area Cr. 1-3.

Student Teaching

EDUC M480 - Student Teaching in the Secondary School Cr. 1-16.
    Credits: 12
EDUC M501 - Lab/Field Experience Cr. 0-3.
    Credits: 0

Middle School Certification (Recommended)

EDUC M470 - Practicum Cr. 3-8.
    Credits: 4

General Elective Courses

Sufficient additional credits to bring the total to 124.

Total Credits: 124

Theatre (B.A.)

Program: B.A.
Department of Theatre
College of Visual and Performing Arts

Williams Theatre 128 ~ 260-481-6551 ~ www.ipfw.edu/vpa/theatre

The student learning outcomes for the degree are as follows:

Demonstrate an understanding of the creative process using the vocabulary of the appropriate discipline.
Perform or create a work of personal expression and bring the work to fruition using applicable skills.
Articulate a reflective and critical evaluation of their own and other's efforts using written and/or oral communication.

To earn the B.A. with a major in theatre, you must satisfy the requirements of IPFW (see Part 8) and the College of Visual and Performing Arts (see Part 4), complete the following courses, earn a grade of C or better in each theatre course, and fulfill additional requirements specified in the theatre student handbook:

IPFW General Education Requirements (36 credits)

Area I—Linguistic and Numerical Foundations Credits: 9

Reading/Writing Credits: 3

Quantitative Reasoning Credits: 3
COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
MA 15300 - Algebra and Trigonometry I Cr. 3.
    Or
MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
    Or
STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

    May not use THTR-prefixed course to fulfill requirement

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

    May not use THTR-prefixed course to fulfill requirement.

Area VI—Inquiry and Analysis Credits: 3

See Part 2 General Education Requirements for approved courses

Writing Requirements

    ENG W233 - Intermediate Expository Writing Cr. 3.

Theatre Core Courses (42 credits)

    THTR 13800 - Acting I Cr. 3.
    THTR 15800 - Stagecraft Cr. 3.
    THTR 16800 - Theatre Production I Cr. 1.
        Must take 4 semesters of this course, 4 credits total.
    THTR 20100 - Theatre Appreciation Cr. 3.
    THTR 21300 - Voice for the Actor Cr. 2.
    THTR 26100 - Introduction to Theatrical Design Cr. 3.
    THTR 28400 - Textual Analysis Cr. 3.

THTR 35100 - Costume Techniques I Cr. 3.
THTR 44000 - Directing: Page to Stage Cr. 3.
THTR 47000 - Theatre and Society I Cr. 3.
THTR 47100 - Theatre and Society II Cr. 3.
THTR 50100 - Stage Management Cr. 3.

One of the following Design Courses: Credits: 3

THTR 36000 - Scenic Design Cr. 3.
THTR 36100 - Costume Design Cr. 3.
THTR 36200 - Light Design Cr. 3.

Emphasis Area Credits: 18

Credits from emphasis area below

Elective Courses Credits: 31-49

Sufficient elective credits to bring total to 124.

Total Credits: 124

Emphasis Areas

Acting (18 credits)

THTR 23800 - Acting II Cr. 3.
THTR 32300 - Acting: Movement for the Actor Cr. 2.
THTR 33600 - Rehearsal and Performance II Cr. 1-2.
THTR 33800 - Acting III Cr. 3.
THTR 41300 - Advanced Voice for the Stage Cr. 3.
THTR 43800 - Acting IV Cr. 3.

Choose one of the following dance courses

DANC 10200 - Ballet I Cr. 2.
DANC 10300 - Jazz Dance I Cr. 2.
DANC 12100 - Tap Dance I Cr. 2.

Design and Technology (18 credits)

THTR 26400 - Rendering Techniques Cr. 3.
THTR 36500 - Period Style for the Theatre I Cr. 3.
THTR 36600 - Period Style for the Theatre II Cr. 3.

Two of the following: Credits: 6

THTR 36000 - Scenic Design Cr. 3.
THTR 36100 - Costume Design Cr. 3.
THTR 36200 - Light Design Cr. 3.

One of the following: Credits: 3

THTR 56000 - Advanced Scenic Design Cr. 3.
THTR 56100 - Advanced Costume Design Cr. 3.
THTR 56200 - Advanced Light Design Cr. 3.

Directing (18 credits)

THTR 13600 - Rehearsal and Performance I Cr. 1-2.
THTR 23800 - Acting II Cr. 3.
THTR 32300 - Acting: Movement for the Actor Cr. 2.
THTR 36500 - Period Style for the Theatre I Cr. 3.
THTR 36600 - Period Style for the Theatre II Cr. 3.
THTR 54000 - Advanced Directing Cr. 3.

Choose one of the following design courses:

THTR 360 must be taken here if not taken in the Theatre B.A. Core

THTR 36000 - Scenic Design Cr. 3.
THTR 36100 - Costume Design Cr. 3.
THTR 36200 - Light Design Cr. 3.

Visual Communication and Design

Program: B.F.A.
Department of Visual Communication and Design
College of Visual and Performing Arts

Visual Arts Building 213 ~ 260-481-6709 ~ *www.ipfw.edu/vpa/vcd*

The student learning outcomes for the degree are as follows:

Visual Communication and Design provides an exceptional professional degree program which combines creative development in an artistic discipline with career preparation.
Visual Communication and Design students demonstrate:
effective skills in written, oral, and multimedia communication while articulating their ideas in an appropriate media.
visual information literacy skills and quantitative reasoning as a means of gaining written and visual knowledge while drawing reliable conclusions in their chosen discipline.
Visual Communication and Design students demonstrate:
effective skills in written, oral, and multimedia communication while articulating their ideas in an appropriate media.
visual information literacy skills and quantitative reasoning as a means of gaining written and visual knowledge while drawing reliable conclusions in their chosen discipline.
critical thinking and problem solving while also evaluating their ideas and technological competencies.

artistic and scholarly collaboration with continuous personal growth to the highest levels of personal
integrity and professional ethics.

knowledge and skills based upon an understanding of historical traditions that formed one's own and
other cultures

a commitment to mutual respect through free and open visual inquiry and communications.

The Bachelor of Fine Arts program includes general education, art/design history, visual art, and design studio courses and offers concentrations in computer art and design, graphic design, and photography.

Students are eligible for admission to the B.F.A. major after (1) completing 45 credits of study with a garde of C or better and a cumulative G.P.A. of 2.5 overall or higher and 3.0 in all required VCD and FINA courses and (2) receiving approval for admission by the faculty after a portfolio review. A student may not enroll in any course numbered 300 or above until these criteria are met.

Admission

The student must meet the requirements of IPFW. Admission to the Department of Visual Communication and Design does not confer acceptance to the B.F.A. major. Newly admitted students are assigned to either a pre-B.F.A. or A.S. program. Later acceptance to the B.F.A. area of concentration is dependent upon satisfying the requirements of a portfolio review.

IPFW General Education Requirements Credits: 33

Area I—Linguistic and Numerical Foundations Credits: 9

See Part 2 General Education Requirements for approved courses

Quantitative reasoning course Credits: 3
COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis Credits: 3

Art/Design History Credits: 12

Credits in art/design history courses numbered 300 or above: 6
FINA H111 - Ancient and Medieval Art Cr. 3.
FINA H112 - Renaissance Through Modern Art Cr. 3.

Area of Concentration: Studio and Electives Credits: 75

Computer Art and Design

Studio Electives in VCD or FINA Credits: 24
FINA P151 - Design Fundamentals I-II Cr. 3.
FINA P152 - Design Fundamentals I-II Cr. 3.
PHIL 27500 - The Philosophy of Art Cr. 3.
PHYS 12500 - Light and Color Cr. 3.
VCD P243 - Photography Fundamentals Cr. 3.
VCD P273 - Computer Art and Design I Cr. 3.
VCD P356 - Package Design Cr. 3.
VCD P357 - Display and Design Cr. 3.
VCD P374 - Computer Art and Design II Cr. 3.
VCD P475 - Computer Art and Design III Cr. 3.
VCD P476 - Three-Dimensional Computer Modeling Cr. 3
VCD P478 - Computer Animation Cr. 3.
VCD P495 - Independent Study in Fine Arts Cr. 3.

Graphic Design

Studio Electives in VCD or FINA Credits: 15
FINA P121 - Drawing Fundamentals I-II Cr. 3.
FINA P122 - Drawing Fundamentals I-II Cr. 3.
FINA P151 - Design Fundamentals I-II Cr. 3.
FINA P152 - Design Fundamentals I-II Cr. 3.
FINA P226 - Painting Fundamentals II Cr. 3.
VCD P253 - Principles of Graphic Design I Cr. 3.
VCD P254 - Principles of Graphic Design II Cr. 3.
VCD P261 - Layout and Finished Art Cr. 3.
VCD P271 - Illustration I Cr. 3.
VCD P272 - Illustration II Cr. 3.
VCD P273 - Computer Art and Design I Cr. 3.
VCD P356 - Package Design Cr. 3.
VCD P357 - Display and Design Cr. 3.
VCD P371 - Illustration III Cr. 3.
VCD P372 - Illustration IV Cr. 3.
VCD P374 - Computer Art and Design II Cr. 3.
VCD P453 - Graphic Design III Cr. 3.
VCD P454 - Graphic Design IV Cr. 3.
VCD P475 - Computer Art and Design III Cr. 3.
VCD P495 - Independent Study in Fine Arts Cr. 3.
    (or additional studio)

Photography

Studio Electives in VCD or FINA Credits: 30
FINA P151 - Design Fundamentals I-II Cr. 3.
FINA P152 - Design Fundamentals I-II Cr. 3.
PHIL 27500 - The Philosophy of Art Cr. 3.
PHYS 12500 - Light and Color Cr. 3.
VCD P273 - Computer Art and Design I Cr. 3.
VCD P343 - Advanced Photography I Cr. 3.
VCD P344 - Advanced Photography II Cr. 3.
VCD P374 - Computer Art and Design II Cr. 3.
VCD P443 - Advanced Photography III Cr. 3.
VCD P444 - Advanced Photography IV Cr. 3.
VCD P475 - Computer Art and Design III Cr. 3.
VCD P495 - Independent Study in Fine Arts Cr. 3.
    (or additional studio)

Senior Project Credits: 6

Majors must complete a senior project in the elected area of concentration. This two-semester course requires of the student a project incorporating an in-depth study and exploration of an artistic endeavor. The senior project culminates in a B.F.A. thesis exhibition that is judged by the faculty and reviewed by the public. An artist's statement and project description is a requirement of the exhibition installation.

VCD P450 - Senior Project Cr. 3.

Women's Studies (B.A.)

Program: B.A.
College of Arts and Sciences

Liberal Arts Building 35F ~ 260-481-6711 - www.ipfw.edu/wost

The student learning outcomes for the degree are as follows:

demonstrate understanding of feminist approaches to research and learning in at least two disciplines
demonstrate understanding of major categories of feminist critical analysis, such as gender, race, and class
demonstrate understanding of how traditional fields of study or artistic canons are expanded and reshaped when
    the contributions of women are taken into consideration
demonstrate the ability to think critically about issues in feminism past and present

Women's Studies is based on the premise that the study of women's experiences, concerns, social roles, and creativity is essential to our knowledge of humankind and society. Feminist scholarship and theory provide the knowledge and analytical tools necessary for a gender-balanced perspective on our world, both past and present. The Women's Studies Program affords you the opportunity to pursue feminist scholarship on women and gender through a variety of interdisciplinary courses.

In addition to the B.A. program, an Associate of Arts with a concentration in Women's Studies is available at IPFW. See College of Arts and Sciences in Part 4 for further information.

To earn the Bachelor of Arts with a major in Women's Studies, you must satisfy the requirements of IPFW (see Part 8) and the College of Arts and Sciences (see Part 4), and complete the following courses. Only women's studies courses in which you have earned a grade of C or better can be applied to the degree or used to satisfy prerequisites.

IPFW General Education Requirements

Area I—Linguistic and Numerical Foundations

COM 11400 - Fundamentals of Speech Communication Cr. 3.

One of the following: Credits: 3

ENG W131 - Elementary Composition I Cr. 3.
ENG W140 - Elementary Composition Honors Cr. 3.

One of the following: Credits: 3

MA 15300 - Algebra and Trigonometry I Cr. 3.
MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
STAT 12500 - Communicating with Statistics Cr. 3.

Area II—Natural and Physical Sciences Credits: 6

See Part 2 General Education Requirements for approved courses

Area III—The Individual, Culture, and Society Credits: 6

See Part 2 General Education Requirements for approved courses

Area IV—Humanistic Thought Credits: 6

See Part 2 General Education Requirements for approved courses

Area V—Creative and Artistic Expression Credits: 3

See Part 2 General Education Requirements for approved courses

Area VI—Inquiry and Analysis (not in WOST) Credits: 3

See Part 2 General Education Requirements for approved courses

College of Arts and Sciences Requirements

English Writing

ENG W233 - Intermediate Expository Writing Cr. 3.

(or other approved writing course)

Foreign Language

Requirements in Arts and Sciences Part B Credits: 14

Distribution (not in WOST or cross-listed courses)

Requirements in Arts and Sciences Part C Credits: 9

Cultural Studies

Additional credits in Western tradition Credits: 3
WOST W301 - International Perspectives on Women Cr. 3.
    (credits included in Major Requirements, below)

Core and Concentration (Major) Courses

Credits in WOST or cross-listed humanities/visual arts Credits: 6

Credits in WOST or cross-listed social science/science Credits: 6

Additional credits in WOST or cross-listed courses Credits: 9
WOST W210 - Introduction to Women's Studies Cr. 3.
WOST W301 - International Perspectives on Women Cr. 3.
WOST W400 - Topics in Women's Studies Cr. 3.

General Elective Courses

Sufficient additional credits to bring the total to 124.

Total Credits: 124

Notes

A thematic focus of at least three courses (9 of the 30 credits in Major Requirements) must be selected in consultation with your women's studies advisor. The thematic focus provides coherence within this interdisciplinary major and can be defined in several ways: geographically (e.g., women in America, women in Western Europe); chronologically (e.g., women in antiquity, women of the Renaissance); by a category or issue (e.g., women and peace, women of color), and so on.

If you major in women's studies, you are also required to have a second major or one or more minors in other arts and sciences disciplines. If you elect to double-major in women's studies and another arts and sciences discipline, women's studies may be either your first or second major.

You may count the courses taken to fulfill this major toward arts and sciences distribution requirements wherever possible. However, no more than two courses may be applied to both majors.

If you elect to combine a women's studies major with one or more minors in other arts and sciences disciplines, you may count only two courses toward both the women's studies major and School of Arts and Sciences distribution requirements. Only one course may be counted toward both the women's studies major and any other minor.

Certificate

Accounting Post-Baccalaureate Certificate

Program: Certificate
Department of Accounting and Finance
Richard T. Doermer School of Business and Management Sciences

Neff Hall Room 350 ~ 260-481-6471 ~ www.ipfw.edu/bms

The Post-Baccalaureate Certificate in Accounting (P.B.A.) is offered by the Department of Accounting and Finance. Typically, students who pursue the P.B.A. are seeking an academic program of recognized quality that will help them prepare for careers in accounting. In combination with a bachelor's degree earned at an appropriately accredited institution, the P.B.A. meets the current minimum accounting educational requirements to sit for the Uniform Certified Public Accounting Examination in Indiana if students select the correct electives. Additional nonaccounting business credits may be required.

Admission Admission to the P.B.A. program is limited to holders of bachelor's degrees awarded by institutions that were accredited at the baccalaureate level by the North Central Association of Colleges and Schools (or comparable regional association) at the time the degree was granted.

To enroll in the program, you must first be formally admitted to IPFW. You must provide the IPFW admissions office with official transcripts documenting completion of your bachelor's degree.

Certificate Requirements Individuals interested in the P.B.A. program should check with either the department (Neff 350) or the school's Student Success Center (Neff 366) for specific program requirements and further information.

Special Academic Regulations for P.B.A. Students

Performance Standards With the exception of the minimum GPA for retention, P.B.A. students are held to the performance standards specified for students in undergraduate business programs. See Business later in this part of the Bulletin.

Course Waivers You may be eligible for waivers of course requirements based upon academic courses taken as part of your bachelor's program if those courses were completed within the past five calendar years.

Advanced Manufacturing Management Certificate

Program: Certificate
Department of Manufacturing & Construction Engineering Technology and Interior Design
College of Engineering Technology, and Computer Science

Engineering, Technology, and Computer Science Building 221 ~ 260-481-4127 ~ www.mcet.ipfw.edu

This 18-hour credit certificate provides state-of-the-art training for working professionals who seek knowledge for career advancement in management and ownership roles in various manufacturing sectors - biomedical, military, automotive, electronics, construction, sports, and more.

To earn the certificate in advanced manufacturing management, you must satisfy the requirements of IPFW (), fulfill all course prerequisites, and satisfactorily complete the following courses with a grade of C or better, see Part 8

Program Requirements

IET 10500 - Industrial Management Cr. 3.
IET 20004 - Techniques of Maintaining Quality Cr. 3.
IET 22400 - Production Planning and Control Cr. 3.
IET 26700 - Work Methods Design Cr. 3.
IET 35000 - Engineering Economy Cr. 3.
IET 47800 - Lean Manufacturing and Design Cr. 3.

Students must be admitted to IPFW to register for thses courses.

Advanced Microprocessors Certificate

Program: Certificate
Department of Computer and Electrical Engineering Technology & Information Systems and Technology
College of Engineering Technology, and Computer Science

Engineering, Technology, and Computer Science Building 205 ~ 260-481-6338 ~ www.ceit.ipfw.edu

 The *student learning outcomes for the certificate are as follows:*

Students earning the certificate will have

The fundamental knowledge, skills, and techniques necessary to program and interface microcontrollers and microprocessors.
The knowledge and ability to learn and interface other languages or microprocessor-based devices.

The certificate program in advanced microprocessors provides the theoretical and practical knowledge necessary to enable you to use microprocessors in industrial applications. Some highlights of the course sequence include electronic simulations and calculations; theoretical and laboratory applications of digital logic circuits, operational amplifiers, D/A and A/D converters, computer memory circuits; microprocessor assembly language, Visual Basic, and "C" programming; EEPROM and EPROM programming; microprocessors and microcontrollers; experimental applications; and applied, practical projects. Special emphasis is placed on embedded systems using microcontrollers.

The CEIT department also offers the Bachelor and Associate of Science with a major in electrical engineering technology, a Bachelor of Science with a major in computer engineering technology (CPET) and an Associate and Bachelor of Science with a major in information systems. In addition to the degrees, the department offers a minor in electronics, and minor in information systems and certificate programs in computer-controlled systems, electronic communications, and computer networking.

To earn the certificate in advanced microprocessors, you must satisfy the requirements of IPFW (see Part 8), fulfill all course prerequisites, and satisfactorily complete the following courses. This certificate is not available to any student with a major in EET (A.S. and/or B.S.) or CPET (B.S.).

Program Requirements

ECET 11100 - Digital Circuits Cr. 4.
ECET 20500 - Introduction to Microprocessors Cr. 4.
ECET 26400 - C Programming Language Applications Cr. 3.
ECET 30500 - Advanced Microprocessors Cr. 4.

One of the following:

CS 11400 - Introduction to Visual Basic Cr. 3.
ECET 11400 - Introduction to Visual Basic Cr. 3.

Advanced Microprocessors Project

CPET 49900 - Computer Engineering Technology Cr. 1-4.

Total Credits: 19

American Studies Certificate

Program: Certificate in American Studies
College of Arts and Sciences

Liberal Arts Building 153 ~ 260-481-6160

The student learning outcomes for the degree are as follows:

Students will examine American culture from a range of local, regional, and global perspectives.

Students will develop skills in interdisciplinary, holistic, connected critical thinking, making connections between different fields of academic inquiry, and producing sustained, reasoned, critical analysis of American culture, society, and history.

Students will develop critical self-awareness of how they as individuals have been shaped by their particular American experience as well as a broader understanding of the diverse cultures of the United States and the influential factors of gender, race, ethnicity, and religious background.

Students will be able to put theory into practice through service-learning initiatives at local, arts, government, charitable and other appropriate organizations.

American Studies is also committed to enriching the life of the campus and community through sponsoring speakers, films, visiting artist, and so on, fostering connections between the campus and community organizations, and facilitating research collaborations between Americanist faculty from different disciplines at IPFW.

The mission of the American Studies program is to produce engaged and thoughtful citizens who are aware of how they have been shaped by the American experience and how they can be responsible citizens both in a multicultural United States and in a global environment. Students in American Studies will analyze the place of America within the larger scope within its borders by the contributions of a variety of national and ethnic group, and by analysis of how America relates to and is perceived by countries outside its own borders.

Program Requirements

Required introductory course

AMST A200 - Comparative American Identities Cr. 3.

Structure of other credits

At least 6 credits must be at least at 300 level
At least 6 credits must be taken in two additional areas of study outside of major field
See History Department for list of pre-approved classes

Capstone

Choose one of the following courses

AMST A440 - Senior Seminar in American Studies Cr. 3.
AMST A441 - America in Global Perspective Cr. 3.

Total Credits: 18

Civic Education and Public Advocacy

Program: Certificate
Department of Political Science
College of Arts and Sciences

Liberal Arts Building 209 ~ 260-481-6686 ~ www.ipfw.edu/pols

The student learning outcomes for the degree are as follows:

The certificate links methods, theory, and skills-based training with active student learning and community-based projects.

To earn the Certificate in Civic Education and Public Advocacy you will be required to complete 19 credit hours with a grade of C- or better in each course and with an overall GPA of 2.00 or higher.

Program Requirements

POLS Y150 - Foundations of Community Advocacy Cr. 1-3.
Credits: 1

Introduction To Government and Politics Credits: 3

POLS Y103 - Introduction to American Politics Cr. 3.
POLS Y306 - State Politics in the United States Cr. 3.
POLS Y307 - Indiana State Government and Politics Cr. 3.

POLS Y308 - Urban Politics Cr. 3.
SPEA V170 - Introduction to Public Affairs Cr. 3.
SPEA V264 - Urban Structure and Policy Cr. 3.

Essential Communication Skills Credits: 3

COM 21000 - Debating Public Issues Cr. 3.
ENG W233 - Intermediate Expository Writing Cr. 3.
POLS Y205 - Elements of Political Analysis Cr. 3.

Promise and Problems of Democracy Credits: 6

(at least one political science course)

AFRO A210 - The Black Woman in America Cr. 3.
COM 31600 - Controversy in American Society Cr. 3.
ENG L232 - Topics in Literature and Culture Cr. 3.
ENG L250 - American Literature Before 1865 Cr. 3.
ENG L251 - American Literature Since 1865 Cr. 3.
ENG L379 - American Ethnic and Minority Literature Cr. 3.
HIST A306 - Sex Roles and Society in American History Cr. 3.
HIST A313 - Origins of Modern America Cr. 3.
HIST A321 - History of American Thought I Cr. 3.
HIST A322 - History of American Thought II Cr. 3.
HIST A345 - American Diplomatic History I Cr. 3.
HIST A349 - Afro-American History Cr. 3.
PHIL 24000 - Social and Political Philosophy Cr. 3.
POLS Y105 - Introduction to Political Theory Cr. 3.
POLS Y381 - Classical Political Thought Cr. 3.
POLS Y382 - History of Political Theory II Cr. 3.
POLS Y383 - American Political Ideas I Cr. 3.
POLS Y384 - American Political Ideas II Cr. 3.
SOC S300 - Race and Ethnic Relations Cr. 3.
SOC S309 - The Community Cr. 3.

Policy Formation and Analysis and Government Operations Credits: 3

POLS Y200 - Contemporary Political Topics Cr. 1-6,
    (topic must be approved)
POLS Y301 - Political Parties and Interest Groups Cr. 3.
POLS Y303 - Formation of Public Policy in the United States Cr. 3.
POLS Y312 - Workshop in State and Local Government Cr. 3.
POLS Y317 - Voting, Elections, and Public Opinion Cr. 3.
POLS Y378 - Problems in Public Policy Cr. 3.
POLS Y394 - Public Policy Analysis Cr. 3.
POLS Y401 - Studies in Political Science Cr. 3.
    (topic must be approved)
SPEA V365 - Urban Development and Planning Cr. 3.
SPEA V372 - Government Finance and Budgets Cr. 3.

Capstone Course Credits: 3

POLS Y398 - Internship in Urban Institutions Cr. 1-6.
POLS Y482 - Practicum Cr. 1-6.

Computer Networking Certificate

Program: Certificate
Department of Computer and Electrical Engineering Technology & Information Systems and Technology
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 205 ~ 260-481-6338 ~ www.ceit.ipfw.edu

The student learning outcomes for the certificate are as follows:

 Students earning the certificate will have

> The fundamental knowledge, skills, and techniques necessary to understand and relate scientific principles to applications using current computer networking software and equipment.
> The knowledge and ability to continue learning the principles and applications of future network operating systems and devices.

This certificate program in computer networking provides the theoretical and practical knowledge necessary to enable you to work with computer operating systems, data communication and network equipment, networking protocols, network system administration, local area networks, wide area networks, and network security.

The CEIT department also offers the Bachelor and Associate of Science with a major in electrical engineering technology, a Bachelor of Science with a major in computer engineering technology (CPET) and an Associate and Bachelor of Science with a major in information systems. In addition to the degrees, the department offers a minor in electronics, and minor in information systems and certificate programs in advanced microprocessors, computer-controlled systems, and electronic communications.

 To earn the certificate in computer networking, you must fulfill all course prerequisites, and successfully complete the following courses with a grade of C or better in each course. This certificate is not available to any student with a major in CPET (B.S.).

Program Requirements

CPET 18100 - Computer Operating Systems Basics Cr. 3.
CPET 28100 - Local Area Networks and Management Cr. 3.
CPET 36400 - Networking Security Cr. 3.

One of the following Credits: 3

CS 17000 - C and Data Structures Cr. 3.
ECET 26400 - C Programming Language Applications Cr. 3.

One of the following Credits: 4

CPET 35500 - Data Communications and Networking Cr. 4.
CS 27400 - Data Communications Cr. 3.
> (plus one-hour lab)

ECET 35500 - Data Communications and Networking Cr. 4.

One of the following Credits: 3

CPET 38400 - Wide Area Network Design Cr. 3.
CPET 49300 - Wireless Networking Cr. 3.
CPET 49500 - Web Engineering and Design Cr. 4.
CPET 49900 - Computer Engineering Technology Cr. 1-4.
CS 37400 - Computer Networks Cr. 3.

Computer Networking Project

CPET 49900 - Computer Engineering Technology Cr. 1-4.

Total Credits: 20

Computer-Controlled Systems Certificate

Program: Certificate
Department of Computer and Electrical Engineering Technology &
Information Systems and Technology
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 205 ~ 260-481-6338 ~ www.ceit.ipfw.edu

The student learning outcomes for the certificate are as follows:

The fundamental knowledge, skills, and techniques necessary to understand and relate scientific principles to applications using current computer controlled devices.
The knowledge and ability to continue learning the principles and applications of future computer controlled devices.

This certificate program provides theory and experiments on computer-controlled system design and implementation. Several methods of computer control including — programmable logic controllers (PLC) or Labview graphical programming, General Purpose Interface Bus control (GPIB, HPIB, or IEEE 488), and microcontroller-based systems — are studied. Highlights of the course sequence include data acquisition using low- and high-level languages, control-variable measurement using sensors, D/A and A/D conversions, ladder diagrams, design of pneumatic and hydraulic-controlled systems, sampling and reconstruction, and comparison of continuous and discrete time-controlled systems, and open- and closed-loop controlled systems.

The CEIT department also offers the Bachelor and Associate of Science with a major in electrical engineering technology, a Bachelor of Science with a major in computer engineering technology (CPET) and an Associate and Bachelor of Science with a major in information systems. In addition to the degrees, the department offers a minor in electronics, and minor in information systems and certificate programs in advanced microprocessors, electronic communications, and computer networking.

To earn the certificate in computer-controlled systems, you must satisfy the requirements of IPFW (see Part 8), fulfill all course prerequisites, and satisfactorily complete the following courses with a grade of C or better. This certificate is not available to any student with a major in EET (A.S. and/or B.S.).

Program Requirements

ECET 20500 - Introduction to Microprocessors Cr. 4.
ECET 30200 - Introduction to Control Systems Cr. 4.

One of the following Credits: 4

CPET 35500 - Data Communications and Networking Cr. 4.
ECET 35500 - Data Communications and Networking Cr. 4.
ECET 37500 - Computer Controlled System Designs Cr. 3-4.

One of the following Credits: 4

ECET 36100 - Introduction to PLC and Pneumatic Systems Cr. 4.
ECET 36500 - Electrical Measurements Cr. 4.

Computer-Controlled Systems Project

CPET 49900 - Computer Engineering Technology Cr. 1-4.

Total Credits: 17

Dental Assisting Certificate

Program: Certificate in Dental Assisting
Department of Dental Education
College of Health and Human Services

Neff Hall Room 150 ~ 260-481-6837 ~ www.ipfw.edu/dental

The Certificate in Dental Assisting Program is accredited by the American Dental Association Commission on Dental Accreditation, 211 E Chicago Ave # 780, Chicago, IL 60611-6983, telephone (312) 440-2500, http://www.ada.org.

The student learning outcomes for the Dental Assisting Certificate are as follows:

- Demonstrate the breadth and depth of knowledge in basic sciences, social sciences, and clinical practice to deliver comprehensive care to patients in the practice of dentistry.

- Demonstrate and incorporate problem-solving skills in critical thinking, interpretation, reasoning, questioning, and decision-making.

- Demonstrate competence in assessing, evaluating, planning, and treating oral conditions and diseases.

- Demonstrate effective written, oral, and multimedia skills to communicate effectively in diverse settings.

- Interpret, evaluate, and synthesize current scientific dental research and apply evidence-based reasoning skills.

- Comprehend and demonstrate current technology in the practice of dentistry, as it is constantly changing.

- Demonstrate the highest levels of ethical behavior, personal integrity, and professional ethics in the practice of dentistry and the patients that are under their care.

- Assume a leadership and collaborative role in the advancement of the dental profession through local, regional, national, and international communities and professional organizations.

- Demonstrate and apply the skills for life-long learning and professional development.

The Dental Assisting Program curriculum includes didactic, laboratory, and clinical courses with at least one semester of prerequisite courses and one year of professional dental assisting courses. Students are designated as pre-dental assisting students prior to admission to the program. The professional curriculum is a structured, full-time program beginning each fall semester. The curriculum prepares students for a career as a dental health professional. A student may choose to specialize in any of the following areas of dentistry: chairside general dentistry, expanded functions dental assisting (restorative) in general or pediatric dentistry, orthodontics, oral surgery, periodontics, assist in dental surgery at area hospitals, endodontics, public health dentistry, dental sales, dental insurance, dental research, business assisting or office management, or clinical supervision. Graduates are eligible to take the national boards to become a Certified Dental Assistant (CDA) and take the state boards to obtain a dental radiology license in the State of Indiana.

Application to the Program

Applicants must make an appointment with a dental assisting advisor to discuss the program and receive current information regarding admission, prerequisite requirements, and possible degree completion options. To make an appointment with your advisor, log onto the dental education website http://www.ipfw.edu/dental click on advisors and follow the instructions to find your academic advisor.

In order to apply to the Dental Assisting Program a student must:

- Complete prerequisite courses or equivalent courses at another accredited college or university by May 18 for entry the fall semester of that year. Prerequisite courses may not be graded on a pass/not-pass option.

- Submit a dental assisting application with two separate dental office observation forms no later than March 1 for entry to the fall semester of that year. Admission to IPFW does not confer admission to this program. To be admitted to the certificate program students must apply separately to IPFW and the dental assisting program. See the Department of Dental Education for the dental assisting application and dental office observation forms.

Because space in the dental assisting program is limited to 24 students per year, admission is competitive.

The number of eligible applicants each year exceeds the number of spaces available.

Class Selection Process

Acceptance into the Dental Assisting Program is based on the following:

- Applicants must have a minimum prerequisite grade-point average (GPA) of 2.5 on a 4.0 scale in the 12 hours of pre-dental assisting curriculum. The GPA is calculated on only the 12 hours of prerequisite courses. Applicants are ranked based on this GPA. A minimum GPA does not guarantee admission. The actual GPA necessary for admission varies with the GPA distribution of the applicant pool.

- All transfer grades will be reviewed and evaluated in the admission process. Remedial or developmental courses (ENG R150, R151, R152, P131, W130, or MA 109) cannot be used to fulfill these prerequisite requirements

- First-priority consideration for program admission will be given to students who have completed all 12 hours of pre-dental assisting curriculum at IPFW or at other Purdue University or Indiana University campuses. Students who complete some of their prerequisite courses at IPFW, Indiana University, or Purdue University and other colleges/universities will be considered second for entrance into the program. Students who complete all their prerequisite courses at other colleges/universities that are not IPFW, Indiana University, or Purdue University courses will be considered third for entrance into the program.

- Should a tie in applicants' GPAs occur, rank ordering will be based upon the applicants' cumulative GPA.

- Applicants must meet the application and observation forms deadline of March 1.

- Applicants must return the acceptance form by the deadline stated in the acceptance letter.

- Applicants who have not been accepted, but who are qualified, may reapply for admission.

- Applicants must demonstrate meeting the College of Health and Human Services Technical Standards.

- Students must submit evidence that they have completed the following before classes begin fall semester:

  - a recent physical examination (the summer before the program begins)

  - a recent TB testing (the summer before the program begins)

  - received the three Hepatitis B immunizations (before the program begins) and a Hepatitis B titer (blood test)

  - has a current CPR certification at the healthcare-provider level with the American Heart Association or professional level with the American Red Cross.

  - submitted proof of payment for their Purdue Professional Liability Insurance coverage. Purdue professional liability insurance is not valid unless it has been paid.

  - apply to the Indiana State Department of Health for a Radiology Permit. Students will be given the permit application at July orientation.

  - complete a criminal background check. Students will receive online instructions at July orientation.

- Applicants who have served in the military must submit military discharge papers

- Students in the professional dental programs must pass a drug screening test, if requested.

Admission Policies

Reapplying. Students who have not been accepted, but who are qualified, may reapply for admission. Students who decline admission two times will no longer be considered.

Academic Renewal. Students who are returning to IPFW after five years or more are eligible for the Academic Renewal Option. The Academic Renewal Option must be exercised during a student's first semester back at IPFW, regardless of when the student applies for admission to the Dental Assisting Program. The Program's admission committee will recognize IPFW's Academic Renewal Option when reviewing an applicant for admission.

<u>**Criteria for Dismissal from the Dental Assisting Program**</u>

- A student who is dismissed from the program may appeal the decision to the Department of Dental Education. If the student is dismissed for failure to meet the university's minimum academic standards, application for readmission must follow the procedures established by the university.

- Dismissal from the Dental Assisting Program may result from professional misconduct. Students who have been accepted to the program will receive a program manual at summer orientation that must be read before they start the program.

- The College of Health and Human Services Student Appeals Policy and forms can be found at http://www.ipfw.edu/hhs/resources/appeals.shtml

<u>Special Academic Regulations for Students in the Department of Dental Education</u>

Tattoos and Head and Neck Piercings

The dental profession is extremely conservative. Tattoos and head and neck piercings are not considered acceptable in the health science professions. If students have tattoos, they must be covered by clothing. If they cannot be covered by clothing, students are required to cover tattoos with bandages. All head and neck piercings must be removed, including plugs.

Attendance

Because of the experiential learning process used in all dental assisting courses, attendance is essential and mandatory. Some evening hours are required for additional clinical experiences and professional association meetings.

Prerequisite Courses

- Prerequisite and preferred admission courses must be completed by May 18 for admission into the class that begins each fall.

- A minimum prerequisite GPA of 2.5 and a minimum cumulative GPA of 2.0 is required for all applicants.

- A student may make two graded attempts at a prerequisite course, with the most recent grade calculated in the pre-dental assisting prerequisite GPA. The student's two attempts will include any graded attempt, whether or not eliminated from the student's grade point average by grade replacement. Repeated courses will not be averaged.

- To apply for the Dental Assisting Certificate program, you must complete the following prerequisite courses by May 18 and receive a grade of C- or better.

You must complete the following prerequisite courses: (12 credits)

COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
NUR 10600 - Medical Terminology Cr. 3.
PSY 12000 - Elementary Psychology Cr. 3.

Preferred Admission Courses

(with a grade of C- or better)

> BIOL 20300 - Human Anatomy and Physiology Cr. 4.
> BIOL 20400 - Human Anatomy and Physiology Cr. 4.
> DAST A122 - Introduction to Dentistry Cr. 1.

Total Credits: 12-21

Professional Program Requirements (34 credits)

After acceptance into the program, you must fulfill the requirements of IPFW (see Part 8) and Dental Education, and satisfactory complete the following courses with a grade of C or better:

> DAST A111 - Oral Pathology, Physiology, and Anatomy Cr. 1-2.
> DAST A112 - Dental and Medical Emergencies and Therapeutics Cr. 2.
> DAST A121 - Microbiology and Asepsis Technique Cr. 1-2.
> DAST A131 - Dental Materials I Cr. 3.
> DAST A132 - Dental Materials II Cr. 3.
> DAST A141 - Preventive Dentistry and Nutrition Cr. 2.
> DAST A171 - Clinical Science I Cr. 4.
> DAST A172 - Clinical Science II Cr. 3-6.
> DAST A182 - Practice Management, Ethics, and Jurisprudence Cr. 2.
> DHYG H214 - Oral Anatomy Cr. 3.
> DHYG H242 - Introduction to Dentistry - Specialties Cr. 1.
> DHYG H303 - Radiology (lecture and lab) Cr. 1-2.
> DHYG H305 - Radiology Clinic I Cr. 1-2.

Total Credits: 46-53

Electronic Communications Certificate

Program: Certificate
Department of Computer and Electrical Engineering Technology & Information Systems and Technology
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 205~ 260-481-6338 ~ www.ceit.ipfw.edu

The student learning outcomes for the certificate are as follows:

> The fundamental knowledge, skills, and techniques necessary to understand and relate scientific principles to applications using current electronic communications devices.
> The knowledge and ability to continue learning the principles and applications of future communications devices .

This certificate program provides theory and experiments for electronic communications topics ranging from low-frequency applications to fiber optics. It includes courses in analog communications (AM and FM), digital communications (satellite communications and digital TV), microwaves (high-frequency communications), and fiber optics. Computer programs such as SPICE, ACOLADE (digital communications), SYSCAD (analog communications), TOUCHSTONE (RF and microwave systems), and Microwave Office are incorporated into the curriculum.

The CEIT department also offers the Bachelor and Associate of Science with a major in electrical engineering technology, a Bachelor of Science with a major in computer engineering technology (CPET) and an Associate and Bachelor of Science with a major in information systems. In addition to the degrees, the department offers a minor in electronics, and minor in information systems and certificate programs in advanced microprocessors, computer-controlled systems, and computer networking.

To earn the certificate in electronic communications, you must satisfy the requirements of IPFW (see Part 8), fulfill all course prerequisites, and satisfactorily complete the following courses. This certificate is not available to any student with a major in EET (A.S. and/or B.S.).

Program Requirements

ECET 30300 - Communications I Cr. 4.
ECET 37700 - Introduction to Fiber Optics Cr. 4.
ECET 40300 - Communications II Cr. 4.

And one of the following (4 Credit Hours)

ECET 41400 - Wireless Communications Cr. 4.
ECET 47300 - Microwaves Cr. 4.

Electronic Communications Project

ECET 49900 - Electrical Engineering Technology Cr. 1-9.

Total Credits: 17

Ethnic and Cultural Studies Certificate

Program: Certificate in Ethnic and Cultural Studies
College of Arts and Sciences

Liberal Arts Building 154 ~ 260-481-6746 ~ www.ipfw.edu/engl

The student learning outcomes for the degree are as follows:

The holder of this certificate will be able to demonstrate understanding of the religious and cultural institutions specific to Native American and/or African American society.

This certificate is available to all IPFW students interested in understanding the institutions, histories, and cultures of American ethnic groups.

To earn the certificate, you must (1) complete all requirements for a bachelor's degree, and (2) complete, with the approval of the program's advisory committee, 18 additional credits from the following list with a grade of C or higher in each course. No more than one independent-reading or internship course may be taken from the same department.

Credits in six of the following courses: 18

EDUC E400 - Education in the Inner City

EDUC E403 - Education in the Inner City Practicum
MUS M395 - Contemporary Jazz and Soul Music

ANTH E320 - Indians of North America Cr. 3.
ECON E360 - Public Finance: Survey Cr. 3.
FINA H415 - Art of Pre-Columbian America Cr. 3.
FOLK F220 - Introduction to American Folklore Cr. 3.
HIST A349 - Afro-American History Cr. 3.
HIST T425 - Topics in History Cr. 1-3.
PHIL 49300 - Interdisciplinary Undergraduate Seminar Cr. 1-3.
POLS Y398 - Internship in Urban Institutions Cr. 1-6.
SOC S300 - Race and Ethnic Relations Cr. 3.
SOC S494 - Field Experience in Sociology Cr. 3.

Total Credits: 18

Gerontology Certificate

Program: Certificate in Gerontology
College of Arts and Sciences

Liberal Arts Building 135 ~ 260-481-5451 ~ www.ipfw.edu/gerontology/

The student learning outcomes for the degree are as follows:

Students will demonstrate knowledge of gerontology including but not limited to biological, social,
and psychological issues that impact on older adults and those who work with and care for them.
Students will demonstrate knowledge of the basic study of aging in several disciplines, complementary areas such
as nutrition and medical ethics, and applications dealing with health and social issues involving older adults.
Students will demonstrate the ability to apply gerontological knowledge, through a practicum experience in which
the student works with, or on behalf of, older adults in a campus, community, or agency setting that serves
this population.

A certificate in gerontology is available to all IPFW students earning undergraduate degrees. It is also available as a
stand-alone program. The multidisciplinary program provides basic academic courses on aging, as well as applied
courses on health and social issues involving older adults. A practicum component involves applied work in a setting
serving older individuals.

The Gerontology Certificate is comprised of 18 credits. The required introductory course (3 credits) provides a
foundation in biological, psychological, social, and applied aspects of aging. An additional 12 credits are chosen by the
student from a variety of disciplinary courses relevant to gerontology. The final 3-credit requirement is a practicum
that involves applied work in a setting serving older individuals.

To earn the certificate, you must:

meet all regular IPFW admission requirements (refer to Part 8 of the undergraduate Bulletin); and
complete the following 18 credits with a grade of C or better in each course.

To be entered into the program, you must meet with the gerontology program director. The program of study must be
approved by the gerontology program director. All prerequisites must be satisfied before enrolling in any of the
courses listed below.

Program Requirements

GERN G231 - Introduction to Gerontology Cr. 3.

Credits from the following Credits: 12

(you may substitute independent or directed study in gerontology or aging in a suitable department as approved by the gerontology program director):

ANTH E421 - The Anthropology of Aging Cr. 3.
BIOL 32700 - Biology of Aging Cr. 3.
CSD 43000 - Speech-Language Disorders in Healthcare Settings Cr. 3.
FNN 30200 - Nutrition Education Cr. 3.
   Or
FNN 30300 - Essentials of Nutrition Cr. 3.
GERN G399 - Independent Study in Gerontology Cr. 3.
GERN G499 - Topics in Gerontology Cr. 1-6.
MUS L340 - Music Therapy in Healthcare Settings Cr. 3.
MUS U410 - Creative Arts, Health, and Wellness Cr. 3.
NUR 39900 - Special Topics Cr. 1-6.
   Gerontological Nursing
PHIL 31200 - Medical Ethics Cr. 3.
PSY 36700 - Adult Development and Aging Cr. 3.
PSY 37100 - Death and Dying Cr. 3.
SOC S314 - Social Aspects of Health and Medicine Cr. 3.
SPEA H411 - Chronic and Long-Term Care Administration Cr. 3.

Practicum in a gerontological setting Credits: 3

Approved by the gerontology program director. The setting must involve, or relate to, individuals 60 years of age or older. You may choose either a practicum or internship course offered by a department, or the gerontology program practicum course, GERN G494, if you are an interdisciplinary student or are pursuing only the Gerontology Certificate. Approved courses are indicated below. Note that some of these courses may be taken only by those majoring in the sponsoring discipline.

COM 49000 - Internship in Communication Cr. 1-3.
CSD 54900 - Clinical Practice in Speech/Language Pathology I Cr. 1-8.
GERN G494 - Gerontology Practicum Cr. 3.
HSRV 40000 - Internship I Cr. 1-4.
HSRV 40100 - Internship Seminar I Cr. 1.
HSRV 45000 - Internship II Cr. 2-4.
HSRV 45100 - Internship Seminar II Cr. 1.
HTM 30100 - Hospitality and Tourism Industry Practicum Cr. 1.
HTM 30200 - Hospitality and Tourism Industry Internship Cr. 1-2.
MUS L353 - Music Therapy Practicum II Cr. 1.
MUS L423 - Advanced Music Therapy Practicum Cr. 1-3.
MUS L424 - Music Therapy Internship Cr. 1-2.
NUR 49000 - Nursing Practicum Cr. 1-3.
PHIL 48000 - Practicum in Applied Ethics Cr. 3.
POLS Y398 - Internship in Urban Institutions Cr. 1-6.
POLS Y482 - Practicum Cr. 1-6.
PSY 48000 - Field Experience in Psychology Cr. 3.

SOC S494 - Field Experience in Sociology Cr. 3.
SPEA V380 - Internship in Public Affairs Cr. 1-6.

Total Credits: 18

International Studies Certificate

Program: Certificate in International Studies
College of Arts and Sciences

Liberal Arts Building 267 ~ 260-481-6860 or 260-481-6836 ~ www.ipfw.edu/ilcs

The student learning outcomes for the degree are as follows:

Demonstrate an appreciation of the histories and cultures of other nations and the various means used to promote and maintain normal relations among them.
Understand the impact of individual decisions on the world and world events on the individual.
Demonstrate the ability to think critically about major international issues.
A certificate in international studies is available to all IPFW students who are interested in developing greater understanding of the histories and cultures of other nations and in studying the various means used to promote and maintain normal relations among them. You must be at least a sophomore in good standing to apply to this program.

To earn this certificate, you must complete the following credits with a grade of C or higher in each course as part of your bachelor's degree program:

Program Requirements

INTL I200 - Introduction to International Studies: Emerging Global Visions Cr. 3.

Choose from the following Credits: 3

BUS D300 - International Business Administration Cr. 3.
ECON E340 - Introduction to Labor Economics Cr. 3.
HIST H232 - The World in the 20th Century Cr. 3.
ILCS I208 - International Cinema Cr. 3.
ILCS I330 - Cultural Crossroads: Comparative International Cultures Cr. 3.
MUS Z105 - Traditions in World Music Cr. 3.
POLS Y109 - Introduction to International Relations Cr. 3.
POLS Y200 - Contemporary Political Topics Cr. 1-6,
POLS Y374 - International Organization Cr. 3.
POLS Y401 - Studies in Political Science Cr. 3.
SOC S308 - Introduction to Comparative Sociology Cr. 3.

Credits from the following in a non-Western area Credits: 6

ANTH E310 - Introduction to the Cultures of Africa Cr. 3.
ANTH E321 - Peoples of Mexico Cr. 3.
ANTH E330 - Indians of South America Cr. 3.
ANTH E455 - Anthropology of Religion Cr. 3.

ANTH E479 - Indian Cultures of Peru Cr. 3.
ENG L113 - Introduction to African Literature Cr. 3.
FWAS H201 - Humanities I: The Ancient World Cr. 3.
HIST D410 - Russian Revolutions and the Soviet Regime Cr. 3.
HIST D426 - History of Balkans: 1914 to Present Cr. 3.
HIST E332 - African History from Colonial Rule to Independence Cr. 3.
HIST F342 - Latin America: Evolution and Revolution Cr. 3.
HIST F346 - Modern Mexico Cr. 3.
HIST F432 - 20th Century Latin American Revolutions Cr. 3.
HIST F447 - U.S.-Latin American Relations Cr. 3.
HIST H202 - Russian Civilization I-II Cr. 3.
HIST T335 - Topics in Non-Western History Cr. 3.
POLS Y107 - Introduction to Comparative Politics Cr. 3.
POLS Y339 - Middle Eastern Politics Cr. 3.
POLS Y340 - East European Politics Cr. 3.
REL 30100 - Islam Cr. 3
SOC S410 - Advanced Topics in Social Organization Cr. 3.
SPAN S412 - Spanish America: The Cultural Context Cr. 3.

Additional Credits: 6

(may be chosen from the list below and/or from the list of non-Western courses above)

ANTH A460 - Topics in Anthropology Cr. 1-3.
ANTH E402 - Gender in Cross-Cultural Perspective Cr. 3.
CMLT C340 - Women in World Literature Cr. 3.
FINA H390 - Topics in Art History Cr. 3.
FINA H415 - Art of Pre-Columbian America Cr. 3.
FOLK F111 - Introduction to World Folk Music Cr. 3.
FOLK F305 - Asian Folklore Cr. 3.
FREN F464 - Civilisation Francaise II Cr. 3.
FWAS H202 - Humanities II: Foundations of the Modern Western World Cr. 3.
GER G362 - Introduction to Contemporary Germany Cr. 3.
GER G363 - Deutsche Kulturgeschichte Cr. 3.
HIST A345 - American Diplomatic History I Cr. 3.
HIST A346 - American Diplomatic History II Cr. 3.
HIST B361 - Europe in the 20th Century I Cr. 3.
HIST B378 - History of Germany II Cr. 3.
HIST H201 - Russian Civilization I-II Cr. 3.
HIST H202 - Russian Civilization I-II Cr. 3.
POLS Y335 - Western European Politics Cr. 3.
POLS Y350 - Politics of the European Union Cr. 3.
POLS Y367 - International Law Cr. 3.
POLS Y371 - Workshop in International Topics Cr. 3.
POLS Y376 - International Political Economy Cr. 3.
POLS Y401 - Studies in Political Science Cr. 3.
SPAN S411 - Spain: The Cultural Context Cr. 3.
WOST W301 - International Perspectives on Women Cr. 3.

Total Credits: 18

Foreign Language Requirement

In addition to the 18 credits stipulated above, students must demonstrate basic proficiency in a language other than English. The proficiency may be demonstrated by placing at the third-semester level or higher on the foreign language placement test, or by completing the first two semesters of a foreign language at the college level. Students who speak a language other than English are exempt from this requirement.

Labor Studies Certificate

Division of Labor Studies
Program Offered: Certificate in Labor Studies

Kettler Hall G28 ~ 260-481-6831 ~ www.labor.iu.edu

The student learning outcomes for the degree are not available for this degree, contact the program office.

To earn the certificate in labor studies, you must fulfill the requirements of IPFW (see Part 8) and successfully complete the following courses:

Program Requirements

Credits in the Labor Studies Core: 15
3 credits in each Required Area of Learning Credits: 9
Additional credits in one of the Required Areas of Learning Credits: 6

Credits from the Labor Studies Core Credits: 15

Credits from the following: 15

LSTU L100 - Survey of Unions and Collective Bargaining Cr. 3.
LSTU L101 - American Labor History Cr. 3.
LSTU L110 - Introduction to Labor Studies: Labor and Society Cr. 3.
LSTU L190 - The Labor Studies Degree Cr. 1.
LSTU L200 - Survey of Employment Law Cr. 3.
LSTU L201 - Labor Law Cr. 3.
LSTU L203 - Labor and the Political System Cr. 3.
LSTU L205 - Contemporary Labor Problems Cr. 3.
LSTU L210 - Workplace Discrimination and Fair Employment Cr. 3.
LSTU L220 - Grievance Representation Cr. 3.
LSTU L230 - Labor and the Economy Cr. 3.
LSTU L240 - Occupational Health and Safety Cr. 3.
LSTU L250 - Collective Bargaining Cr. 3.
LSTU L251 - Collective Bargaining Laboratory Cr. 1-3.
LSTU L255 - Unions in State and Local Government Cr. 3.
LSTU L260 - Leadership and Representation Cr. 3.
LSTU L270 - Union Government and Organization Cr. 3.
LSTU L280 - Union Organizing Cr. 3.

Required Areas of Learning for Labor Studies

Arts and Humanities

Afro-American Studies
Classical Studies
Communication
Comparative Literature
English (except R150 and W130)
Folklore
Foreign Language
History
Journalism
Music
Philosophy
Theatre
Visual Arts

Sciences and Mathematics

Anthropology (B200 and E445 only)
Astronomy
Biology
Chemistry (except 100)
Computer Science (includes BUS K200, K211, K212, K213, K214, K215, K216)
Economics (E270 only)
Entomology
Forestry and Natural Resources
Geography (G107 and G304 only)
Geology
Horticulture
Mathematics (except 101, 102, 103, 109, 111, and 113)
Physics
Psychology (120, 201, 314, 333, 329, and 416 only)
Sociology (S351 only)
SPEA (K300 only)
Statistics

Social and Behavior Sciences

Anthropology
Economics
Geography
Linguistics
Political Science
Psychology
Sociology
SPEA (J101 only)
WOST (W210 only)

3 credits in each Required Area of Learning Credits: 9

Additional credits in one of the Required Areas of Learning Credits: 6

Total Credits: 30

Native American Studies Certificate

Program: Certificate in Native American Studies
College of Arts and Sciences

Liberal Arts Building 153 ~ 260-481-6160

The student learning outcomes for the degree are as follows:

> The holder of this certificate will have knowledge of the cultures, prehistory, and creative and artistic expression of Native Americans. He or she will be able to apply this knowledge in pursuit of social work or economic development work on behalf of Native American Organizations.

A certificate in Native American studies is available to all IPFW students. The program provides an appreciation of the cultures, prehistory, history, and creative and artistic expression of Native Americans for the benefit of those who may be interested in social work, economic development, and Native American organizations.

To earn the certificate, you must meet all regular IPFW admission requirements (see Part 8) and complete the following courses with a grade of C or higher in each course:

Program Requirements

Credits in ethnography of Native Americans chosen from the following: Credits: 6

    ANTH E320 - Indians of North America Cr. 3.
    ANTH E321 - Peoples of Mexico Cr. 3.
    ANTH E330 - Indians of South America Cr. 3.
    HIST A310 - Survey of American Indians I Cr. 3.
    HIST A311 - Survey of American Indians II Cr. 3.

Credits in prehistory of Native Americans chosen from the following: Credits: 3

    ANTH E335 - Ancient Civilizations of Mesoamerica Cr. 3.
    ANTH P360 - Archaeology of North America Cr. 3.
    ANTH P370 - Ancient Cultures of South America Cr. 3.

Credits in history of Native Americans chosen from the following: Credits: 3

    HIST A310 - Survey of American Indians I Cr. 3.
    HIST A311 - Survey of American Indians II Cr. 3.
    HIST A318 - The American West Cr. 3.
    HIST F341 - Latin America: Conquest and Empire Cr. 3.
    HIST F342 - Latin America: Evolution and Revolution Cr. 3.
    HIST F432 - 20th Century Latin American Revolutions Cr. 3.

Credits in Native American studies chosen from the following: Credits: 3

ENG L364 - Native American Literature Cr. 3.
FINA H415 - Art of Pre-Columbian America Cr. 3.
FOLK F352 - Native American Folklore Cr. 3.

Additional credits from the lists above or in an approved elective Credits: 3

Total Credits: 18

Peace and Conflict Studies Certificate

Program: Certificate in Peace and Conflict Studies
College of Arts and Sciences

Liberal Arts Building 153 ~ 260-481-6019

The student learning outcomes for the degree are as follows:

Explain sources of conflict as rooted in inequality and injustice, including issues of race, ethnicity, color, gender, sexual orientation, class, age, disabilities, and/or religious affiliation.

Explain the dynamics of conflict at various social levels, including interpersonal, group, organization. community, society, and/or global.

Explain varying perspectives on peace and differing paths to achieve it.

Synthesize a critique of violent techniques of conflict resolution such as war and oppression.

Demonstrate commitment to social justice and nonviolent conflict resolution.

Demonstrate skills in employing nonviolent conflict resolution strategies and promoting social change.

A certificate in peace and conflict studies is available to all IPFW students who wish to understand the dynamics of conflict as well as various paths toward peace, from the interpersonal to the global level. To earn this certificate, you must complete the following 15 credits with a grade of C or higher in each course:

Program Requirements

One of the following: Credits: 3

PACS P200 - Introduction to Peace and Conflict Studies - Humanities Perspectives Cr. 3.
PACS P201 - Introduction to Peace and Conflict Studies - Social/Behavioral Sciences Perspectives Cr. 3.

Credits in a social and behavioral sciences courses Credits: 3

Chosen from a list available in the School of Arts and Sciences office.

Credits in a humanities course Credits: 3

Chosen from a list available in the School of Arts and Sciences office.

Credits in another course Credits: 3

Chosen from either the humanities course list or the social and behavioral sciences course list.

One of the following senior-project courses: Credits: 3

PACS P497 - Humanities Readings and Research in Peace and Conflict Studies Cr. 1-3.
PACS P498 - Social and Behavioral Sciences Readings and Research in Peace and Conflict Studies Cr. 1-3.
PACS P499 - Social and Behavioral Sciences Internship in Peace and Conflict Studies Cr. 1-3.

Total Credits: 15

Piano Pedagogy Certificate

Program: Certificate in Piano Pedagogy
Department of Music
College of Visual and Performing Arts

Rhinehart Music Center (RC) 144 ~ 260-481-6714 ~ www.ipfw.edu/vpa/music

The student learning outcomes for the degree are as follows:

Performance. Students will demonstrate the ability to perform competently in public on a principal instrument or voice as a soloist and as a member of a major ensemble.

Music Theory. Students will demonstrate:
- knowledge of musical form, structures, concepts, and terms
- skill and fluency in application through analysis
- ability to compose within basic musical structures
- perspective regarding historical styles and structures
- ability to relate the cognitive to aural perception and to aesthetic response

Aural Perception. Students will demonstrate the ability to:
- read and sing melodic lines with accurate intonation
- read and perform complex rhythms accurately
- recognize and notate melodic, rhythmic, and harmonic patterns and progressions

Keyboard. All music majors will be able to use the keyboard as a basic tool and will demonstrate the ability to:
- perform appropriate technical skills such as scales, arpeggios, etc.
- play chord progression from Roman numerals
- improvise
- play "by ear" and from lead sheets
- harmonize melodic lines
- perform repertoire at the intermediate level
- transpose simple pieces and lead sheets
- sight read at the late elementary level
- play from 4-part open score.

Technology. Students will demonstrate a basic overview of how technology serves the field of music as a whole including the following:
- knowledge of computer hardware
- ability to use notational software
- ability to use the Internet as a resource for research.

Program Requirements

If you intend to be a professional piano studio teacher, you may earn the certificate in piano pedagogy by satisfying the requirements of IPFW (see Part 8) and the College of Visual and Performing Arts (see Part 4), completing the following courses, and earning a grade of C or better in each:

Credits in applied music Credits: 8

Credits in ensemble course(s) Credits: 2
MUS E193 - Piano Pedagogy I Cr. 2.
MUS E194 - Piano Pedagogy II Cr. 2.
MUS E293 - Piano Pedagogy III Cr. 2.
MUS E294 - Piano Pedagogy IV Cr. 2.
MUS M201 - Music Literature I Cr. 2.
MUS M202 - Music Literature II Cr. 2.
MUS T113 - Music Theory I Cr. 3.
MUS T114 - Music Theory II Cr. 3.
MUS T115 - Sightsinging and Aural Perception I Cr. 1.
MUS T116 - Sightsinging and Aural Perception II Cr. 1.
MUS X296 - Applied Music Upper Divisional Jury Examination Cr. 0.
MUS X299 - Piano Proficiency Examination Cr. 0.

Total Credits: 30

Quality Certificate

Program: Certificate
Department of Manufacturing and Construction Engineering Technology and Interior Design
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 205 ~ 260-481-4127 ~ www.mcet.ipfw.edu

The student learning outcomes for the degree are as follows:

An appropriate mastery of the knowledge, techniques, skills and modern tools of quality, metrology, SPC, SQC, TQM, ISO standards, and DOE.

This certificate program prepares graduates with skills in techniques related to quality, such as design of experiments, metrology, and statistical process control. The program provides focused study in the techniques of maintaining and improving quality of manufacturing processes.

Credits earned in the certificate program may be applied toward the associate and bachelor's programs in industrial engineering technology.

Program Requirements

To earn the certificate, you must fulfill the requirements of IPFW (see Part 7) and complete the following courses, earning a grade of C or better in those courses that serve as prerequisites:

IET 10500 - Industrial Management Cr. 3.
IET 20004 - Techniques of Maintaining Quality Cr. 3.
    Grade of C or better required
IET 30400 - Advanced Metrology Cr. 3.

IET 45400 - Statistical Process Control Cr. 3.
STAT 30100 - Elementary Statistical Methods I Cr. 3.
    Grade of C or better required

One of the following: Credits: 5-6

MA 15300 - Algebra and Trigonometry I Cr. 3.
    and
MA 15400 - Algebra and Trigonometry II Cr. 3.
    Grade of C or better required
    or
MA 15900 - Precalculus Cr. 5.
    Grade of C or better required

Total Credits: 20-21

Risk and Emergency Management Certificate

Program: Certificate in Risk and Emergency Management
Division of Public and Environmental Affairs

Neff Hall 260 ~ 260-481-6351 ~ www.ipfw.edu/spea/

The student learning outcomes for the degree are as follows:

The certificate in Risk and Emergency Management will inform and enhance the knowledge base and skills level
    of those who are responsible for managing risks and emergencies.
The certificate in risk and emergency management is recommended for students from any major that, during their
careers, may directly or indirectly be involved in managing emergencies and disasters. Students need not be enrolled in
a degree program to complete this certificate.

To earn the certificate, students must complete at least 11 credit hours as residency credits at IPFW. A grade point
average of 2.0 or higher is required in all course work credited toward the certificate.

Program Requirements

CS 29200 - Intermediate Topics in Computer Science Cr. 2-3.
    Approved topic: Technology and Emergency Management (SPEA V465, GIS Mapping, may be taken as
    substitute)
HSC 49900 - Special Topics in Health Sciences Cr. 2-6.
SOC S410 - Advanced Topics in Social Organization Cr. 3.
    Approved Topic: The Social Dimension of Disasters (SPEA J370, The Social and Mental Health Dimensions
    of Disasters, may be taken as a substitute)
SPEA V275 - Introduction to Emergency Management Cr. 3.
SPEA V387 - Public Administration and Emergency Management Cr. 3.
SPEA V389 - Risk and Hazard Mitigation Cr. 3.

And Select One of the Following:

POLS Y200 - Contemporary Political Topics Cr. 1-6,
POLS Y401 - Studies in Political Science Cr. 3.

Total Credits: 21

Supervisory Leadership Certificate

Program: Certificate
Division of Organizational Leadership and Supervision
College of Engineering, Technology, and Computer Science

Neff Hall 288 ~ 260-481-6420 ~ www.ipfw.edu/ols

The student learning outcomes for the degree are as follows:

Students will demonstrate an understanding of contemporary issues and theories in the areas of leadership, human resources systems and team design and facilitation.
Students will demonstrate an understanding of organizational behavior at the individual, group and organizational levels of analysis using theories derived from several behavioral sciences.
Students will be able to apply theories to real organizational and leadership problems.
Students will demonstrate effective oral and written communication skills.

This certificate program helps you prepare for supervisory leadership positions in any industry. The classes can later be applied toward an associate degree and bachelor's degree with a major in organizational leadership and supervision. Interested individuals must apply for the program before completing 9 hours of applicable course work.

The certificate option is available to community members who enter as non-degree seeking students and to students in good academic standing who are enrolled in non-OLS plans of study. OLS-degree-seeking students are not eligible to enter the certificate program.

To earn the certificate, you must fulfill the requirements of IPFW (see Part 8) and the College of Engineering Technology and Computer Science, Division of Organizational Leadership and Supervision (see Part 4), complete the following courses, and earn a grade of C or better in each course:

Program Requirements

OLS Elective Credits: 3
COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
OLS 25200 - Human Relations in Organizations Cr. 3.
OLS 26800 - Elements of Law Cr. 3.
OLS 27400 - Applied Leadership Cr. 3.
OLS 37500 - Training Methods Cr. 3.

Total Credits: 21

See the OLS advisor for a list of approved OLS electives.

Teaching English as a New Language Certificate

Program: Certificate in Teaching English as a New Language
Department of English and Linguistics

Liberal Arts Building 145 ~ 260-481-6841 ~ www.ipfw.edu/engl

The undergraduate certificate in Teaching English as a New Language (TENL) prepares students for Teaching English to Speakers of Other Languages (TESOL) in a variety of learning venues world-wide. It is intended primarily for students who, while they work towards a baccalaureate degree ,wish to develop credentials for teaching English as a new or additional language. Other potential audiences include individuals who wish to obtain professional training in teaching English to speakers of other languages for career opportunities overseas.

Our TENL program matches most other such academic programs nationwide. The required courses will familiarize students with the major theoretical perspectives, pedagogies, and resources of English language teaching. The capstone Practicum provides students with real-world experience through teaching English language learners, in classroom settings.

The undergraduate TENL Certificate will be able to any student who has completed the program requirements successfully. It can stand alone as a separate credential or be integrated within the requirements of the B.A. program in English as an option in the English Language Concentration**.** Some courses may also apply to a degree from the School of Education.

In addition, an add-on English as a New Language (ENL) **licensure endorsement** is available to TENL Certificate students who are licensed teachers, candidates who are already licensed in specific content area(s) at specific grade levels, or prospective teachers who are in the process of obtaining such a license. Please see the special requirements below for the licensure endorsement.

Certificate Requirements

The TENL certificate will require satisfactory completion of eighteen credit hours of course work in the areas of ENL pedagogy and materials preparation, second language acquisition theories, sociolinguistics and cultural issues, English grammar, and practical classroom experiences. No course with a grade below 2.0 will count toward the TENL certificate. Satisfactory completion of LING L103 or equivalent is a prerequisite for all courses at the 300-level and higher.

Courses Required for the Undergraduate Certificate in TENL

(LING L103 or equivalent is a prerequisite for all TENL courses, 300-level or higher.)

Grammar Credits: 3

ENG G302 - Structure of Modern English (TESOL) Cr. 3.

Practicum Credits: 3

LING L470 - TENL Practicum Cr. 3.

Sociolinguistics Credits: 3

LING L360 - Language in Society Cr. 3.

Language Acquisition Credits: 3

ENG G432 - Second Language Acquisition Cr. 3.

Methods Credits: 6

LING L321 - Methods and Materials for TESOL I Cr. 3.
LING L322 - Methods and Materials for TESOL II Cr. 3.

Total Credits: 18

Admission Requirements

The existing requirements for admission as an unassigned or non-degree-seeking student apply to those who wish to earn the certificate as a stand-alone credential. Existing requirements for admission, completion, and residency, and eligibility apply to those who wish to earn the certificate as part of a degree program.

As of Fall, 2009, up to and no more than nine credit hours of required courses taken prior to formal admission to the TENL Program will be accepted as applying to completion of certificate requirements.

Licensure Endorsement

The Department of English and Linguistics, in conjunction with the School of Education (SOE), offers an endorsement in Teaching English as a New Language to licensed teachers, candidates who are already licensed in specific content area(s) at specific grade levels, or prospective teachers who are in the process of obtaining such a license.

Licensure Endorsement Requirements

The licensure endorsement will require satisfactory completion of eighteen credit hours of course work in the areas of ENL pedagogy and materials preparation, second language acquisition theories, sociolinguistics and cultural issues, English grammar and practical classroom experiences.

In addition to regular IPFW admission standards as presented in the IPFW Bulletin, students must meet the School of Education's requirements for admission to the teacher education program and meet the following criteria:

Success passage of PPST
Minimum GPA of 2.5
Completion of LING L103

Students must maintain a minimum overall GPA of 2.5 or better (of 4.0) in the program. No course with a grade below 2.0 will count toward the licensure endorsement. Satisfactory completion of LING L103 or equivalent is a prerequisite for all courses at the 300-level and higher.

After completion of all coursework in the TENL Certificate program, those seeking the licensure endorsement must apply to the state of Indiana to have the endorsement applied to their license. Students will be assisted with applications through the Department of English and Linguistics and the School of Education.

Women's Studies Certificate

Program: Certificate
College of Arts and Sciences

Liberal Arts Building 35F ~ 260-481-6711 ~ www.ipfw.edu/wost

The student learning outcomes for the degree are as follows:

> demonstrate understanding of major categories of feminist critical analysis, such as gender, race and class
> demonstrate the ability to think critically about major issues in feminism

Women's studies is based on the premise that the study of women's experiences, concerns, social roles, and creativity is essential to our knowledge of humankind and society. Feminist scholarship and theory provide the knowledge and analytical tools necessary for a gender-balanced perspective on our world, both past and present. The Women's Studies Program affords you the opportunity to pursue feminist scholarship on women and gender through a variety of interdisciplinary courses.

See College of Arts and Sciences in Part 4 for further information.

The Women's Studies Certificate is designed for students majoring in academic programs outside the College of Arts and Sciences who are interested in a concentration of course work in women's studies. This program is also appropriate for community members who wish to augment or update past academic studies in a field that has relevance for today's more diverse workforce and society. The required 21 credits are allocated as follows and must be completed with a grade of C or higher in each course:

Program Requirements

> One cross-listed course from the student's department, division, or school to be counted in the student's major as well as in the certificate, or any other WOST-prefixed or cross-listed course Credits: 3
> WOST-prefixed or cross-listed course in science or social science Credits: 3
> WOST-prefixed or cross-listed course in visual arts or humanities Credits: 3
> WOST-prefixed or cross-listed course Credits: 3
> WOST W210 - Introduction to Women's Studies Cr. 3.
> WOST W301 - International Perspectives on Women Cr. 3.
> WOST W400 - Topics in Women's Studies Cr. 3.
>> (the capstone course)

Total Credits: 21

Concentration

Accounting Area Concentration

Program: B.S.B.
Department of Accounting and Finance
Richard T. Doermer School of Business and Management Sciences

Neff Hall Room 350 ~ 260-481-6471 ~ www.ipfw.edu/bms

The accounting concentration provides you with academic preparation for careers in auditing, corporate accounting and management services, governmental and nonprofit organizations, public accounting, and taxation. In addition, it equips you with a management tool for intelligent analysis, prediction, decision making, and control.

Upon successfully completing the B.S.B. and accounting concentration requirements, you may be eligible to sit for various professional certification examinations. Students interested in sitting for these examinations should check with the Department of Accounting and Finance (Neff 350) for further information.

You are encouraged to inquire about accounting internships through the co-op program that may be available to you.

To earn the accounting area concentration, you must earn a grade of C or better in each of the following courses:

Program Requirements

BUS A311 - Intermediate Accounting I Cr. 3.
BUS A317 - Computer-Based Accounting Systems Cr. 3.
BUS A325 - Cost Accounting Cr. 3.
BUS A331 - Taxation of Business Entities Cr. 3.

Credits in four of the following Credits: 12

BUS A312 - Intermediate Accounting II Cr. 3.
BUS A314 - Financial Statement Analysis Cr. 3.
BUS A332 - Taxation of Individuals Cr. 3.
BUS A422 - Advanced Financial Accounting Cr. 3.
BUS A424 - Auditing Cr. 3.
BUS A425 - Contemporary Accounting Theory Cr. 3.
BUS A437 - Advanced Management Accounting Cr. 3.
BUS A439 - Advanced Auditing Cr. 3.
BUS L303 - Commercial Law II Cr. 3.

Note

The department offers a certificate program in accounting for individuals who have completed a nonaccounting baccalaureate degree. See Accounting under Program Descriptions in the *Bulletin*.
The department offers an optional program to accommodate Indiana's new requirement of 150 hours of education to obtain the CPA certificate. You may contact the department chair for further information.

Business Economics and Public Policy Area Concentration

Program: B.S.B.
Department of Economics
Richard T. Doermer School of Business and Management Sciences

Neff Hall Room 340 ~ 260-481-6794 ~ www.ipfw.edu/bms

The business economics concentration explores the economic environments in which businesses must operate, as well as the interrelationships among micro-and macroeconomic conditions, private-sector decision making, and governmental programs. You have opportunities to study economic problems and their alternative solutions. You may also study aspects of employment, inflation, international trade, and other economics subject areas.

If you wish to become a professional economist, you should prepare for graduate study by taking additional courses in mathematics, statistics, computer science, and/or research methods.

To earn the business economics and public policy area concentration, you must earn a grade of C or better in each of the following courses:

Program Requirements

Credits in an approved 300/400 level economics course Credits: 6
ECON E406 Senior Seminar in Economics Credits: 3
ECON E321 - Intermediate Microeconomic Theory Cr. 3.
ECON E322 - Intermediate Macroeconomic Theory Cr. 3.

Total Credits: 15

English and Communication Media Concentration

Department of English and Linguistics

Liberal Arts Building 145 ~ 260-481-6841 ~ www.ipfw.edu/engl

To earn a BA with a major in English, you must complete the core requirements and credits in one of five area concentrations. Other concentrations include literature, teacher certification, writing, and language

Program Requirements

Credits in two 300- or 400-level writing courses (ENG W331, W350, W365, W398, W420, W462; JOUR J310) Credits: 6
Credits in classics, comparative literature, English, film, or folklore Credits: 3
JOUR J200 - Reporting, Writing and Editing I . Credits: 3

One of the following Credits: 3

COM 25000 - Mass Communication and Society
JOUR C200 - Mass Communications
JOUR J110 - Foundations of Journalism and Mass Communication

Note

In addition, you must complete a minor in one of the following outside fields: business studies, communication studies, journalism, international language and culture studies, professional writing, or fine arts. No more than 6 credits applied to the minor will apply to the major.

English Language Concentration

Department of English and Linguistics

Liberal Arts Building 145 ~ 260-481-6841 ~ www.ipfw.edu/engl

To earn a BA with a major in English, you must complete the core requirements and credits in one of five area concentrations. Other concentrations include literature, teacher certification, writing, and communication media.

Program Requirements

One of the following Credits: 3

LING L103 - Introduction to the Study of Language
LING L303 - Introduction to Linguistic Analysis

One of the following Credits: 3

ENG G301 - History of the English Language
ENG L304 - Old English Language and Literature

One of the following Credits: 3

COM 52100 - Theories of Rhetoric
ENG W310 - Language and the Study of Writing
ENG W462 - Studies in Rhetoric and Composition
LING L360 - Language in Society

Credits In Two Additional Courses in Linguistics Credits: 6

Including AUS 306, the English language, anthropological linguistics (including ANTH L200 and L400), or psycholinguistics (including AUS 181, 182, 309; PSY 426, 526)

Note

The department recommends the study of a second foreign language with a foreign-language minor.

English Literature Concentration

Department of English and Linguistics

Liberal Arts Building 145 ~ 260-481-6841 ~ www.ipfw.edu/engl

To earn a BA with a major in English, you must complete the core requirements and credits in one of five area concentrations. Other concentrations include teacher certification, writing, language, and communication media.

Program Requirements

Credits in one additional course in American literature. Credits: 3
Credits in one additional course in British literature before 1700. Credits: 3
Credits in one additional course in British literature after 1700. Credits: 3
Credits in two additional courses in classics, comparative literature, English, film, or folklore. Credits: 6

Note

If you plan to work toward advanced degrees (M.A., Ph.D.) in English, the department recommends additional period or major-author courses and study of a second foreign language. If you are a prelaw student, the department recommends upper level writing courses.

English Teacher Certification Concentration

To earn a BA with a major in English, you must complete the core requirements and credits in one of five area concentrations. Other concentrations include literature, writing, language, and communication media.

The student learning outcomes for the degree are as follows:

Students demonstrate their acquisition of the fundamental skills necessary for the secondary education classroom; knowledge of American and British literary texts; fundamental rules of oral and written communication; acquisition pedagogical methodologies necessary for the instruction of literature and language in a secondary education environment.

Students exhibit the application of their knowledge of literature, language, and communication to the teaching of others.

(21 Credits Plus 32 Professional Education Credits)

To be eligible for teacher certification, you must earn a GPA of 2.00 or higher in each general education area. You should work closely with your advisor to ensure completion of general education requirements. You must also earn a cumulative GPA of 2.50 or higher in your major area and the professional education courses with an overall GPA of 2.5 or higher. Each professional education course must be completed with a grade of C or better.

The School of Education requires that you first complete EDUA F300, EDUC W200/M101, and EDUC K201 before you are permitted to take professional education courses. Prior to your junior year, you must successfully complete the Pre-Professional Skills Test (PPST) before admission to the teacher education program. The PRAXIS II Specialty Area Exam must be completed before or during the student-teaching semester, normally in your senior year.

Program Requirements

Credits in one additional course in language study. Credits: 3
Credits in one course in ethnic, minority, or non-Western literature. Credits: 3
Credits in one course in Western literature other than British or American. Credits: 3
Credits in one course in mass communication, including journalism and film. Credits: 3
Credits in one additional course, 300 level or higher, in writing, literature, language study, or mass communication. Credits: 3

ENG L391 - Literature for Young Adults. Credits: 3
ENG W400 - Issues in Teaching Writing. Credits: 3

School of Education Requirements

Prior to being admitted to the teacher education program, you must complete the Initial Requirement courses and pass the PPST.

Initial Requirements

EDUA F300 - Topical Exploration in Education Cr. 1-3.
EDUC K201 - Schools, Society, and Exceptionality Cr. 1-3.
EDUC M101 - Laboratory/Field Experience Cr. 0-3.
EDUC W200 - Using Computers for Education Cr. 1.

Block I

EDUC H340 - Education and American Culture Cr. 2-3.
EDUC K206 - Teaching Methods for Students with Special Needs Cr. 1-3.
EDUC P250 - General Educational Psychology Cr. 1-4.
EDUC M201 - Laboratory/Field Experience Cr. 0-3.

Block II

EDUC M447 - Methods of Teaching High School English Cr. 3.
EDUC M401 - Laboratory/Field Experience Cr.0-3.
EDUC P253 - Educational Psychology for Secondary Teachers Cr. 1-4.
EDUC M301 - Laboratory/Field Experience Cr. 0-3.
EDUC X401 - Critical Reading in the Content Area Cr. 1-3.

Student Teaching

EDUC M480 - Student Teaching in the Secondary School Cr. 1-16.
    Credits: 12
EDUC M501 - Lab/Field Experience Cr. 0-3.
    Credits: 0

Middle School Certification (Recommended)

EDUC M470 - Practicum Cr. 3-8.
    Credits: 4

Note

A certificate or licensure endorsement to teach English as a New Language is also available.

Finance Area Concentration

Program: B.S.B.
Department of Accounting and Finance
Richard T. Doermer School of Business and Management Sciences

Neff Hall Room 350 ~ 260-481-6471 ~ www.ipfw.edu/bms

The finance concentration is composed of courses that have been selected to familiarize you with the theory, instruments, and institutions of finance, and with a financial approach for structuring and analyzing management decisions. The study of finance provides a basis for careers in corporate financial management, as well as executive positions in commercial banking, savings and credit institutions, and the investment field.

To earn the finance area concentration, you must earn a grade of C or better in each of the following courses:

Program Requirements

BUS F303 - Intermediate Investments Cr. 3.
BUS F310 - Financial Statement Analysis - Finance Perspective Cr. 3.
BUS F345 - Money/Banking/Capital Markets Cr. 3.
ECON E321 - Intermediate Microeconomic Theory Cr. 3.

Credits in four of the following: 12

BUS A325 - Cost Accounting Cr. 3.
BUS F420 - Equity and Fixed Income Investments Cr. 3.
BUS F446 - Management of Commercial Banks and Other Financial Institutions Cr. 3.
BUS F494 - International Finance Cr. 3.
ECON E322 - Intermediate Macroeconomic Theory Cr. 3.

Total Credits: 24

Management and Administration Area Concentration

Program: B.S.
Department of Management and Marketing
Richard T. Doermer School of Business and Management Sciences

Neff Hall Room 340 ~ 260-481-6470 ~ www.ipfw.edu/bms

The management and administration concentration provides you with an opportunity to study a broad scope of business and economics subjects, as well as concepts and theories of managing complex business operations. The courses stress goal setting, planning, controlling, and problem solving in the context of major business firms in domestic and international environments.

To earn the management and administration area concentration, you must earn a grade of C or better in each of the following courses:

Program Requirements

Credits in two additional 400-level management courses (Courses that start with D, K, W, P, or Z) The one exception is M426 Sales Management, which will also count as a management elective. Credits: 6

One semester of a foreign language of your choice. Credits: 3

ILCS I350 International Communications. Credits 3

BUS D300 - International Business Administration Cr. 3.

BUS K327 - Deterministic Models in Operations Research Cr. 3.

BUS Z440 - Personnel: Human Resources Management Cr. 3.

Total Credits: 21

Marketing Area Concentration

Program: B.S.
Department of Management and Marketing
Richard T. Doermer School of Business and Management Sciences

Neff Hall Room 340 ~ 260-481-6470 ~ www.ipfw.edu/bms

The marketing area concentration is concerned with the movement of goods and services from the producer to the customer. It encompasses such topics as consumer behavior, product development, pricing, channels of distribution, promotion, marketing research, and effective management of corporate marketing operations.

To earn this area concentration, you must earn a grade of C or better in each of the following courses:

Program Requirements

Credits in two additional 400-level marketing courses Credits: 6

(BUS courses starting with M4_ _ meet this requirement, along with the K490 ECommerce course and D490 Special Studies in International Business.)

One semester of a foreign language. Credits 3

ILCS I350 International Communication. Credits 3

BUS D300 - International Business Administration Cr. 3.

BUS M303 - Marketing Research Cr. 3.

BUS M450 - Marketing Strategy and Policy Cr. 3.

ILCS I350 - International Communication Cr. 3.

Total Credits: 21

Writing Concentration

Program: Concentration
Department of English and Linguistics

Liberal Arts Building 145 ~ 260-481-6841 ~ www.ipfw.edu/engl

To earn a BA with a major in English, you must complete the core requirements and credits in one of five area concentrations. Other concentrations include: literature, teacher certification, language and communication media.

Program Requirements

Credits in three W-prefixed courses in writing (ENG W203 or courses above the 200 level). Credits: 9
Credits in one course in writing above the 300 level. Credits: 3
Credits in one additional course in classics, comparative literature, English, film, or folklore. Credits: 3

Note

If you are interested in writing professionally, the department recommends a minor in business studies or journalism.

Dual Degree

Electrical Engineering (B.S.E.E.) and Physics (B.S.) Dual Degree

Programs: B.S.E.E. & Physics (B.S.)
Department of Engineering & Department of Physics
College of Engineering, Technology, and Computer Science & College of Arts and Sciences

Engineering, Technology, and Computer Science Building 327 ~ 260-481-6362 ~ www.engr.ipfw.edu
Kettler Hall 126B ~ 260-481-6306 ~ www.ipfw.edu/physics/

You may choose to complete a dual degree in Electrical Engineering and Physics by completing all of the requirements in both the BSEE and the Physics (B.S.) programs. With overlapping coursework, the dual degree requires 156 hours.

Endorsement

License in English as a New Language

Program: License in English as a New Language
Department of English and Linguistics

Liberal Arts Building 145 ~ 260-481-6841 ~ www.ipfw.edu/engl

The Department of English and Linguistics, in conjunction with the School of Education (SOE), offers an add-on license in teaching English as a New Language (ENL) to licensed teachers, candidates who are already licensed in specific content area(s) at specific grade levels, or prospective teachers who are in the process of obtaining such a license.

Our program features a structured and balanced curriculum, providing education graduates with solid theoretical foundation for second language teaching and learning as well as sound pedagogical training in developing approaches,

skills and techniques to teach or work with English language learners in P-12 school settings. The curriculum prepares students as credentialed, knowledgeable professionals in teaching English as a new language.

License Requirements

The ENL license will require satisfactory completion of eighteen credit hours of course work in the areas of ENL pedagogy and materials preparation, second language acquisition theories, sociolinguistics and cultural issues, English grammar, and practical classroom experiences.

Courses Required for the Undergraduate License in ENL

(LING L103 or equivalent is a prerequisite for all TENL courses, 300-level or higher.)

Grammar

ENG G302 - Structure of Modern English (TESOL) Cr. 3.

Methods

LING L321 - Methods and Materials for TESOL I Cr. 3.
LING L322 - Methods and Materials for TESOL II Cr. 3.

Language Acquisition

ENG G432 - Second Language Acquisition Cr. 3.

Sociollinguistics

LING L360 - Language in Society Cr. 3.

Practicum

LING L470 - TENL Practicum Cr. 3.

Program Restrictions

Students must maintain a minimum overall GPA of 2.5 or better (of 4.0) in the program. No course with a grade below 2.0 will count toward the ENL License. Satisfactory completion of LING L103 or equivalent is a prerequisite for all courses at the 300-level and higher.

Admission Requirements

All students will be required to meet regular IPFW admission standards as presented in the IPFW Bulletin. In addition, students must meet the School of Education's requirements for admission to the teacher education program and meet the following criteria:

Successful passage of PPST

A minimum GPA of 2.5
Completion of LING L103
As of Fall, 2009, up to and no more than nine credit hours of required courses taken prior to formal admission to the TENL Program will be accepted as applying to completion of the License in ENL.

Middle School/Junior High Endorsement

Program: Endorsement
Department of Educational Studies
School of Education

Neff Hall 250 ~ 260-481-6441 ~ www.ipfw.edu/educ

In addition to the major in elementary education or secondary education students may earn a middle school/junior high endorsement in language arts, mathematics, earth and space science, and/or historical perspectives. Each endorsement requires 24 credits of content courses and a 4-credit middle school practicum. If completing more than one endorsement, you only need one practicum for all endorsements.

EDUC M470 Practicum: Middle School: Credits: 4

Language Arts (24 credits)

British literature elective (300 level or higher) Credits: 3
American literature elective (300 level or higher) Credits: 3

One of the following: Credits: 3

ENG L101 - Western World Masterpieces I: Ancient to Renaissance Cr. 3.
ENG L102 - Western World Masterpieces II: Renaissance to Modern Cr. 3.
    Multicultural Literature Cr. 3.

One of the following: Credits: 3

ENG L202 - Literary Interpretation Cr. 3.
ENG W233 - Intermediate Expository Writing Cr. 3.

One of the following: Credits: 3

ENG G205 - Introduction to the English Language Cr. 3.
ENG G206 - Introduction to the Study of Grammar Cr. 3.
LING L103 - Introduction to the Study of Language Cr. 3.

One of the following: Credits: 3

COM 25000 - Mass Communication and Society Cr. 3.
JOUR C200 - Mass Communications Cr. 3.

One of the following: Credits: 3

ENG L390 - Children's Literature Cr. 3.
ENG L391 - Literature for Young Adults Cr. 3.

One of the following: Credits: 3

EDUC E340 - Methods of Teaching Reading I Cr. 2-3.
    Credits: 3
EDUC X401 - Critical Reading in the Content Area Cr. 1-3.
    Credits: 3

Earth and Space Science (24 credits)

Science electives Credits: 0–2
AST A100 - The Solar System Cr. 3.
BIOL 10000 - Introduction to the Biological World Cr. 3.
BIOL 10001 - Introduction to the Biological World Laboratory Cr. 1.
CHM 11100 - General Chemistry Cr. 3.
GEOL G100 - General Geology Cr. 3-5.
    Credits: 3

One of the following Credits: 3

BIOL 34900 - Environmental Science Cr. 3.
GEOG G315 - Environmental Conservation Cr. 3.
GEOL G300 - Environmental and Urban Geology Cr. 3.

One of the following Credits: 3-5

PHYS 13100 - Concepts in Physics I Cr. 3.
PHYS 15200 - Mechanics Cr. 5.

One of the following Credits: 3

EDUC Q200 - Introduction to Scientific Inquiry Cr. 1-3.
    Credits: 3
EDUC Q400 - Man and Environment: Instructional Methods Cr. 3.

Mathematics (24 credits)

Computer science elective Credits: 3
Mathematics, computer science, or statistics electives Credits: 2–3
MA 10100 - Mathematics for Elementary Teachers I Cr. 3.
MA 10200 - Mathematics for Elementary Teachers II Cr. 3.
MA 10300 - Mathematics for Elementary Teachers III Cr. 3.
MA 15300 - Algebra and Trigonometry I Cr. 3.
    (or waiver)

STAT 12500 - Communicating with Statistics Cr. 3.

One of the following Credits: 3-4

MA 16500 - Analytic Geometry and Calculus I Cr. 4.
MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.

Historical Perspectives (24 credits)

American history Credits: 3
Sociology Credits: 3
Political science Credits: 3
Social studies electives Credits: 6
PSY 12000 - Elementary Psychology Cr. 3.

One of the following Credits: 3

ECON E200 - Fundamentals of Economics Cr. 3.
ECON E201 - Introduction to Microeconomics Cr. 3.

One of the following Credits: 3

FWAS H201 - Humanities I: The Ancient World Cr. 3.
FWAS H202 - Humanities II: Foundations of the Modern Western World Cr. 3.
HIST H232 - The World in the 20th Century Cr. 3.

Honors

Honors Program Certificate

Program: Certificate
All Baccalaureate Degrees

Walb Union G25 ~ 260-481-6924 ~ www.ipfw.edu/honors

The student learning outcomes for the certificate are as follows:

Students are expected to demonstrate the following skills:

Critical thinking
Analysis and synthesis
Problem solving
Clear oral and written expression
Ability to conduct research
Independent thinking

The Honors Program is an undergraduate program that seeks to create learning opportunities and an environment of intellectual excitement and discovery through enriched courses of study and activities within a learning community. Through involvement with the Honors Program, honors students enter into a partnership of learning that extends well

beyond the classroom to incorporate an interdisciplinary approach with career-oriented skills. Rich course opportunities and tailored projects create an individual curriculum for each student.

The program is open to students of all majors and undergraduate degrees. Traditional incoming students become eligible for the Honors Program by meeting any one of the following criteria: placing in the top 10 percent of their high school's graduating class, scoring a 650 SAT in any one category, or attaining a 1800 SAT (or 27 ACT) composite score. Any student may participate in the Honors Program after 12 or more credit hours with GPA-related grades at IPFW and a 3.3 GPA or higher. Transfer students eligible for the program must have at least 12 credit hours of GPA-related grades (A, B, C, D, F, IF) with an equivalent of at least a 3.5 GPA on a 4.0 scale from the transferring institution.

To earn the certificate along with the Honors Pin, you must fulfill the requirements of IPFW (see Part 8) and the Honors Program, which are as follows:

> 18 credits of honors coursework through honors courses or H-options
> An honors project (including presentation and paper).
> Honors courses that represent at least two disciplines.
> At least three honors credits at the 300-level or above.
> Both cumulative and honors GPA of 3.5 or higher.
> Fulfill the requirements for a baccalaureate degree at IPFW.

In addition, students are highly encouraged to earn at least three credits of non-project honors coursework through honors courses. Because the Honors Program is an undergraduate program, all of the requirements of the program must be completed while the student is pursuing an undergraduate degree. Upon completion of such a degree, further completion of program requirements will not take effect unless work toward a different undergraduate baccalaureate degree is undertaken.

Minor

Anthropology Minor

Program: Minor
Department of Anthropology
College of Arts and Sciences

Kettler Hall G11A ~ 260-481-6272 ~ *www.ipfw.edu/anthropology*

Courses in anthropology provide an understanding of the nature of cultures and help you assess various explanations of human behavior; they also assist in the development of analytical and critical abilities. The curriculum is structured to include studies in the history and theory of anthropology, in four anthropological fields (ethnology, archaeology, bioanthropology, and linguistics), in at least two different world ethnographic areas, and in topical specializations. The program helps you prepare for graduate study, for teaching, and for careers in which the understanding of various cultures is an asset.

Although a minor is not required for the B.A. with a major in anthropology, an outside concentration is recommended. Fifteen credits in history, political science, psychology, or sociology support the concentration.

If you are pursuing a major other than anthropology, you may earn a minor in anthropology by completing the following credits with a grade of C or better in each course and earning at least 8 credits as resident credit at IPFW:

Program Requirements

Two of the following: Credits: 6

Additional anthropology credits Credits: 9
ANTH B200 - Bioanthropology Cr. 3.
ANTH E105 - Culture and Society Cr. 3.
ANTH L200 - Language and Culture Cr. 3.
ANTH P200 - Introduction to Prehistoric Archaeology Cr. 3.

Total Credits: 15

Applied Ethics Minor

Program: Minor
Department of Philosophy
College of Arts and Sciences

Liberal Arts Building 23 ~ 260-481-6366 ~ www.ipfw.edu/phil

A minor in applied ethics; including human rights issues, complements a major in such fields as anthropology, biology, business, communication, English, health sciences, history, psychology, or sociology. The minor also enhances your preparation for graduate study in any of these fields or in law, medicine, natural science, philosophy, religion and theology, or social work.

To earn a minor in applied ethics, you must complete the following credits with a grade of C or better in each course; at least 8 of the credits must be earned as resident credit at IPFW:

Program Requirements

Credits in an applied ethics course (e.g., PHIL 312, 326, 327, or 328) Credits: 3
Credits in another PHIL course at the 300 level or above Credits: 3
PHIL 11100 - Ethics Cr. 3.
PHIL 12000 - Critical Thinking Cr. 3.
    or
PHIL 15000 - Principles of Logic Cr. 3.
PHIL 48000 - Practicum in Applied Ethics Cr. 3.

Total Credits: 15

Art History Minor

Program: Minor
Department of Visual Arts/Fine Arts Program
College of Visual and Performing Arts

Visual Arts 117 ~ 260-481-6705 ~ www.ipfw.edu/vpa

A student may earn a minor in Art History by completing 18 credit hours of FINA Art History courses with a grade of C or better in each class. The 6 classes must include H111 and H112. Below is a listing of courses offered.

Resident Requirements Completion of as least 9 resident credits at the 200 level or above is required for the minor.

Program Requirements

Credits in art history selected from the following Credits: 18
FINA H111 - Ancient and Medieval Art Cr. 3.
FINA H112 - Renaissance Through Modern Art Cr. 3.
FINA H311 - Art of the Ancient World Cr. 3.
FINA H312 - Art of the Medieval World Cr. 3.
FINA H313 - Art of the Renaissance and Baroque Cr. 3.
FINA H314 - Art of the Modern World Cr. 3.
FINA H411 - 19th Century Art I Cr. 3.
FINA H412 - 19th Century Art II Cr. 3.
FINA H413 - 20th-Century Art: 1900-1924 Cr. 3.
FINA H414 - 20th Century Art: 1925-Present Cr. 3.
FINA H415 - Art of Pre-Columbian America Cr. 3.
FINA H495 - Readings and Research in Art History Cr. 1-4

Total Credits: 18

Biology Minor

Program: Minor
Department of Biology
College of Arts and Sciences

Science Building 330 ~ 260-481-6305 ~ www.ipfw.edu/bio

If you are pursuing a major other than biology, you may earn a minor in biology by completing each of the following courses with a grade of C or better and earning at least 10 credits as resident credit at IPFW:

Program Requirements

BIOL 11700 - Principles of Ecology and Evolution Cr. 4.
BIOL 11900 - Principles of Structure and Function Cr. 4.
BIOL 21700 - Intermediate Ecology Cr. 3.
BIOL 21800 - Genetics and Molecular Biology Cr. 4.
BIOL 21900 - Principles of Functional Biology Cr. 4.

Total Credits: 19

Business Studies Minor

Program: Minor
SBMS Undergraduate Student Affairs Center
Richard T. Doermer School of Business and Management Sciences

Neff Hall 366 ~ 260-481-6472 ~ www.ipfw.edu/bms

The minor in business studies provides a fundamental background in the principles of business and economics. The minor is available to any IPFW student majoring in a nonbusiness bachelor's degree program. Your eligibility for this program is governed by the policies of the division/department in which you are enrolled. Please see your academic advisor for additional information.

To earn this minor, you must be regularly admitted to an IPFW bachelor's degree program that permits this option. All courses that compose this option have specific prerequisites. You must meet the prerequisites for each course and earn a grade of C or better in each course marked with an *. Some of these courses may be applicable to other requirements of your degree program. See your academic advisor for details.

Program Requirements

BUS A201 - Principles of Financial Accounting Cr. 3.
  *
BUS A202 - Principles of Managerial Accounting Cr. 3.
  *
BUS K211 - Spreadsheets for Business Cr. 1.
  *
BUS K212 - Introduction to Database Management Cr. 1.
BUS K213 - Internet Literacy for Business Cr. 1.
BUS L200 - Elements of Business Law Cr. 3.
  *
BUS W204 - Social, Legal, and Ethical Implications of Business Decisions Cr. 3.
ECON E201 - Introduction to Microeconomics Cr. 3.
  *
ECON E202 - Introduction to Macroeconomics Cr. 3.
  *
ECON E270 - Introduction to Statistical Theory in Economics and Business I Cr. 3.
  *
MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.
    (or MA 165 or 223)

Two of the following: Credits 6

Upon completion of all above courses and after attaining junior class standing, you may select a maximum of two from the following:

BUS D300 - International Business Administration Cr. 3.
  *
BUS F301 - Financial Management Cr. 3.
  *
BUS M301 - Marketing Management in a Competitive Environment Cr. 3.
  *
BUS P301 - Managing Operations in a Competitive Environment Cr. 3.
  *
BUS Z302 - Management of Organizations and People Cr. 3

*

Note

As a major in another bachelor's degree program, you are not eligible to enroll in any additional business or economics courses. No more than 25 percent of a nonbusiness student's baccalaureate curriculum may be in subjects available in the Richard T. Doermer School of Business and Management Sciences.

Total Credits: 31

Chemistry Minor

Program: Minor
Department of Chemistry
School of Arts and Sciences

Science Building 496 ~ 260-481-6289 ~ www.ipfw.edu/chem

If you are pursuing a major other than chemistry, you may earn a minor in chemistry by completing the following courses with a grade of C or better and earning at least 13–15 credits as resident credits at IPFW:

Program Requirements

CHM 11500 - General Chemistry Cr. 4.
CHM 11600 - General Chemistry Cr. 4.
CHM 21800 - Introduction to Inorganic Chemistry Cr. 3.

Credits in one of the following Credits: 3–4

CHM 37100 - Physical Chemistry Cr. 3.
CHM 38300 - Physical Chemistry Cr. 4.

Credits in one of the following courses in analytical chemistry Credits: 4

CHM 22400 - Introductory Quantitative Analysis Cr. 4.
CHM 32100 - Analytical Chemistry I Cr. 4.

One of the following sequences Credits: 8–10

CHM 25400 - Organic Chemistry Laboratory Cr. 1.
CHM 25500 - Organic Chemistry Cr. 3.
CHM 25600 - Organic Chemistry Cr. 3.
CHM 25800 - Organic Chemistry Laboratory Cr. 1.
  or
CHM 26100 - Organic Chemistry Cr. 3.
CHM 26200 - Organic Chemistry Cr. 3.
CHM 26500 - Organic Chemistry Laboratory Cr. 2.

CHM 26600 - Organic Chemistry Laboratory Cr. 2.

Total Credits: 26-29

Communication Studies Minor

Program: Minor
Department of Communication
College of Arts and Sciences

Neff Hall 230 ~ 260-481-6825 ~ www.ipfw.edu/comm/

If you are pursuing a major other than interpersonal and organizational communication or media and public communication, you may earn this minor by completing the following requirements with a 2.0 or better in each course and earning at least 9 credits as resident credit at IPFW:

Program Requirements

Credits in communication courses approved for communication B.A. majors Credits: 6
(We strongly suggest students consult with the Department of Communication advisor to select these courses)
COM 21200 - Approaches to the Study of Interpersonal Communication Cr. 3.
COM 25000 - Mass Communication and Society Cr. 3.
COM 30000 - Introduction to Communication Research Methods Cr. 3.
COM 31800 - Principles of Persuasion Cr. 3.

Total Credits: 18

Computer Science Minor

Program: Minor
Department of Computer Science
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 125 ~ 260-481-6803 ~ www.cs.ipfw.edu

If you are pursuing a major other than computer science, you may earn a minor in computer science by completing the following courses. Only computer science courses in which you have earned a grade of C or better can be applied to the degree or used to satisfy prerequisites.

Required Courses (14 Credits)

CS 16000 - Introduction to Computer Science I Cr. 4.
CS 16100 - Introduction to Computer Science II Cr. 4.
CS 26000 - Data Structures Cr. 3.
MA 17500 - Introductory Discrete Mathematics Cr. 3.

CS 200+ Electives (6 Credits)

Any CS 200 level, CS 300 level or CS 400 level courses except CS 306.

Total Credits: 20

Creative Writing Minor

Program: Minor
Department of English and Linguistics
College of Arts and Sciences

Liberal Arts Building 145 ~ 260-481-6841 ~ www.ipfw.edu/engl

This program is available to all IPFW students except those pursuing the communication media, teacher-certification, or writing concentration with a major in English.

You may earn the minor by completing the following 15 credits, including at least 8 credits earned as resident credit at IPFW, with a grade of C or better in each course.

Program Requirements

One additional writing course, 300 level or above Credits: 3
One additional course in classics, comparative literature, English, (except ENG W130, W131, W135, W233), film, folklore, or linguistics; or COM 436 or THTR 376 Credits: 3
ENG W203 - Creative Writing Cr. 3.

One of the following: Credits: 3

ENG W301 - Writing Fiction Cr. 3.
ENG W303 - Writing Poetry Cr. 3.

One of the following Credits: 3

ENG W401 - Advanced Fiction Writing Cr. 3.
ENG W403 - Advanced Poetry Writing Cr. 3.

Total Credits: 15

Criminal Justice Minor

Program: Minor
Division of Public and Environmental Affairs

Neff Hall 260 ~ 260-481-6351 ~ www.ipfw.edu/spea/

The minor in criminal justice offers you the opportunity to become more knowledgeable in the field of criminal justice and its policy implications. It is available to students who are enrolled in baccalaureate programs other than the Bachelor of Science in Public Affairs degree program with a major in Criminal Justice. The minor can enhance the career opportunities for liberal arts and other majors.

Program Requirements

Each minor requires 15 credit hours of specified courses with a 2.00 grade-point average, and none of the courses may be taken by correspondence through the Division of Continuing Studies. SPEA majors may only double-count 6 of the required 15 credit hours in other SPEA major or minor requirements. Students may earn more than one minor from SPEA, but each minor must have at least 9 credit hours that are not satisfying other major or minor requirements.

SPEA J101 - The American Criminal Justice System Cr. 3.
     C– or better required.

One of the following: Credits: 3

SPEA J201 - Theoretical Foundations of Criminal Justice Policies Cr. 3.
SPEA J301 - Substantive Criminal Law Cr. 3.

An additional 9 credits of Criminal Justice electives (SPEA Jxxx) at the 300-level or above.

Total Credits: 15

Dance Minor

Program: Minor
Department of Theatre
College of Visual and Performing Arts

Williams Theatre 128 ~ 260-481-6551 ~ www.ipfw.edu/vpa/thtr

You may earn a theatre dance minor by completing the following courses and earning a grade of C or better in each course.

Program Requirements

DANC 10100 - Modern Dance I Cr. 2.
DANC 10200 - Ballet I Cr. 2.
DANC 10300 - Jazz Dance I Cr. 2.
DANC 12100 - Tap Dance I Cr. 2.
DANC 13400 - The Study of Movement in Human Society Cr. 3.
DANC 13600 - Teaching Dance: Theories and Methods Cr. 3.
DANC 20100 - Modern Dance II Cr. 2.
DANC 20200 - Ballet II Cr. 2.
DANC 20300 - Jazz Dance II Cr. 2.
DANC 22100 - Tap Dance II Cr. 2.

DANC 24000 - Fundamentals of Dance Composition Cr. 3.

One of following Credits: 3

DANC 25100 - Dance History Cr. 3.
THTR 35500 - American Musical Theatre Cr. 3.

Total Credits: 24

Economics Minor

Program: Minor
College of Arts and Sciences

Neff Hall 366B ~ 260-481-6483 ~ www.ipfw.edu/econ

Economics is the study of the rational allocation of scarce resources. The major seeks to develop those critical skills that help you understand and solve problems in a wide variety of circumstances. These analytical abilities are valuable in the business world and many professional disciplines such as law and social work.

This program is offered in close cooperation with the Department of Economics in the Richard T. Doermer School of Business and Management Sciences, which offers all economics courses required for the major.

If you are pursuing a major other than economics, you may earn a minor in economics by completing the following credits with a grade of C or better in each course and earning at least 8 credits as resident credit at IPFW:

Program Requirements

Credits in two additional ECON courses at the 300–400 level: 6
ECON E201 - Introduction to Microeconomics Cr. 3.
ECON E202 - Introduction to Macroeconomics Cr. 3.

One of following Credits: 3

ECON E321 - Intermediate Microeconomic Theory Cr. 3.
ECON E322 - Intermediate Macroeconomic Theory Cr. 3.

Note

Programs can be designed to provide concentrations in several areas. A theory and quantitative concentration of 18 credits, including at least 9 resident credits, can be provided along with suitable study in mathematics to prepare students for graduate programs in economics and related disciplines.

Total Credits: 15

Electronics Minor

Program: Minor
Department of Computer and Electrical Engineering Technology and Information Systems
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 205 ~ 260-481-6338 ~ www.ceit.ipfw.edu

The minor in electronics provides a fundamental technical background in analog and digital electronics to enable you to understand, analyze, and troubleshoot basic circuits. It also enables you to specialize and gain an in-depth knowledge of a particular area of electronics.

The ECET department also offers the Bachelor and Associate of Science with a major in electrical engineering technology, a Bachelor of Science with a major in computer engineering technology (CPET) and an Associate and Bachelor of Science with a major in information systems. In addition to the degrees, the department offers a minor in information systems and certificate programs in computer-controlled systems, electronic communications, power electronics systems, and computer networking.

To earn a minor in electronics, you must complete the following courses and, unless you have already completed them, the 6 credits of mathematics prerequisites:

Fundamental Courses (16 credits)

ECET 10200 - Electrical Circuits I Cr. 4.
ECET 11100 - Digital Circuits Cr. 4.
ECET 15200 - Electrical Circuits II Cr. 4.
ECET 20400 - Analog Electronics II Cr. 4.

Advanced Course (One of the following: 4 credits)

ECET 30200 - Introduction to Control Systems Cr. 4.
ECET 30300 - Communications I Cr. 4.
ECET 35500 - Data Communications and Networking Cr. 4.
ECET 36100 - Introduction to PLC and Pneumatic Systems Cr. 4.

Total Credits: 20

English Minor

Program: Minor
Department of English and Linguistics

Liberal Arts Building 145 ~ 260-481-6841 ~ www.ipfw.edu/engl

This program is available to all IPFW students who are not pursuing a major in English. You may earn a minor in English by completing the following 15 credits, including at least 8 credits earned as resident credit at IPFW, with a grade of C or better in each course:

Program Requirements

Credits in American literature Credits: 3
Credits in British literature before 1700 Credits: 3
Credits in British literature after 1700 Credits: 3
Additional credits in ENG and LING courses, W100–W299 excepted Credits: 6

Total Credits: 15

Film and Media Studies Minor

Program: Minor
College of Arts and Sciences

Liberal Arts Building 153 ~ 260-481-6160

The minor in film and media studies provides a coherent introduction to the basics of film/media literacy. The program is designed to develop a critical understanding of the historical, theoretical, aesthetic, cultural and institutional contexts of film, television, and other electronic and digital mass media.

Film/media aesthetics Credits: 3

One of following:

COM 24800 - Introduction to Media Criticism and Analysis Cr. 3.
FILM K101 - Introduction to Film Cr. 3.

Film/media history Credits: 3

One of following:

COM 25000 - Mass Communication and Society Cr. 3.
FILM K201 - Survey of Film History Cr. 3.

Upper-level requirements Credits: 6

Two of the following:

COM 33800 - Documentary or Experimental Film and Video Cr. 3.
FILM K302 - Genre Study in Film Cr. 3.
FILM K390 - The Film and Society Cr. 3.

Free elective Credits: 3

One of following:

COM 42200 - Women, Men, and Media Cr. 3.

COM 43600 - Script Writing Cr. 3.
COM 49100 - Special Topics in Communication Cr. 1-3.
   (with appropriate topic)
FREN F460 - French Fiction in Film Cr. 3
POLS Y200 - Contemporary Political Topics Cr. 1-6,
   (with appropriate topic)

Note

Additional courses may be approved and will be announced in the program brochure and in the Schedule of Classes each semester. At least 8 credits must be completed as resident credit at IPFW.

Total Credits: 15

Fine Arts Minor

Program: Minor
Department of Visual Arts/Fine Arts Program
College of Visual and Performing Arts

Visual Arts Building 117 ~ 260-481-6705 ~ www.ipfw.edu/vpa/finearts

A Fine Arts Minor is designed for IPFW students outside of Department of Fine Arts programs. IPFW students can earn a minor in art by completing 15 credit hours within the Department of Fine Arts while maintaining a 2.0 GPA within the classes.

Resident Requirements Completion of as least six resident credits at the 200 level or above is required for the minor.

Required Courses Credits: 6

FINA P121 - Drawing Fundamentals I-II Cr. 3.
FINA P151 - Design Fundamentals I-II Cr. 3.

Additional Fine Arts Credits: 9

Select three additional classes within the fine arts program.

At least two classes must be at the 200 level or above.
Two FINA art history classes can be used as part of the additional classes

Total Credits: 15

Folklore Minor

Program: Minor
Department of English and Linguistics
College of Arts and Sciences

The minor in folklore familiarizes you with the international body of folklore as well as the theories, techniques, and history of folkloristics. The folklore minor is particularly appropriate for degree programs in anthropology, education, English, history, sociology, and other humanities and social sciences.

This program is available to all IPFW students except those pursuing the teacher-certification concentration with a major in English.

To earn a minor in folklore, you must complete the following 15 credits, including at least 8 credits earned as resident credit at IPFW, with a grade of C or better in each course:

Program Requirements

Credits in additional courses, including at least two courses above the 200 level in folklore or in folklore-related courses in anthropology, classics, or other disciplines approved by the department Credits: 9

One of following Credits: 3

FOLK F101 - Introduction to Folklore Cr. 3.
FOLK F220 - Introduction to American Folklore Cr. 3.

One of following Credits: 3

ANTH E462 - Anthropological Folklore Cr. 3.
FOLK F251 - Folklore Methods and Theories Cr. 3.

Total Credits: 15

French Minor

Program: Minor
Department of International Language and Culture Studies
College of Arts and Sciences

Liberal Arts Building 267 ~ 260-481-6836 ~ www.ipfw.edu/ilcs

If you are pursuing a major other than French, you may earn a minor in French by completing the following 14 credits, with a grade of C or better in each course.

Study Abroad Both majors and nonmajors are encouraged to study abroad. For those who wish to study French, Indiana University administers and cosponsors an academic-year program in Aix-en-Provence; semester programs in Paris, Rennes, and Rouen; and summer programs in Paris and Quebec.

Program Requirements

Credits in 300-level French language courses Credits: 6
Credits in 300-level French literature courses Credits: 6

FREN F213 - Second-Year French Composition Cr. 3.
    (normally taken concurrently with F203–F204)

Total Credits: 14

French Teaching Minor

Program: Teaching Minor
Department of International Language and Culture Studies
College of Arts and Sciences

Liberal Arts Building 267 ~ 260-481-6836 ~ www.ipfw.edu/ilcs

If you are already licensed or qualified to be licensed in another area, you may earn a French teaching minor by completing the following 34 credits with a grade of C or better in each course.

Program Requirements

Credits in 300-level French language courses Credits: 3
Credits in 300-level French literature courses Credits: 3
Credits in 400-level French and francophone civilization courses (F463 or F464) Credits: 3
FREN F111 - Elementary French I Cr. 4.
FREN F112 - Elementary French II Cr. 4.
FREN F203 - Second-Year French I Cr. 3.
FREN F204 - Second-Year French II Cr. 3.
FREN F213 - Second-Year French Composition Cr. 3.
    (normally taken concurrently with F203–F204)
FREN F317 - French Language Skills I Cr. 3.
FREN F318 - French Language Skills II Cr. 3.
FREN F325 - Oral French for Teachers Cr. 3-8.
    3 Credits

Total Credits: 34

Geology Minor

Program: Minor
Department of Geosciences
College of Arts and Sciences

Science Building 230 ~ 260-481-6249 ~ www.geosci.ipfw.edu

If you are pursuing a major other than geology, you may earn a minor in geology by completing the following courses with a grade of C or better, with at least 11 resident credits taken at IPFW.

Program Requirements

Two courses from GEOL/GEOG, 200 level or higher Credits: 6

GEOL G104 - Earth Science: Evolution of the Earth Cr. 3.
GEOL G211 - Introduction to Paleobiology Cr. 3.

One of following Credits: 3-4

GEOL G100/L100 General Geology with Lab Cr. 4.
GEOL G103 - Earth Science: Materials and Processes Cr. 3.

One of following Credits: 3

GEOG G237 - Cartography and Geographic Information Cr. 3.
GEOL G323 - Structural Geology Cr. 3.

One of following Credits: 3

GEOL G300 - Environmental and Urban Geology Cr. 3.
GEOL G334 - Principles of Sedimentology and Stratigraphy Cr. 3.

Total Credits: 21-22

German Minor

Program: Minor
Department of International Language and Culture Studies
College of Arts and Sciences

Liberal Arts Building 267 ~ 260-481-6836 ~ www.ipfw.edu/ilcs/

If you are pursuing a major other than German, you may earn a German minor by completing the following 15 credits, with a grade of C or better in each course:

Study Abroad both majors and nonmajors are encouraged to study abroad. For those who wish to study German, Indiana University administers and cosponsors an academic-year program in Freiburg, a semester program in Freiburg, and a summer program in Graz (Austria).

Program Requirements

Additional German language skills credits at the 300 level Credits: 3
Additional German credits at the 300–400 level Credits: 9

One of following Credits: 3

GER G362 - Introduction to Contemporary Germany Cr. 3.
GER G363 - Deutsche Kulturgeschichte Cr. 3.

Total Credits: 15

German Teaching Minor

Program: Teaching Minor
Department of International Language and Culture Studies
College of Arts and Sciences

Liberal Arts Building 267 ~ 260-481-6836 ~ www.ipfw.edu/ilcs/

If you are already licensed or qualified to be licensed in another area, you may earn a German teaching minor by completing the following 32 credits with a grade of C or better in each course.

Program Requirements

Additional German language skills credits at the 300 level Credits: 3
Additional German credits at the 300-400 level Credits: 9
GER G111 - Elementary German I Cr. 4.
GER G112 - Elementary German II Cr. 4.
GER G203 - Second-Year German I Cr. 3.
GER G204 - Second-Year German II Cr. 3.
GER G325 - German for Teachers Cr. 3.

One of following Credits: 3

GER G362 - Introduction to Contemporary Germany Cr. 3.
GER G363 - Deutsche Kulturgeschichte Cr. 3.

Total Credits: 32

History Minor

Program: Minor
Department of History
College of Arts and Sciences

Liberal Arts Building 209 ~ 260-481-6686 ~ www.ipfw.edu/hist

If you are pursuing a major other than history, you may earn a minor in history by completing the following credits with a grade of C- or better in each course and with an overall GPA of 2.0 or higher, including at least 9 credits as resident credit at IPFW:

Program Requirements

Credits in 100-level courses (H105, H106, H113, H114, or equivalent honors courses) Credits: 9

Credits above the 100 level, including courses in at least two of the following three areas: United States, Western Europe, and Other World areas Credits: 9

Total Credits: 18

Note

Included in the above credits must be at least one course dealing primarily with the period before 1800 (HIST A301, A302, A310, B351, B352, C386, C388, C390, C393, E331, F341, H113, H201, H222, and occasional special offerings). HIST H232 may not be used to fulfill the Western European or Other World area requirements, but may be used for additional credits toward the major or minor.

Human Services Minor

Program: Minor
Department of Human Services
College of Health and Human Services

Neff Hall 130 ~ 260-481-6424 ~ www.ipfw.edu/hs/

The minor in human services is available to students enrolled in baccalaureate programs other than the Bachelor of Science in human services. The minor can enhance the career opportunities for liberal arts, general studies, and other majors. The minor requires 15 credit hours of specified courses, which must be completed with a grade of C or better. Students should contact the Department of Human Services at 260-481-6424 for more information and to be assigned to an academic advisor.

Program Requirements

HSRV 10000 - Introduction to Human Services Cr. 3.
HSRV 31500 - Introduction to Theories and Therapies Cr. 3.
HSRV 32000 - Case Methods Cr. 3.

One of the following: Credits: 3

HSRV 32500 - Current Trends in Psychosocial Rehabilitation Cr. 3.
HSRV 35000 - Drugs and Society Cr. 3.
HSRV 39900 - Special Topics Cr. 1-3.
HSRV 42000 - Substance Abuse Prevention Cr. 3.

One of the following: Credits: 3

HSRV 10300 - Helping Relationship Techniques Cr. 3.
HSRV 10500 - Basic Interviewing Skills Cr. 3.
HSRV 21100 - The Dynamics of Group Behavior Cr. 3.

Informatics Minor

Department of Computer Science
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 125 ~ 260-481-6803 ~ www.cs.ipfw.edu

The minor in Informatics complements a major in such fields as Nursing, Biology, Business, management, government/Public Administration and Education. To earn a minor in Informatics, you should have completed ETCS 106 (or equivalent) with a grade of C or better and the following must be completed:

Program Requirements

Informatics Core Courses

    IM 10500 - Introduction to Informatics Cr. 1.
    IM 21000 - Problem Solving and Programming for Informatics Cr. 4.
    IM 22000 - Database Applications for Informatics Cr. 3.
    IM 23000 - Informatics Infrastructure Cr. 3.
    IM 33000 - Information Retrieval and Presentation Cr. 3.

Informatics Elective selected from the following (one course, Cr. 3):

    IM 31000 - Problem Solving and Programming for Informatics Cr. 1.
    IM 37000 - Network Design and Management for Informatics Cr. 3.
    IM 38000 - HCI Design for Informatics Cr. 3.
        (Other approved Informatics courses from a related discipline)

Informatics Capstone Course, Cr. 3

    IM 45000 - Informatics Design Project Cr. 3.
        (Other approved Informatics capstone course from a related discipline)

Information Systems Minor

Program: Minor
Department of Computer and Electrical Engineering Technology & Information Systems and Technology
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 205 ~ 260-481-6338 ~ www.ceit.ipfw.edu

The Minor in Information systems provides a fundamental background for students interested in developing software for business/organization systems and applications.

To earn a minor in information systems, you must complete the following courses:

Major Requirements Credits: 18

Contact the Department of Computer and Electrical Engineering Technology & Information Systems and Technology for more information.

    IST 14000 - Introduction to Visual Basic Applications Cr. 3.
    IST 16000 - Foundation and Role of Information Systems Cr. 3.
    IST 26000 - Enterprise Architecture Cr. 3.
    IST 27000 - Data and Information Management Cr. 3.
    IST 34000 - Business Process Management Cr. 3.
    IST 37000 - Systems Analysis and Design Cr. 3.

Total Credits: 18

Journalism Minor

Program: Minor
College of Arts and Sciences

Neff Hall 343 ~ 260-481-6685 ~ www.ipfw.edu/jour/

The IPFW Journalism Program offers two minors. A journalism minor provides underpinning for those interested in various media; the public relations minor described later in this section is more particularly defined and will appeal to those wishing to concentrate in corporate communications or advertising/public relations.

These minors are especially appropriate for media and public communication or English communication media majors. Those with a desire to write or report in some content area should consider a major in the area itself. Reporters need a content area such as political science or history; basic science students will discover that science writing is an especially valuable and challenging career goal.

Program Requirements

To earn the journalism minor, you must complete each course with a grade of C or better and must complete at least 8 credits as resident credit at IPFW.

One of following Credits: 3

    COM 25000 - Mass Communication and Society Cr. 3.
    JOUR C200 - Mass Communications Cr. 3.
    JOUR J110 - Foundations of Journalism and Mass Communication Cr. 3.

Two of the following Credits: 6

    JOUR J200 - Reporting, Writing and Editing I Cr. 3.
    JOUR J20I - Reporting, Writing, and Editing II Cr. 3.
    JOUR J315 - Feature Writing Cr. 3.

Two of the following Credits: 6

    COM 33400 - Journalism for the Electronic Mass Media Cr. 3.
    JOUR J210 - Visual Communication Cr. 3.

JOUR J310 - Editorial Practices Cr. 3.
JOUR J390 - Corporate Publications Cr. 1-3.

One of following Credits: 3

COM 43200 - Practicum in Television Cr. 2.
COM 49000 - Internship in Communication Cr. 1-3.
ENG W398 - Internship in Writing Cr. 1-3.
JOUR J492 - Media Internship Cr. 1-3.

Total Credits: 18

Labor Studies Minor

Division of Labor Studies
Program Offered: Minor

Kettler Hall G28 ~ 260-481-6831 ~ www.labor.iu.edu

If you are pursuing a major other than labor studies, you may earn a minor in labor studies by completing 15 credits, including 6 credits from the Labor Studies Core and 9 additional credits in labor studies. The additional 9 credits may come from other core courses, more-advanced courses, topics courses, internships, and directed labor studies.

Linguistics Minor

Program: Minor
Department of English and Linguistics
College of Arts and Sciences

Liberal Arts Building 145 ~ 260-481-6841 ~ www.ipfw.edu/engl

Linguistics is the study of the characteristics of language. Accordingly, linguistics courses are valuable preparation for the study of such subjects as anthropology, communication, education, English, international languages, psychology, sociology, and speech and audiology.

This program is available to all IPFW students except those pursuing the language, teacher-certification, or communication media concentration with a major in English.

To earn a minor in linguistics, you must complete the following 15 credits, including at least 8 credits earned as resident credit at IPFW, with a grade of C or better in each course:

Program Requirements

Any LING course numbered 300 or above except LING L303 Credits: 3

One of the following Credits: 3

ANTH L200 - Language and Culture Cr. 3.
ANTH L400 - Seminar in the Ethnography of Communication Cr. 3.
LING L360 - Language in Society Cr. 3.

One of the following Credits: 3

LING L103 - Introduction to the Study of Language Cr. 3.
LING L303 - Introduction to Linguistic Analysis Cr. 3.

One of the following Credits: 3

Or, one course in the structure or linguistics of an international language.

CSD 18100 - First Course in American Sign Language Cr. 3.
ENG G205 - Introduction to the English Language Cr. 3.
ENG G206 - Introduction to the Study of Grammar Cr. 3.
LING L490 - Linguistic Structures Cr. 3.

One of the following Credits: 3

Or one course above the 200 level in linguistics or a related discipline approved by the department.

CSD 30600 - Introduction to Phonetics Cr. 3.
CSD 30900 - Language Development Cr. 3.
PHIL 45000 - Symbolic Logic Cr. 3.
PSY 42600 - Language Development Cr. 3.
PSY 52600 - Psycholinguistics Cr. 3.

Total Credits: 15

Math and Physics Minor - Computer Engineering

Program: B.S.Cmp.E.
Department of Engineering
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 327 ~ 260-481-6362 ~ www.engr.ipfw.edu

Computer engineering students have enough math courses to qualify for a minor in mathematics. No additional math courses are needed. To be officially awarded a minor in math, a form must be filled and approved by the math department prior to graduation.

Computer engineering students that take PHYS 322 and PHYS 342, which are accepted as technical electives in the computer engineering program, will earn a minor in physics. PHYS 342 can also be taken as an Area VI General Education course. To be officially awarded a minor in physics, a form must be filled and approved by the physics department prior to graduation.

Math and Physics Minor - Electrical Engineering

Program: B.S.E.E.
Department of Engineering
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 327 ~ 260-481-6362 ~ www.engr.ipfw.edu

Electrical engineering students have enough math courses to qualify for a minor in mathematics. No additional math courses are needed. To be officially awarded a minor in math, a form must be filled and approved by the math department prior to graduation.

Electrical engineering students that take PHYS 322 and PHYS 342, which are accepted as technical electives in the electrical engineering program, will earn a minor in physics. PHYS 342 can also be taken as an Area VI General Education course. To be officially awarded a minor in physics, a form must be filled and approved by the physics department prior to graduation.

Math and Physics Minor - Mechanical Engineering

Program: B.S.M.E.
Department of Engineering
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 327 ~ 260-481-6362 ~ www.engr.ipfw.edu

Mechanical engineering students that take ME 373 Numerical Methods in Engineering, have enough math courses to qualify for a minor in mathematics. No additional math courses are needed. To be officially awarded a minor in math, a form must be filled and approved by the math department prior to graduation.

Mechanical engineering students that take PHYS 322 and PHYS 342, which are accepted as technical electives in the mechanical engineering program, will earn a minor in physics. PHYS 342 can also be taken as an Area VI General Education course. To be officially awarded a minor in physics, a form must be filled and approved by the physics department prior to graduation.

Math Minor - Civil Engineering

Program: B.S.C.E.
Department of Engineering
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 327 ~ 260-481-6362 ~ www.engr.ipfw.edu

Civil engineering students have enough math courses to qualify for a minor in mathematics. No additional math courses are needed. To be officially awarded a minor in math, a form must be filled and approved by the math department prior to graduation.

Mathematics Minor

Program Offered: Minor
Department of Mathematical Sciences
College of Arts and Sciences

Kettler Hall 200 ~ 260-481-6821 ~ www.ipfw.edu/math

You may earn a minor in mathematics by completing at least six courses in mathematics and statistics. Your selection of courses should be appropriate for your major, and your program for a minor must be approved by the department's program review committee. Two calculus courses must be included. College algebra or trigonometry courses are excluded; one computer science course may be substituted for a mathematics or statistics course. You must have a grade of C or better in all courses included in your minor, and at least half of the credits must be earned as resident credit at IPFW.

Sample Programs for a Minor in Mathematics

Business and Management Majors

Computer Programming:

CS 11400 - Introduction to Visual Basic Cr. 3.
    or
CS 16000 - Introduction to Computer Science I Cr. 4.

Calculus:

MA 16500 - Analytic Geometry and Calculus I Cr. 4.
    and
MA 16600 - Analytic Geometry and Calculus II Cr. 4.
    or
MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.
    and
MA 23000 - Calculus for the Managerial, Social, and Biological Sciences II Cr. 3.

Finite or Discrete Math:

MA 17500 - Introductory Discrete Mathematics Cr. 3.
    or
MA 21300 - Finite Mathematics I Cr. 3.
    or
MA 27500 - Intermediate Discrete Math Cr. 3.

Modeling:

MA 31400 - Introduction to Mathematical Modeling Cr. 3.

Statistics:

ECON E270 - Introduction to Statistical Theory in Economics and Business I Cr. 3.

or
STAT 51100 - Statistical Methods Cr. 3.

Computer Science Majors

Numerical Analysis:

CS 38400 - Numerical Analysis Cr. 3.

Calculus:

MA 16500 - Analytic Geometry and Calculus I Cr. 4.
and
MA 16600 - Analytic Geometry and Calculus II Cr. 4.

Discrete Mathematics:

MA 17500 - Introductory Discrete Mathematics Cr. 3.
or
MA 27500 - Intermediate Discrete Math Cr. 3.

Linear Algebra:

MA 35100 - Elementary Linear Algebra Cr. 3.

Statistics:

STAT 51100 - Statistical Methods Cr. 3.
or
STAT 51600 - Basic Probability and Applications Cr. 3.

Liberal Arts Majors

Computer Programming:

CS 11400 - Introduction to Visual Basic Cr. 3.
or
CS 16000 - Introduction to Computer Science I Cr. 4.

Calculus:

MA 16500 - Analytic Geometry and Calculus I Cr. 4.
and
MA 16600 - Analytic Geometry and Calculus II Cr. 4.
or
MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.
and
MA 23000 - Calculus for the Managerial, Social, and Biological Sciences II Cr. 3.

Finite Mathematics:

MA 21300 - Finite Mathematics I Cr. 3.

Modeling:

MA 31400 - Introduction to Mathematical Modeling Cr. 3.

Statistics:

STAT 12500 - Communicating with Statistics Cr. 3.

Life Sciences Majors

Computer Programming:

CS 11400 - Introduction to Visual Basic Cr. 3.
    or
CS 16000 - Introduction to Computer Science I Cr. 4.

Calculus:

MA 16500 - Analytic Geometry and Calculus I Cr. 4.
    and
MA 16600 - Analytic Geometry and Calculus II Cr. 4.
    or
MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.
    and
MA 23000 - Calculus for the Managerial, Social, and Biological Sciences II Cr. 3.

Finite Mathematics:

MA 21300 - Finite Mathematics I Cr. 3.

Modeling:

MA 31400 - Introduction to Mathematical Modeling Cr. 3.

Statistics:

STAT 24000 - Statistical Methods for Biology Cr. 3.
STAT 34000 - Elementary Statistical Methods II Cr. 3.

Physical Sciences and Engineering Majors

Calculus:

MA 16500 - Analytic Geometry and Calculus I Cr. 4.
    and
MA 16600 - Analytic Geometry and Calculus II Cr. 4.
    and
MA 26100 - Multivariate Calculus Cr. 4.

Differential Equations:

MA 36300 - Differential Equations Cr. 3.

Advanced Calculus:

MA 51000 - Vector Calculus Cr. 3.

Complex Analysis or Linear Algebra:

MA 35100 - Elementary Linear Algebra Cr. 3.
    or
MA 51100 - Linear Algebra with Applications Cr. 3.
    or
MA 52500 - Introduction to Complex Analysis Cr. 3.

Technology Majors

Computer Programming:

CS 11400 - Introduction to Visual Basic Cr. 3.
    or
CS 16000 - Introduction to Computer Science I Cr. 4.

Calculus:

MA 16500 - Analytic Geometry and Calculus I Cr. 4.
    and
MA 16600 - Analytic Geometry and Calculus II Cr. 4.
    or
MA 22700 - Calculus for Technology I Cr. 4.
    and
MA 22800 - Calculus for Technology II Cr. 3.

Discrete or Finite Math:

MA 17500 - Introductory Discrete Mathematics Cr. 3.
    or
MA 21300 - Finite Mathematics I Cr. 3.
    or
MA 27500 - Intermediate Discrete Math Cr. 3.

Mathematics Elective:

MA 32100 - Applied Differential Equations Cr. 3.
    or
MA 35100 - Elementary Linear Algebra Cr. 3.

Statistics:

STAT 30100 - Elementary Statistical Methods I Cr. 3.
    or
STAT 51100 - Statistical Methods Cr. 3.

Media Production Minor

Program: Minor
Department of Communication
College of Arts and Sciences

Neff Hall 230 ~ 260-481-6825 ~ www.ipfw.edu/comm/

This program is available to all IPFW students, including students with communication majors. To earn a minor in media production, you must complete at least 18 credits with a 2.0 or better in each course. You must also complete any prerequisites for the courses that are chosen and complete at least 9 credits as resident credit at IPFW.

Program Requirements

COM 24800 - Introduction to Media Criticism and Analysis Cr. 3.

Credits from among the following: Credits: 15

COM 33100 - Audio Production Cr. 3.
COM 33200 - Television Studio Production Cr. 3.
COM 33300 - Film Production Cr. 3.
COM 33400 - Journalism for the Electronic Mass Media Cr. 3.
COM 33700 - Advanced Digital Video Production Cr. 3.
COM 33800 - Documentary or Experimental Film and Video Cr. 3.
COM 43100 - Practicum in Radio Cr. 2.
    (2 credits, may be repeated once)
COM 43200 - Practicum in Television Cr. 2.
    (2 credits, may be repeated once)
COM 43600 - Script Writing Cr. 3.
COM 49000 - Internship in Communication Cr. 1-3.
COM 53700 - Educational/Instructional Television Cr. 3.
COM 57600 - Health Communication Cr. 3.
FILM K101 - Introduction to Film Cr. 3.
JOUR J200 - Reporting, Writing and Editing I Cr. 3.
JOUR J210 - Visual Communication Cr. 3.
PHYS 10500 - Sound and Music Cr. 3.
PHYS 12500 - Light and Color Cr. 3.
THTR 15800 - Stagecraft Cr. 3.
VCD N274 - Digital Imaging Cr. 3.
VCD P151 - Design Fundamentals I Cr. 3.

VCD P152 - Design Fundamentals II Cr. 3.

Total Credits: 18

Music Minor

Program: Minor
Department of Music
College of Visual and Performing Arts

Rhinehart Music Center (RC) 144 ~ 260-481-6714 ~ www.ipfw.edu/vpa/music

A minor in music is designed for students who wish to enhance an interest in music while majoring in another area. To earn this minor, you must complete the courses listed below and earn a grade of C or better in each. Six credits must be at the 200 level or higher.

Program Requirements

24 credit hours selected from the following:

Music Theory Credits: 8

MUS T113 - Music Theory I Cr. 3.
MUS T114 - Music Theory II Cr. 3.
MUS T115 - Sightsinging and Aural Perception I Cr. 1.
MUS T116 - Sightsinging and Aural Perception II Cr. 1.

Music History and Literature Credits: 4

MUS M201 - Music Literature I Cr. 2.
MUS M202 - Music Literature II Cr. 2.

Applied Study and/or Ensemble Credits: 6-12

Placement in ensembles and/or applied studios by audition only.

Applied Study (with jury examination)　Credits: 4-8
Ensembles　Credits: 2-4

Electives Credits: 0-6

Students may work with an advisor in the Department of Music to select electives to fulfill the remaining credit hours.

Concert Attendance Credits: 0

MUS X095 - Performance Class Cr. 0.

(2-4 Semesters)

Organizational Leadership and Supervision Minor

Program: Minor
Division of Organizational Leadership and Supervision

Neff Hall 288 ~ 260-481-6420 ~ www.ipfw.edu/ols

If you are pursuing a major other than organizational leadership and supervision, you may earn a minor in organizational leadership and supervision by completing the following courses with a grade of C or better in each course and earning at least 9 credits as resident credit at IPFW:

Program Requirements

OLS 25200 - Human Relations in Organizations Cr. 3.
OLS 26800 - Elements of Law Cr. 3.
OLS 27400 - Applied Leadership Cr. 3.
OLS 37500 - Training Methods Cr. 3.
OLS 37600 - Human Resources Issues Cr. 3.

Additional Credits in OLS: 3

Total Credits: 18

See the OLS advisor for a list of approved OLS electives.

Philosophy Minor

Program: Minor
Department of Philosophy
College of Arts and Sciences

Liberal Arts Building 23 ~ 260-481-6366 ~ www.ipfw.edu/phil

If you are pursuing a major other than philosophy, you may earn a minor in philosophy by completing the following credits with a grade of C or better in each course and earning at least 8 credits as resident credit at IPFW. Substitutions for these courses may be made with the approval of the department.

Program Requirements

PHIL 30300 - History of Modern Philosophy Cr. 3.

One of the following: Credits: 3

PHIL 11000 - Introduction to Philosophy Cr. 3.

PHIL 11100 - Ethics Cr. 3.

One of the following: Credits: 3

PHIL 12000 - Critical Thinking Cr. 3.
PHIL 15000 - Principles of Logic Cr. 3.

One of the following: Credits: 3

PHIL 30100 - History of Ancient Philosophy Cr. 3.
PHIL 30200 - History of Medieval Philosophy Cr. 3.
PHIL 30400 - 19th Century Philosophy Cr. 3.

Credits in a philosophy elective at the 400 level or above Credits: 3

(PHIL 493 and PHIL 590 count toward the minor only with the approval of the department.)

Total Credits: 15

Physics Minor

Program: Minor
Department of Physics
College of Arts and Sciences

Kettler Hall 126B ~ 260-481-6306 ~ www.ipfw.edu/physics/

If you are pursuing a major other than physics, you may earn a minor in physics by completing the following credits with a grade of C or better in each course and earning at least 9 credits as resident credit at IPFW:

Program Requirements

PHYS 15200 - Mechanics Cr. 5.
PHYS 25100 - Heat, Electricity, and Optics Cr. 5.

Credits in two of the following: Credits: 6-8

PHYS 31000 - Intermediate Mechanics Cr. 4.
PHYS 32200 - Optics Cr. 3.
PHYS 33000 - Intermediate Electricity and Magnetism Cr. 3.
PHYS 33100 - Electricity and Magnetism II Cr. 3.
PHYS 34200 - Modern Physics Cr. 3.
PHYS 36100 - Electronics for Scientists Cr. 4.

Total Credits: 16-18

Political Science Minor

Program: Minor
Department of Political Science
College of Arts and Sciences

Liberal Arts Building 209 ~ 260-481-6686 ~ www.ipfw.edu/pols

Program Requirements

If you are pursuing a major other than political science, you may earn a minor in political science by completing a minimum of 18 credits, including at least 9 resident credits, in the discipline with a grade of C- or better in each course and an overall GPA of 2.00 or higher. A maximum of 6 credits may be earned in 100-level courses, and a minimum of 6 credits in courses at or above the 300 level (not including Y398 or Y482). Neither Y398 (Internship in Urban Institutions) nor Y482 (Practicum) may count for more than 6 of the 18 credits; these two courses together may not count for more than 9 of the 18 credits.

Professional Writing Minor

Program: Minor
Department of English and Linguistics
College of Arts and Sciences

Liberal Arts Building 145 ~ 260-481-6841

This program is available to all IPFW students except those pursuing the language, teacher-certification, or writing concentration with a major in English.

Program Requirements

You may earn a minor in professional writing by completing the following 15 credits, including at least 8 credits completed as resident credit at IPFW, with a grade of C or better in each course.

Preparatory course work in writing (minimum of 3 credits)

One of the following: Credits: 3

ENG W232 - Introduction to Business Writing Cr. 3.
ENG W233 - Intermediate Expository Writing Cr. 3.
ENG W234 - Technical Report Writing Cr. 3.
ENG W331 - Business and Administrative Writing Cr. 3.

Advanced course work in professional writing

(minimum of 9 credits)

ENG W365 - Theories and Practices of Editing Cr. 3.

ENG W367 - Writing for Multiple Media Cr. 3.
ENG W398 - Internship in Writing Cr. 1-3.
ENG W420 - Argumentative Writing Cr. 3.
ENG W421 - Technical Writing Projects Cr. 1-3.
ENG W425 - Research Methods for Professional Writers Cr. 3.
ENG W462 - Studies in Rhetoric and Composition Cr. 3.
    (Only topics specifically related to professional writing)

Elective (minimum of 3 credits) Credits: 3

Any course from the above two areas not used to fulfill the area distribution requirements. Any other course at the 200 level and above which supports your professional interest in writing. Examples include but are not limited to the following courses:

VCD P254 - Principles of Graphic Design II Cr. 3.
    This course must be approved by the English department chair.
COM 32400 - Introduction to Organizational Communication Cr. 3.
ENG W350 - Advanced Expository Writing Cr. 3.
ENG W405 - Writing Prose - Nonfiction Cr. 2-3.
JOUR J200 - Reporting, Writing and Editing I Cr. 3.
JOUR J310 - Editorial Practices Cr. 3.

Total Credits: 15

Psychology Minor

Program: Minor
Department of Psychology
College of Arts and Sciences

Neff Hall 388 ~ 260-481-6403 ~ www.ipfw.edu/psyc

If you are pursuing a major other than psychology, you may earn a minor in psychology by completing the following 15 credits with a grade of C- or better in each course and earning at least 8 credits as resident credit at IPFW:

Program Requirements

PSY 12000 - Elementary Psychology Cr. 3.

One of the following: Credits: 3

PSY 31400 - Introduction to Learning Cr. 3.
PSY 32900 - Psychobiology II: Principles of Psychobiological Psychology Cr. 3.
PSY 41600 - Cognitive Psychology Cr. 3.

One of the following: Credits: 3

PSY 23500 - Child Psychology Cr. 3.

Credit not given for both PSY 23500 & PSY 36900

PSY 24000 - Introduction to Social Psychology Cr. 3.

PSY 36900 - Development Across the Lifespan Cr. 3.

Credit not given for both PSY 23500 & PSY 36900

One of the following: Credits: 3

PSY 35000 - Abnormal Psychology Cr. 3.

PSY 42000 - Introduction to Personality Theory Cr. 3.

Additional credits in a psychology course numbered 200 or above Credits: 3

Total Credits: 15

Public Affairs Minor

Program: Minor

Neff Hall 260 ~ 260-481-6351 ~ www.ipfw.edu/spea/

The minor in public affairs offers you the opportunity to become more knowledgeable in the field of public administration and the policy implications of the public sector. It is available to students who are enrolled in baccalaureate programs and can enhance career opportunities for liberal arts and other majors.

Program Requirements

Each minor requires 15 hours of specified courses with a 2.0 grade-point average, and none of the courses may be taken by correspondence through the Division of Continuing Studies.

SPEA majors may double-count only 6 of the required 15 credit hours in other SPEA major or minor requirements. Students may earn more than one minor from SPEA, but each minor must have at least 9 hours that are not satisfying other major or minor requirements.

SPEA V170 - Introduction to Public Affairs Cr. 3.

C- or better required

One of the following: Credits: 3

SPEA E162 - Environment and People Cr. 3.

SPEA E272 - Introduction to Environmental Sciences Cr. 3.

Three of the following: Credits: 9

SPEA E272 - Introduction to Environmental Sciences Cr. 3.

SPEA E400 - Topics in Environmental Studies Cr. 3.

(may be repeated)

SPEA V263 - Public Management Cr. 3.

SPEA V366 - Managing Behavior in Public Organizations Cr. 3.
SPEA V373 - Human Resources Management in the Public Sector Cr. 3.
SPEA V376 - Law and Public Policy Cr. 3.
SPEA V450 - Contemporary Issues in Public Affairs Cr. 1-3.
    (may be repeated)

Total Credits: 15

Public Relations Minor

Program: Minor
School of Arts and Sciences

Neff Hall 343 ~ 260-481-6685 ~ www.ipfw.edu/jour/

The IPFW Journalism Program offers two minors that may be completed as part of a bachelor's program at IPFW. The public relations minor will appeal to those wishing to concentrate in the corporate communications or advertising/public relations industries; the journalism minor described earlier provides basic underpinning for those interested in various media.

These minors are especially appropriate for media and public communication or English communication media majors.

Program Requirements

To earn the minor, you must complete each course with a grade of C or better, with at least 11 of the credits taken as resident credit at IPFW.

JOUR J200 - Reporting, Writing and Editing I Cr. 3.

Two of the following: Credits: 6

JOUR J210 - Visual Communication Cr. 3.
JOUR J310 - Editorial Practices Cr. 3.
JOUR J315 - Feature Writing Cr. 3.

Two of the following: Credits: 6

COM 25300 - Introduction to Public Relations Cr. 3.
COM 33200 - Television Studio Production Cr. 3.
JOUR J280 - Sophomore Seminar in Journalism Cr. 3.
JOUR J390 - Corporate Publications Cr. 1-3.
JOUR J427 - Public Relations in a Democratic Society Cr. 3.

One of the following: Credits: 3

COM 49000 - Internship in Communication Cr. 1-3.
ENG W398 - Internship in Writing Cr. 1-3.
JOUR J492 - Media Internship Cr. 1-3.

Total Credits: 18

Religious Studies Minor

Program: Minor Department of Philosophy
College of Arts and Sciences

Liberal Arts Building 23~ 260-481-6366 ~ www.ipfw.edu/phil

Religious Studies is an interdisciplinary program housed in the department of philosophy. Students may earn a minor in religious studies by completing the following credits with a grade of C or better in each course and earning at least 8 credits as resident credit at IPFW. Substitutions for these courses may be made with the approval of the program coordinator.

Program Requirements

REL 11200 - Religion and Culture Cr. 3.
PHIL 20600 - Philosophy of Religion Cr. 3.
REL 23000 - Religions of the East Cr. 3.
REL 23100 - Religions of the West Cr. 3.

Additional Credits

One course at the 300 level or above with significant emphasis on the academic study of religion. Credits: 3

Note: Must get course approval from the program coordinator.

Total Credits: 15

Sociology Minor

Program: Minor
Department of Sociology
College of Arts and Sciences

Liberal Arts Building 241 ~ 260-481-6842 ~ www.ipfw.edu/sociology

Program Requirements

If you are pursuing a major other than sociology, you may earn a minor in sociology by completing 15 credits with a grade of C or better in each course, including at least 8 credits as resident credit at IPFW, a minimum of 9 credits at the 300 level or above, and no more than 3 credits of SOC S495 or directed study.

Spanish Minor

Program: Minor
Department of International Language and Culture Studies
College of Arts and Sciences

Liberal Arts Building 267 ~ 260-481-6836 ~ www.ipfw.edu/ilcs/

If you are pursuing a major other than Spanish, you may earn a minor in Spanish by completing the following credits with a grade of C or better in each course and earning at least 8 credits as resident credit at IPFW:

Study Abroad Both majors and nonmajors are encouraged to study abroad. For those who wish to study Spanish, Indiana University administers and cosponsors an academic-year program in Madrid, Spain; semester programs in Spain (Alicante, Madrid, and Seville) and Chile (Santiago); and summer programs in Spain (Salamanca) and Mexico (Cuernavaca and Guanajuato).

Program Requirements

One of the following 300-level literature courses Credits: 3

SPAN S301 - The Hispanic World I Cr. 3.
SPAN S302 - The Hispanic World II Cr. 3.

Additional 300- or 400-level Spanish civilization, language, or literature course Credits: 3

SPAN S275 - Hispanic Culture and Conversation Cr. 3.
SPAN S311 - Spanish Grammar Cr. 3.
SPAN S312 - Written Composition in Spanish Cr. 3.

Total Credits: 15

Spanish Teaching Minor

Program: Teaching Minor
Department of International Language and Culture Studies
College of Arts and Sciences

Liberal Arts Building 267 ~ 260-481-6836 ~ www.ipfw.edu/ilcs/

If you are already licensed or qualified to be licensed in another area, you may earn a Spanish teaching minor by completing the following 38 credits with a grade of C or better in each course.

Program Requirements

SPAN S111 - Elementary Spanish I Cr. 4.

SPAN S112 - Elementary Spanish II Cr. 4.
SPAN S203 - Second-Year Spanish I Cr. 3.
SPAN S204 - Second-Year Spanish II Cr. 3.
SPAN S275 - Hispanic Culture and Conversation Cr. 3.
SPAN S311 - Spanish Grammar Cr. 3.
SPAN S312 - Written Composition in Spanish Cr. 3.
SPAN S317 - Spanish Conversation and Diction Cr. 3.
SPAN S488 - Spanish for Teachers Cr. 3.

One of the following 300-level literature courses Credits: 3

SPAN S301 - The Hispanic World I Cr. 3.
SPAN S302 - The Hispanic World II Cr. 3.

One of the following culture/civilization courses: Credits: 3

SPAN S411 - Spain: The Cultural Context Cr. 3.
SPAN S412 - Spanish America: The Cultural Context Cr. 3.
SPAN S413 - Hispanic Culture in the U.S. Cr. 3.

Total Credits: 38

Theatre Minor

Program: Minor
Department of Theatre
College of Visual and Performing Arts

Williams Theatre 128 ~ 260-481-6551 ~ www.ipfw.edu/vpa/theatre

Program Requirements

You may earn a theatre minor by completing the following courses and earning a grade of C or better in each:

THTR 13400 - Fundamentals of Performance Cr. 3.
THTR 13800 - Acting I Cr. 3.
THTR 16800 - Theatre Production I Cr. 1.
    Must be repeated once for total of 2 credits
THTR 20100 - Theatre Appreciation Cr. 3.
THTR 26100 - Introduction to Theatrical Design Cr. 3.
THTR 28400 - Textual Analysis Cr. 3.

One of the following: Credits: 3

THTR 47000 - Theatre and Society I Cr. 3.
THTR 47100 - Theatre and Society II Cr. 3.

Theatre electives Credits: 3

Total Credits: 23

Women's Studies Minor

Program: Minor
College of Arts and Sciences

Liberal Arts Building 35F ~ 260-481-6711 ~ www.ipfw.edu/wost

Women's studies is based on the premise that the study of women's experiences, concerns, social roles, and creativity is essential to our knowledge of humankind and society. Feminist scholarship and theory provide the knowledge and analytical tools necessary for a gender-balanced perspective on our world, both past and present. The Women's Studies Program affords you the opportunity to pursue feminist scholarship on women and gender through a variety of interdisciplinary courses.

See College of Arts and Sciences in see Part 4 for further information.

If you are pursuing a major other than women's studies, you may earn a minor in women's studies by completing the following 15 credits with a grade of C or better in each course and earning at least 8 credits as resident credit at IPFW.

Program Requirements

Credits from cross-listed courses in humanities or visual arts Credits: 3

Credits from cross-listed courses offered in social science or natural science Credits: 3

Additional credits in cross-listed or WOST-prefixed courses Credits: 6

WOST W210 - Introduction to Women's Studies Cr. 3.

Total Credits: 15

Research Certificate

Anthropology Research Certificate

Program: Research Certificate in Anthropology
Department of Anthropology
College of Arts and Sciences

Kettler Hall G11A ~ 260-481-6272 ~ www.ipfw.edu/anthropology

The student learning outcomes for the degree are as follows:

Achieve familiarity with different cultures in at least two regions of the world

Know the major anthropological approaches to understanding the human condition
Be able to explain societies in a holistic manner
Achieve competency in writing
Demonstrate critical thinking
Acquire quantitative skills for analysis
Demonstrate a willingness to engage learning and scholarship as a life-long endeavor

Courses in anthropology provide an understanding of the nature of cultures and help you assess various explanations of human behavior; they also assist in the development of analytical and critical abilities. The curriculum is structured to include studies in the history and theory of anthropology, in four anthropological fields (ethnology, archaeology, bioanthropology, and linguistics), in at least two different world ethnographic areas, and in topical specializations. The program helps you prepare for graduate study, for teaching, and for careers in which the understanding of various cultures is an asset.

Although a minor is not required for the B.A. with a major in anthropology, an outside concentration is recommended. Fifteen credits in history, political science, psychology, or sociology support the concentration.

Research Writing

ENG W233 - Intermediate Expository Writing Cr. 3.

History, Philosophy, or Theory of the Discipline

ANTH H445 - History and Theory of Anthropology Cr. 3.

Cognate Research Tools

Any STAT course or one of the following:

POLS Y395 - Quantitative Political Analysis Cr. 3.
PSY 20100 - Introduction to Statistics in Psychology Cr. 3.
SOC S351 - Social Statistics Cr. 3.

Research Methods and Supervised Individual Research Credits: 6

Individualized Research
ANTH A495 - Individual Readings in Anthropology Cr. 1-4.
and/or
Research Methods
ANTH P382 - Archaeological Research Design Cr. 3.
ANTH P400 - Archaeological Methods and Techniques Cr. 2-4.

Total Credits: 15

Note

Each student must present his or her research in a professional forum approved by the anthropology faculty.

Biology Research Certificate

Program: Research Certificate
Department of Biology
College of Arts and Sciences

Science Building 330 ~ 260-481-6305 ~ www.ipfw.edu/bio

The student learning outcomes for the degree are as follows:

To provide students with significant hands-on experience and training in the use of scientific methods to test hypotheses and to answer questions.

Research Writing

ENG W233 - Intermediate Expository Writing Cr. 3.

History, Philosophy, or Theory of the Discipline

BIOL 11700 - Principles of Ecology and Evolution Cr. 4.
BIOL 11900 - Principles of Structure and Function Cr. 4.
BIOL 21700 - Intermediate Ecology Cr. 3.
BIOL 21800 - Genetics and Molecular Biology Cr. 4.
BIOL 21900 - Principles of Functional Biology Cr. 4.

Cognate Research Tools

STAT 34000 - Elementary Statistical Methods II Cr. 3.

Research Methods and Supervised Individual Research Credits: 6

The BIOL 295/595 must contain a prefix in its title to signify laboratory or fieldwork involving the design of an original project and collection and analysis of data.

BIOL 29500 - Special Assignments Cr. 1-3.
     and/or
BIOL 59500 - Special Assignments Cr. 1-4.

Total Credits: 30

Chemistry Research Certificate

Program: Research Certificate
Department of Chemistry
College of Arts and Sciences

Mathematical and quantitative reasoning

Student will be able to analyze, synthesize, and comprehend experimental and computational data describing the physical universe. This skill requires knowledge of mathematical and statistical techniques that can be used analytically.

Classical and instrumental laboratory techniques: both analytical and synthetic

Students will learn precise measuring techniques as well as careful and meticulous record-keeping. They will master the use of a variety of modern instruments and will become proficient in fundamental organic synthetic methods.

Individual and collaborative problem-solving

The student will develop independent problem-solving skills as well as the ability to work collaboratively in a team environment on complex chemical systems.

Chemical literature

The student will learn basic tools and concepts for efficient use of chemical literature, including multiple computerized databases. The student will also be expected to analyze sources for relevance and authority and to learn how scientific writings are constructed according to style.

Philosophy of Science

The student will examine topics at the intersection of science and philosophy, specifically addressing fundamental issues in the history, philosophy, and theoretical structure of modern science.

Research in Chemistry

The student will learn research methods and tools appropriate to chemistry and will apply them to the design and execution of a research project. The student will present results of the research project.

Summary of key concepts

In the teaching of Chemistry from the point-of-view of various sub-disciplines, the following concepts form the core course content. It should be noted that courses offered by the IPFW Department of Chemistry will include, but are not simply limited to, the following points of emphasis:

Analytical Chemistry

Analytical methods (classical and instrumental)

Sensitivity and detection limits

Statistical treatment of data

Biochemistry (for premedicine and predental options)

Structure, metabolic relationships, and regulation of biomolecules

General Chemistry

Semi-quantitative microscopic model of the physical universe based on macroscopic observations

Terminology

Periodic relationships

Elementary computational skills

Introductory laboratory skills

Inorganic Chemistry

Chemical bonding and structure

Reactivity, reaction mechanisms, and properties

Solid state and material science

Organometallic chemistry

Spectroscopic determination of structure

Organic Chemistry

Chemical bonding and structure including valence bond and molecular orbital theories

Reactivity, reaction mechanisms, and properties of the important functional groups

Synthesis

Spectroscopic determination of structure

Material science and bio-organic chemistry

Physical Chemistry

Mathematical and physical principles that underlie modern Chemistry
Detailed understanding of the modern microscopic model of the universe
The principal topic areas are:
Quantum Chemistry
Thermodynamics
Statistical mechanics
Spectroscopy
Kinetics

Research Writing

ENG W233 - Intermediate Expository Writing Cr. 3.

History, Philosophy, or Theory of the Discipline

PHIL 35100 - Philosophy of Science Cr. 3.

Cognate Research Tools

MA 26100 - Multivariate Calculus Cr. 4.

Research Methods and Supervised Individual Research

CHM 42400 - Analytical Chemistry II Cr. 4.
CHM 49900 - Special Assignments Cr. 1-5
Credits: 3

Total Credits: 17

Mathematical Sciences Research Certificate

Program: Research Certificate
Department of Mathematical Sciences
College of Arts and Sciences

Kettler Hall 200 ~ 260-481-6821 ~ www.ipfw.edu/math

The student learning outcomes for the degree are as follows:

Students in the program will learn research methods and tools appropriate to the mathematical sciences, learn the
foundations of research in the theory of the discipline, learn the advanced communication skills, and
apply what they have learned by executing a research project and communicating the results to others.

Research Writing

ENG W233 - Intermediate Expository Writing Cr. 3.

History, Philosophy, or Theory of the Discipline

MA 30500 - Foundations of Higher Mathematics Cr. 3.

Cognate Research Tools

One of the following Credits: 3-4

CS 16000 - Introduction to Computer Science I Cr. 4.
MA 17500 - Introductory Discrete Mathematics Cr. 3.
STAT 51100 - Statistical Methods Cr. 3.

Research Methods and Supervised Individual Research

One upper-level undergraduate or dual-level course in mathematics or statistics appropriate to the area of research
(e.g., MA 453, MA 441, MA 575, STAT 517)Credits: 3
MA 35100 - Elementary Linear Algebra Cr. 3.
MA 49000 - Topics in Mathematics for Undergraduates Cr. 1-5.
Credits: 3

Total Credits: 18-19

Physics Research Certificate

Program: Research Certificate
Department of Physics
College of Arts and Sciences

Kettler Hall 126B ~ 260-481-6306 ~ www.ipfw.edu/physics/

The student learning outcomes for the degree are as follows:

Add student learning outcome
Add student learning outcome

Research Writing

ENG W233 - Intermediate Expository Writing Cr. 3.

History, Philosophy, or Theory of the Discipline

PHYS 34200 - Modern Physics Cr. 3.

Cognate Research Tools

One of the following Credits: 4

CS 16000 - Introduction to Computer Science I Cr. 4.
MA 26100 - Multivariate Calculus Cr. 4.

Research Methods and Supervised Individual Research

PHYS 34300 - Modern Physics Laboratory Cr. 1.

One of the following Credits: 3-4

PHYS 32200 - Optics Cr. 3.
PHYS 32500 - Scientific Computing Cr. 3.
PHYS 36100 - Electronics for Scientists Cr. 4.
PHYS 40500 - Atomic and Molecular Physics Cr. 3.
PHYS 52000 - Mathematical Physics Cr. 3.

Credits in the following: 6

PHYS 27000 - Special Topics in Physics Cr. 1-5.
PHYS 47000 - Special Topics in Physics Cr. 1-5.

Total Credits: 20-21

Psychology Research Certificate

Program: Research Certificate
Department of Psychology
College of Arts and Sciences

Neff Hall 388 ~ 260-481-6403 ~ www.ipfw.edu/psyc

The student learning outcomes for the degree are as follows:

Students will demonstrate the ability to understand and use the major research methods in psychology, including ethical standards, design, data analysis, and interpretation.
The research certificate is described under Arts and Sciences in Part 4 of this *Bulletin.*

Research Writing

ENG W233 - Intermediate Expository Writing Cr. 3.

History, Philosophy, or Theory of the Discipline

PSY 54000 - History of Psychology Cr. 3.

Cognate Research Tools

PSY 20100 - Introduction to Statistics in Psychology Cr. 3.

Research Methods and Supervised Individual Research

PSY 20300 - Introduction to Research Methods in Psychology Cr. 3.
PSY 49600 - Readings and Research in Psychology Cr. 3.
    (as a research assistant to a faculty member)
PSY 49900 - Honors Thesis in Psychology Cr. 3.

Total Credits: 18

Teacher Certification

Chemistry Teaching Minor

Program: Minor
Department of Chemistry
College of Arts and Sciences

Science Building 496 ~ 260-481-6289 ~ www.ipfw.edu/chem

If you are already licensed or qualified to be licensed in another area, you may earn a chemistry teaching minor by completing the following 32 credits with a grade of C or better in each course.

Program Requirements

CHM 11500 - General Chemistry Cr. 4.
CHM 11600 - General Chemistry Cr. 4.
CHM 21800 - Introduction to Inorganic Chemistry Cr. 3.
CHM 22400 - Introductory Quantitative Analysis Cr. 4.
CHM 25400 - Organic Chemistry Laboratory Cr. 1.
CHM 25500 - Organic Chemistry Cr. 3.
CHM 25600 - Organic Chemistry Cr. 3.
CHM 25800 - Organic Chemistry Laboratory Cr. 1.
CHM 37100 - Physical Chemistry Cr. 3.
EDUC Q400 - Man and Environment: Instructional Methods Cr. 3.
MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.

Total Credits: 32

Earth and Space Science Teaching Minor

Program: Minor
Department of Educational Studies
School of Education

Neff Hall 250 ~ 260-481-6441 ~ www.ipfw.edu/educ

If you are already licensed or qualified to be licensed in another area, you may earn an earth and space science teaching minor by completing the following 27–28 credits with a grade of C or better in each course.

Program Requirements

AST A100 - The Solar System Cr. 3.
CHM 11500 - General Chemistry Cr. 4.
EDUC Q400 - Man and Environment: Instructional Methods Cr. 3.
GEOL G221 - Introductory Mineralogy Cr. 3-4.
    Credits: 3
GEOL G222 - Introduction to Petrology Cr. 3-4.
GEOL G420 - Regional Geology Field Trip Cr. 1-2.
    Credits: 2

One of following Credits: 3-4

GEOG G107 - Physical Systems of the Environment Cr. 3.
    with GEOL L100 (4 credits)
GEOL G100 - General Geology Cr. 3-5.
    with L100 (4 credits)
GEOL G103 - Earth Science: Materials and Processes Cr. 3.

One of following Credits: 3

GEOL G104 - Earth Science: Evolution of the Earth Cr. 3.
GEOL G211 - Introduction to Paleobiology Cr. 3.

One of following Credits: 3

GEOL G315 - Environmental Conservation
GEOL G300 - Environmental and Urban Geology Cr. 3.
GEOL G415 - Geomorphology Cr. 3-4.

Total Credits: 27-28

Economics (Social Studies) Teacher Certification

Program: Teacher Certification
College Arts and Sciences

Neff Hall 366B ~ 260-481-6483 ~ www.ipfw.edu/econ

The student learning outcomes for the degree are not available, please contact the department.

Economics is the study of the rational allocation of scarce resources. The major seeks to develop those critical skills that help you understand and solve problems in a wide variety of circumstances. These analytical abilities are valuable in the business world and many professional disciplines such as law and social work.

This program is offered in close cooperation with the Department of Economics in the Richard T. Doermer School of Business and Management Sciences, which offers all economics courses required for the major.

You may be certified as a teacher of social studies after fulfilling all requirements for the B.A. with a major in economics and all requirements for teacher certification. Full information on teacher certification requirements is available from the School of Education.

Prior to your junior year, the School of Education requires that you successfully complete EDUA F300, EDUC W200/M101, and EDUC 201 and the Pre-Professional Skills Test (PPST) before admission to the teacher education program. The PRAXIS II Specialty Area Exam must be completed before or during the student-teaching semester, normally in your senior year.

Geology Teacher Certification

Program: Teacher Certification
Department of Geosciences
College of Arts and Sciences

Science Building 230 ~ 260-481-6249 ~ www.geosci.ipfw.edu

You may be certified as a teacher of earth and space science after fulfilling the requirements for a B.A. with a major in geology or a B.S. in geology (ENG W233 must be taken as your writing requirement) and the requirements for teacher certification listed below.

The School of Education requires that you first complete EDUA F300, EDUC W200/M101, and EDUC K201 before you are permitted to take professional education courses. Prior to your junior year, you must successfully complete the Pre-Professional Skills Test (PPST) before admission to the teacher education program. The PRAXIS II Specialty Area Exam must be completed before or during the student-teaching semester, normally in your senior year.

To be eligible to apply for teacher licensure, you must earn a GPA of 2.00 or higher in each general education area. You should work closely with your advisor to ensure completion of general education requirements for teacher licensing. You must also earn a cumulative GPA of 2.50 or higher in your major area and the professional education courses with an overall GPA of 2.5 or higher. Each professional education course must be completed with a grade of C or better.

Additional information on teacher-certification requirements is available from the School of Education.

Professional Education

Prior to being admitted to the teacher education program, you must complete the Initial Requirement courses and pass the PPST.

Initial Requirements

EDUA F300 - Topical Exploration in Education Cr. 1-3.

Credits: 2
EDUC K201 - Schools, Society, and Exceptionality Cr. 1-3.
Credits: 1
EDUC M101 - Laboratory/Field Experience Cr. 0-3.
Credits: 0
EDUC W200 - Using Computers for Education Cr. 1.

Block I

AST A100 - The Solar System Cr. 3.
EDUC H340 - Education and American Culture Cr. 2-3.
Credits: 3
EDUC K206 - Teaching Methods for Students with Special Needs Cr. 1-3.
Credits: 3
EDUC P250 - General Educational Psychology Cr. 1-4.
EDUC M201 - Laboratory/Field Experience Cr. 0-3.

Block II

EDUC M449 - Methods of Teaching Science in the Secondary Schools Cr. 3.
EDUC P253 - Educational Psychology for Secondary Teachers Cr. 1-4.
EDUC M301 - Laboratory/Field Experience Cr. 0-3.
EDUC M401 - Laboratory/Field Experience Cr.0-3.
EDUC Q400 - Man and Environment: Instructional Methods Cr. 3.
EDUC X401 - Critical Reading in the Content Area Cr. 1-3.

Student Teaching

EDUC M480 - Student Teaching in the Secondary School Cr. 1-16.
Credits: 12
EDUC M501 - Lab/Field Experience Cr. 0-3.
Credits: 0
EDUC M470 - Practicum Cr. 3-8.
(recommended for Middle School certification) Credits: 4

History (Social Studies) Teacher Certification

Program: Teacher Certification
Department of History
College of Arts and Sciences

Liberal Arts Building 209 ~ 260-481-6686 ~ www.ipfw.edu/hist

You may be certified as a teacher of social studies after fulfilling all requirements for the B.A. with a major in history and all requirements for teacher certification. Full information on teacher-certification requirements is available from the School of Education.

Prior to your junior year, the School of Education requires that you successfully complete EDUA F300, EDUC W200/M101, and EDUC K201 and the Pre-Professional Skills Test (PPST) before admission to the teacher education

program. The PRAXIS II Specialty Area Exam must be completed before or during the student-teaching semester, normally in your senior year.

Language Arts Teaching Minor

Program: Minor
Department of English and Linguistics

Liberal Arts Building 145 ~ 260-481-6841 ~ www.ipfw.edu/engl

If you are already licensed or qualified to be licensed in another area, you may earn a language arts teaching minor by completing the following 24 credits with a grade of C or better in each course.

Program Requirements

One elective 300-level course in British literature Credits: 3
One elective 300-level course in American literature Credits: 3
ENG L391 - Literature for Young Adults Cr. 3.
EDUC X401 - Critical Reading in the Content Area Cr. 1-3.

One of the following Credits: 3

COM 25000 - Mass Communication and Society Cr. 3.
JOUR C200 - Mass Communications Cr. 3.

One of the following Credits: 3

One course in multicultural literature
ENG L101 - Western World Masterpieces I: Ancient to Renaissance Cr. 3.
ENG L102 - Western World Masterpieces II: Renaissance to Modern Cr. 3.

One of the following Credits: 3

ENG L202 - Literary Interpretation Cr. 3.
ENG W233 - Intermediate Expository Writing Cr. 3.

One of the following Credits: 3

ENG G205 - Introduction to the English Language Cr. 3.
ENG G206 - Introduction to the Study of Grammar Cr. 3.
LING L103 - Introduction to the Study of Language Cr. 3.

Total Credits: 24

Life Science Teaching Minor

Program: Minor
Department of Biology
College of Arts and Sciences

Science Building 330 ~ 260-481-6305 ~ www.ipfw.edu/bio

If you are already licensed or qualified to be licensed in another area, you may earn a life science teaching minor by completing the following 29 credits with a grade of C or better in each course.

Program Requirements

BIOL 11700 - Principles of Ecology and Evolution Cr. 4.
BIOL 11900 - Principles of Structure and Function Cr. 4.
BIOL 21700 - Intermediate Ecology Cr. 3.
BIOL 21800 - Genetics and Molecular Biology Cr. 4.
BIOL 21900 - Principles of Functional Biology Cr. 4.
CHM 11500 - General Chemistry Cr. 4.
CHM 11600 - General Chemistry Cr. 4.
EDUC Q400 - Man and Environment: Instructional Methods Cr. 3.

Total Credit: 29

Mathematics Teacher Certification Minor

Program: Teacher Certification Minor
Department of Mathematical Sciences
College of Arts and Sciences

Kettler Hall 200 ~ 260-481-6821 ~ www.ipfw.edu/math

If you are already licensed or qualified to be licensed in another area, you may earn a mathematics teaching minor by completing the following 26–27 credits with a grade of C or better in each course.

Program Requirements

MA 16500 - Analytic Geometry and Calculus I Cr. 4.
MA 16600 - Analytic Geometry and Calculus II Cr. 4.
MA 17500 - Introductory Discrete Mathematics Cr. 3.
MA 30500 - Foundations of Higher Mathematics Cr. 3.
MA 35100 - Elementary Linear Algebra Cr. 3.
MA 56000 - Fundamental Concepts of Geometry Cr. 3.

One of the following: Credits: 3-4

CS 11400 - Introduction to Visual Basic Cr. 3.
CS 16000 - Introduction to Computer Science I Cr. 4.
MA 45300 - Elements of Algebra Cr. 3.

MA 57500 - Graph Theory Cr. 3.

One of the following: Credits: 3

STAT 51100 - Statistical Methods Cr. 3.
STAT 51600 - Basic Probability and Applications Cr. 3.

Total Credits: 26-27

Mild Intervention Certification

In addition to the major in elementary or secondary education, students may earn certification in mild intervention. (This certification qualifies a teacher to teach students with emotional, learning, mild, and moderate disabilities in elementary or secondary school settings, depending on your current license.) Each course in the Mild Intervention Certification must be completed with a grade of C or better. (Note: a 24-credit graduate version of this program is available. See the graduate bulletin for more details.)

Program Requirements

One of the following:
EDUC K201 - Schools, Society, and Exceptionality Cr. 1-3.
EDUC K305 - Teaching the Exceptional Learner in the Elementary School Cr. 3.
EDUC K306 - Teaching Students with Special Needs in Secondary Classrooms Cr. 3.
One of the following:
EDUC K206 - Teaching Methods for Students with Special Needs Cr. 1-3.
EDUC K307 - Methods for Teaching Students with Special Needs Cr. 3.
Each of the remaining:
EDUC K370 - Introduction to Learning Disabilities Cr. 3.
EDUC K441 - Transition Across the Lifespan Cr. 3.
EDUC K453 - Management of Academic and Social Behavior Cr. 3.
EDUC K371 - Assessment and Individualized Instruction in Reading and Mathematics Cr. 3.
EDUC M301 - Laboratory/Field Experience Cr. 0-3.
EDUC K352 - Education of Children with Learning Problems (LD and EMR) Cr. 3.
EDUC M201 - Laboratory/Field Experience Cr. 0-3.
EDUC K465 - Service Delivery Systems and Consultation Strategies Cr. 3.
EDUC M470 - Practicum Cr. 3-8.
(4 credits - Final Course)

Total Credits: 26-28

The Mild Intervention program is undergoing revisions. Students enrolled in an elementary teacher certification program will follow slightly different course requirements than students enrolled in a secondary or all-grade teacher certification program. Please see your education advisor or the special education coordinator to make sure you are selecting the appropriate "One of the following:" courses listed above.

Physical Science Teaching Certification - Chemistry

To earn the physical science teaching certification, you must fulfill all requirements for the B.S. with a major in chemistry or physics, and you must complete ENG W233 as your writing requirement and satisfactorily complete the courses listed below.

The School of Education requires that you first complete EDUA F300, EDUC W200/M101, and EDUC K201 before you are permitted to take professional education courses. Prior to your junior year, you must successfully complete the Pre-Professional Skills Test (PPST) before admission to the teacher education program. The PRAXIS II Specialty Area Exam must be completed before or during the student-teaching semester, normally in your senior year.

To be eligible to apply for teacher licensure, you must earn a GPA of 2.00 or higher in each general education area. You should work closely with your advisor to ensure completion of general education requirements for teacher licensing. You must also earn a cumulative GPA of 2.50 or higher in your major area and the professional education courses with an overall GPA of 2.5 or higher. Each professional education course must be completed with a grade of C or better.

Content Requirements

CHM 11500 - General Chemistry Cr. 4.
CHM 11600 - General Chemistry Cr. 4.
CHM 25400 - Organic Chemistry Laboratory Cr. 1.
CHM 25500 - Organic Chemistry Cr. 3.
CHM 25600 - Organic Chemistry Cr. 3.
CHM 25800 - Organic Chemistry Laboratory Cr. 1.
MA 15300 - Algebra and Trigonometry I Cr. 3.
MA 15400 - Algebra and Trigonometry II Cr. 3.
MA 16500 - Analytic Geometry and Calculus I Cr. 4.
MA 16600 - Analytic Geometry and Calculus II Cr. 4.
MA 26100 - Multivariate Calculus Cr. 4.
PHYS 15200 - Mechanics Cr. 5.
PHYS 25100 - Heat, Electricity, and Optics Cr. 5.
PHYS 31000 - Intermediate Mechanics Cr. 4.
PHYS 32200 - Optics Cr. 3.
PHYS 34200 - Modern Physics Cr. 3.
PHYS 34300 - Modern Physics Laboratory Cr. 1.

School of Education Requirements

Prior to being admitted to the teacher education program, you must complete an initial set of requirements.

Initial Requirements:

PPST
EDUA F300 - Topical Exploration in Education Cr. 1-3.
    Course Title: Invitation to Teaching
    Credits: 2
EDUC K201 - Schools, Society, and Exceptionality Cr. 1-3.
    Credits: 2
EDUC M101 - Laboratory/Field Experience Cr. 0-3.
    Credits: 0
EDUC W200 - Using Computers for Education Cr. 1.
    Credits: 1
    (a grade of A or B is required)

Block 1: Teacher Education (Prerequisite: Initial Requirements)

EDUC H340 - Education and American Culture Cr. 2-3.
  Credits: 3
EDUC K206 - Teaching Methods for Students with Special Needs Cr. 1-3.
  Credits: 3
EDUC M201 - Laboratory/Field Experience Cr. 0-3.
  Credits: 0
EDUC P250 - General Educational Psychology Cr. 1-4.
  Credits: 3

Block 2: Professional Education (Prerequisite: Block 1)

EDUC M201 - Laboratory/Field Experience Cr. 0-3.
  Credits: 0
EDUC M449 - Methods of Teaching Science in the Secondary Schools Cr. 3.
EDUC P253 - Educational Psychology for Secondary Teachers Cr. 1-4.
  Credits: 3
EDUC Q400 - Man and Environment: Instructional Methods Cr. 3.
EDUC X401 - Critical Reading in the Content Area Cr. 1-3.
  Credits: 3

Student Teaching

EDUC M501 - *Portfolio* Cr. 0
EDUC M470 - Practicum Cr. 3-8.
  (recommended for Middle School Endorsement area)
  Credits: 4
EDUC M480 - Student Teaching in the Secondary School Cr. 1-16.
  Credits: 12

Additional Credits: 93

Physical Science Teaching Certification Minor

Program: Minor
Department of Chemistry
College of Arts and Sciences

Science Building 496 ~ 260-481-6289 ~ www.ipfw.edu/chem

If you are already licensed or qualified to be licensed in another secondary area, you may earn a physical science teaching minor by completing the following 62 credits with a grade of C or better in each course.

Program Requirements

CHM 11500 - General Chemistry Cr. 4.
CHM 11600 - General Chemistry Cr. 4.

CHM 22400 - Introductory Quantitative Analysis Cr. 4.
CHM 25400 - Organic Chemistry Laboratory Cr. 1.
CHM 25500 - Organic Chemistry Cr. 3.
CHM 25600 - Organic Chemistry Cr. 3.
CHM 25800 - Organic Chemistry Laboratory Cr. 1.
EDUC Q400 - Man and Environment: Instructional Methods Cr. 3.
MA 15300 - Algebra and Trigonometry I Cr. 3.
MA 15400 - Algebra and Trigonometry II Cr. 3.
MA 16500 - Analytic Geometry and Calculus I Cr. 4.
MA 16600 - Analytic Geometry and Calculus II Cr. 4.
MA 26100 - Multivariate Calculus Cr. 4.
PHYS 15200 - Mechanics Cr. 5.
PHYS 25100 - Heat, Electricity, and Optics Cr. 5.
PHYS 31000 - Intermediate Mechanics Cr. 4.
PHYS 32200 - Optics Cr. 3.
PHYS 34200 - Modern Physics Cr. 3.
PHYS 34300 - Modern Physics Laboratory Cr. 1.

Total Credits: 62

Physical Science Teaching Certification-Physics

Students who wish to earn physical science teaching certification should complete the requirements for the B.S. with a major in physics teaching with the following adjustments. In addition, the Praxis II Specialty Area Exam in both physics and chemistry must be completed before or during the student teaching semester, normally in your senior year.

Will reason about physically significant problems conceptually and mathematically
Will solve complex physical problems using sophisticated mathematical techniques
Will interpret mathematical solutions conceptually and physically
Will use computation and computer modeling to investigate physical phenomena and solve physical problems
Will communicate in appropriate scientific media and forms
Will be aware of student conceptual difficulties in learning physics
Will be aware of effective teaching techniques for physics
Will be aware of appropriate physics laboratory methods
Will be aware of effective teaching techniques for chemistry
Will be aware of appropriate chemistry laboratory methods

Core and Concentration (Major) Courses (Credits: 35)

PHYS 15200 - Mechanics Cr. 5.
PHYS 25100 - Heat, Electricity, and Optics Cr. 5.
PHYS 31000 - Intermediate Mechanics Cr. 4.
PHYS 32200 - Optics Cr. 3.
PHYS 33000 - Intermediate Electricity and Magnetism Cr. 3.
PHYS 33100 - Electricity and Magnetism II Cr. 3.
PHYS 34200 - Modern Physics Cr. 3.
PHYS 34300 - Modern Physics Laboratory Cr. 1.
PHYS 34500 - Optics Laboratory I Cr. 1.
PHYS 34600 - Advanced Laboratory I Cr. 1.
PHYS 51500 - Thermal and Statistical Physics Cr. 3.
PHYS 55000 - Introduction to Quantum Mechanics Cr. 3.

Supporting Courses (Credits: 44)

CHM 11500 - General Chemistry Cr. 4.
CHM 11600 - General Chemistry Cr. 4.
CHM 25400 - Organic Chemistry Laboratory Cr. 1.
CHM 25500 - Organic Chemistry Cr. 3.
CHM 25600 - Organic Chemistry Cr. 3.
CHM 25800 - Organic Chemistry Laboratory Cr. 1.
CHM 32100 - Analytical Chemistry I Cr. 4.
MA 15300 - Algebra and Trigonometry I Cr. 3.
MA 15400 - Algebra and Trigonometry II Cr. 3.
MA 16500 - Analytic Geometry and Calculus I Cr. 4.
MA 16600 - Analytic Geometry and Calculus II Cr. 4.
MA 26100 - Multivariate Calculus Cr. 4.
MA 35100 - Elementary Linear Algebra Cr. 3.
MA 36300 - Differential Equations Cr. 3.

Political Science (Social Studies) Teacher Certification

You may be certified as a teacher of social studies after fulfilling all requirements for the B.A. with a major in political science and all requirements for teacher certification. Full information on teacher certification requirements is available from the School of Education.

Prior to your junior year, the School of Education requires that you successfully complete EDUA F300, EDUC W200/M101, and EDUC K201 and the Pre-Professional Skills Test (PPST) before admission to the teacher education program. The PRAXIS II Specialty Area Exam must be completed before or during the student-teaching semester, normally in your senior year.

Notes

Neither Y398 (Internship in Urban Institutions) not Y482 (Practicum) may count for more 6 credits for the major; these two courses together may not count for more than 9 credits for the major.

Secondary Education Teaching Minor

Program: Minor
Department of Educational Studies
School of Education

Neff Hall 250 ~ 260-481-6441 ~ www.ipfw.edu/educ

In addition to the content area teaching majors, students can also obtain a teaching minor in one or more of the following areas:

Chemistry Teaching Minor (35 credits)

CHM 11500 - General Chemistry Cr. 4.
CHM 11600 - General Chemistry Cr. 4.

CHM 21800 - Introduction to Inorganic Chemistry Cr. 3.
CHM 22400 - Introductory Quantitative Analysis Cr. 4.
CHM 25400 - Organic Chemistry Laboratory Cr. 1.
CHM 25500 - Organic Chemistry Cr. 3.
CHM 25600 - Organic Chemistry Cr. 3.
CHM 25800 - Organic Chemistry Laboratory Cr. 1.
CHM 37100 - Physical Chemistry Cr. 3.
EDUC Q400 - Man and Environment: Instructional Methods Cr. 3.
MA 15300 - Algebra and Trigonometry I Cr. 3.
MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.

Earth and Space Science Teaching Minor (27–28 credits)

AST A100 - The Solar System Cr. 3.
CHM 11500 - General Chemistry Cr. 4.
EDUC Q400 - Man and Environment: Instructional Methods Cr. 3.
GEOL G221 - Introductory Mineralogy Cr. 3-4.
    Credits: 3
GEOL G222 - Introduction to Petrology Cr. 3-4.
GEOL G420 - Regional Geology Field Trip Cr. 1-2.
    Credits: 2

One of the following: Credits: 3-4

GEOG G107 - Physical Systems of the Environment Cr. 3.
GEOL G100 - General Geology Cr. 3-5.
GEOL G103 - Earth Science: Materials and Processes Cr. 3.
GEOL L100 - General Geology Laboratory Cr. 1-2.

One of the following: Credits: 3

GEOL G104 - Earth Science: Evolution of the Earth Cr. 3.
GEOL G211 - Introduction to Paleobiology Cr. 3.

One of the following: Credits: 3

GEOG G315 - Environmental Conservation Cr. 3.
GEOL G300 - Environmental and Urban Geology Cr. 3.
GEOL G415 - Geomorphology Cr. 3-4.

French Teaching Minor (34 credits)

FREN F3xx-4xx - Language elective (300–400 level) Credits: 3
FREN F3xx-4xx - Literature elective (300–400 level) Credits: 3
FREN F216 - Second-Year French Conversation Credits: 2

FREN F111 - Elementary French I Cr. 4.
FREN F112 - Elementary French II Cr. 4.
FREN F203 - Second-Year French I Cr. 3.
FREN F204 - Second-Year French II Cr. 3.

FREN F213 - Second-Year French Composition Cr. 3.
FREN F317 - French Language Skills I Cr. 3.
FREN F318 - French Language Skills II Cr. 3.
FREN F325 - Oral French for Teachers Cr. 3-8.

One of the following: Credits: 3

FREN F463 - Civilisation Francaise I Cr. 3.
FREN F464 - Civilisation Francaise II Cr. 3.

German Teaching Minor (32 credits)

GER G3xx-4xxElectives (300–400 level) Credits: 9
GER G111 - Elementary German I Cr. 4.
GER G112 - Elementary German II Cr. 4.
GER G203 - Second-Year German I Cr. 3.
GER G204 - Second-Year German II Cr. 3.
GER G318 - German Language Skills I Cr. 3-5.
GER G325 - German for Teachers Cr. 3.
GER G463 - German Culture Cr. 3.
GER G464 - Kultur Und Gesellschaft Cr. 3.

One of the following: Credits: 3

GER G3xx-4xxElectives (300–400 level) Credits: 9
GER G362 - Introduction to Contemporary Germany Cr. 3.
GER G363 - Deutsche Kulturgeschichte Cr. 3.

Language Arts (English) Teaching Minor (24 credits)

British literature elective Credits: 3

American literature elective Credits: 3
EDUC X401 - Critical Reading in the Content Area Cr. 1-3.
ENG L391 - Literature for Young Adults Cr. 3.

One of the following: Credits: 3

ENG L101 - Western World Masterpieces I: Ancient to Renaissance Cr. 3.
ENG L102 - Western World Masterpieces II: Renaissance to Modern Cr. 3.

One of the following: Credits: 3

ENG L202 - Literary Interpretation Cr. 3.
ENG W233 - Intermediate Expository Writing Cr. 3.

One of the following: Credits: 3

COM 25000 - Mass Communication and Society Cr. 3.
JOUR C200 - Mass Communications Cr. 3.

One of the following: Credits: 3

ENG G205 - Introduction to the English Language Cr. 3.
ENG G206 - Introduction to the Study of Grammar Cr. 3.
LING L103 - Introduction to the Study of Language Cr. 3.

Life Science (Biology) Teaching Minor (29 credits)

BIOL 11700 - Principles of Ecology and Evolution Cr. 4.
BIOL 11900 - Principles of Structure and Function Cr. 4.
BIOL 21700 - Intermediate Ecology Cr. 3.
BIOL 21800 - Genetics and Molecular Biology Cr. 4.
BIOL 21900 - Principles of Functional Biology Cr. 4.
CHM 11500 - General Chemistry Cr. 4.
CHM 11600 - General Chemistry Cr. 4.
EDUC Q400 - Man and Environment: Instructional Methods Cr. 3.

Mathematics Teaching Minor (32 credits)

MA 15300 - Algebra and Trigonometry I Cr. 3.
MA 15400 - Algebra and Trigonometry II Cr. 3.
MA 16500 - Analytic Geometry and Calculus I Cr. 4.
MA 16600 - Analytic Geometry and Calculus II Cr. 4.
MA 17500 - Introductory Discrete Mathematics Cr. 3.
MA 30500 - Foundations of Higher Mathematics Cr. 3.
MA 35100 - Elementary Linear Algebra Cr. 3.
MA 56000 - Fundamental Concepts of Geometry Cr. 3.

One of the following: Credits: 3

CS 16000 - Introduction to Computer Science I Cr. 4.
MA 45300 - Elements of Algebra Cr. 3.
MA 57500 - Graph Theory Cr. 3.

One of the following: Credits: 3

STAT 51100 - Statistical Methods Cr. 3.
STAT 51600 - Basic Probability and Applications Cr. 3.

Physical Science Teaching Minor (62 credits)

(This subject area can be used as a minor teaching area or as a certification-only teaching major.)

CHM 11500 - General Chemistry Cr. 4.
CHM 11600 - General Chemistry Cr. 4.
CHM 22400 - Introductory Quantitative Analysis Cr. 4.

CHM 25400 - Organic Chemistry Laboratory Cr. 1.
CHM 25500 - Organic Chemistry Cr. 3.
CHM 25600 - Organic Chemistry Cr. 3.
CHM 25800 - Organic Chemistry Laboratory Cr. 1.
EDUC Q400 - Man and Environment: Instructional Methods Cr. 3.
MA 15300 - Algebra and Trigonometry I Cr. 3.
MA 15400 - Algebra and Trigonometry II Cr. 3.
MA 16500 - Analytic Geometry and Calculus I Cr. 4.
MA 16600 - Analytic Geometry and Calculus II Cr. 4.
MA 26100 - Multivariate Calculus Cr. 4.
PHYS 15200 - Mechanics Cr. 5.
PHYS 25100 - Heat, Electricity, and Optics Cr. 5.
PHYS 31000 - Intermediate Mechanics Cr. 4.
PHYS 32200 - Optics Cr. 3.
PHYS 34200 - Modern Physics Cr. 3.
PHYS 34300 - Modern Physics Laboratory Cr. 1.

Physics Teaching Minor (46 credits)

MA 262 - Linear Algebra and Differential Equations Credits: 4
EDUC Q400 - Man and Environment: Instructional Methods Cr. 3.
MA 15300 - Algebra and Trigonometry I Cr. 3.
MA 15400 - Algebra and Trigonometry II Cr. 3.
MA 16500 - Analytic Geometry and Calculus I Cr. 4.
MA 16600 - Analytic Geometry and Calculus II Cr. 4.
MA 26100 - Multivariate Calculus Cr. 4.
PHYS 15200 - Mechanics Cr. 5.
PHYS 25100 - Heat, Electricity, and Optics Cr. 5.
PHYS 31000 - Intermediate Mechanics Cr. 4.
PHYS 33000 - Intermediate Electricity and Magnetism Cr. 3.
PHYS 34200 - Modern Physics Cr. 3.
PHYS 34300 - Modern Physics Laboratory Cr. 1.

Spanish Teaching Minor (38 credits)

SPAN S111 - Elementary Spanish I Cr. 4.
SPAN S112 - Elementary Spanish II Cr. 4.
SPAN S203 - Second-Year Spanish I Cr. 3.
SPAN S204 - Second-Year Spanish II Cr. 3.
SPAN S275 - Hispanic Culture and Conversation Cr. 3.
SPAN S301 - The Hispanic World I Cr. 3.
SPAN S302 - The Hispanic World II Cr. 3.
SPAN S311 - Spanish Grammar Cr. 3.
SPAN S312 - Written Composition in Spanish Cr. 3.
SPAN S317 - Spanish Conversation and Diction Cr. 3.
SPAN S488 - Spanish for Teachers Cr. 3.

One of the following: Credits: 3

SPAN S411 - Spain: The Cultural Context Cr. 3.
SPAN S412 - Spanish America: The Cultural Context Cr. 3.

SPAN S413 - Hispanic Culture in the U.S. Cr. 3.

Theatre Teaching Minor (24 credits)

THTR electives Credits: 6
THTR 13400 - Fundamentals of Performance Cr. 3.
THTR 13800 - Acting I Cr. 3.
THTR 20100 - Theatre Appreciation Cr. 3.
THTR 26100 - Introduction to Theatrical Design Cr. 3.
THTR 28400 - Textual Analysis Cr. 3.

One of the following: Credits: 3

THTR 47000 - Theatre and Society I Cr. 3.
THTR 47100 - Theatre and Society II Cr. 3.

Sociology (Social Studies) Teacher Certification

You may be certified as a teacher of social studies after fulfilling all requirements for the B.a. with a major in sociology and all requirements for teacher certification. Full information on teacher-certification requirements is available from the School of Education.

Prior to your junior year, the School of Education requires that you successfully complete EDUA F300, EDUC W200/M101, and EDUC K201 and the Pre-Professional Skills Test (PPST) before admission to the teacher education program. The PRAXIS II specialty Area Exam must be completed before or during the student-teaching semester, normally in your senior year.

Theatre Teaching Minor

Program: Minor
Department of Theatre
College of Visual and Performing Arts

Williams Theatre 128 ~ 260-481-6551 ~ www.ipfw.edu/vpa/theatre

A theatre-teaching minor may be earned by completing the following courses and earning a grade of C or better in each required theatre course:

Program Requirements

Additional theatre course Credits: 6
THTR 13400 - Fundamentals of Performance Cr. 3.
THTR 13800 - Acting I Cr. 3.
THTR 20100 - Theatre Appreciation Cr. 3.
THTR 26100 - Introduction to Theatrical Design Cr. 3.
THTR 28400 - Textual Analysis Cr. 3.

One of the following:

THTR 47000 - Theatre and Society I Cr. 3.
THTR 47100 - Theatre and Society II Cr. 3.

Total Credits: 24

Transfer Program

Agriculture (A.S.)

Program: Transfer Program
College of Arts and Sciences

Science Building G56 ~ 260-481-6304

At IPFW, you can complete the first two years of most of the 47 Bachelor of Science programs in agriculture and forestry, the two-year preveterinary program, up to two semesters of the forestry and natural resources programs, two semesters of the preagricultural and biological engineering program, and three semesters of an associate degree program in agriculture. All agriculture degrees must be completed at the West Lafayette campus of Purdue University. The forestry and natural resources and preveterinary programs are listed alphabetically later in this part of the *Bulletin.*

All degree programs in agriculture provide balanced curricula in computer science, mathematics, physical sciences, biological sciences, communication, social sciences, humanities, international understanding or emphasis, and business, plus technical preparation in the selected area of specialization. These programs recognize the need for graduates who are prepared to function effectively in the highly technical world of modern agriculture.

The Purdue University School of Agriculture is one of the nation's highest-ranked and most-prestigious institutions of agricultural teaching, research, extension, and international programs. The West Lafayette faculty annually prepares more than 2,000 undergraduate and 500 graduate students for careers in the world's food production and distribution systems.

The IPFW agriculture program coordinator will assist you with processing intercampus transfer forms and with arranging affiliation with the appropriate West Lafayette counseling coordinator for the degree program selected. For a listing of degree programs available and additional details about all programs, you should obtain a current Bulletin of the School of Agriculture from the IPFW agriculture dean's program coordinator.

The partial requirements stated below can be completed at IPFW and apply in most B.S. programs in agriculture. Because of professional objectives and accreditation requirements, significant variations exist in some programs such as agricultural and biological engineering, biochemistry, forestry and natural resources, and landscape architecture. Students selecting these options may be able to complete only one or two semesters at IPFW.

It is highly recommended that you keep in contact with the agriculture program coordinator to remain up to date on any changes in the course requirements and to make sure that the requirements of your particular major are being met.

The associate degree with a major in agriculture, which requires at least one semester of full-time study at the West Lafayette campus,helps students who must withdraw before they can finish a Bachelor of Science. You may take, at most, three semesters at IPFW. You may begin with the general course work for agriculture, preforestry, or preveterinary medicine. Within the program, you must complete a specialization in one of the following areas: agricultural economics, agricultural systems management, agronomy, animal sciences, general agriculture, or horticulture. You work out the details of your career (final) semester with the West Lafayette advisor for the specialization you select; it is desirable to establish contact with this advisor before your final semester at IPFW.

To receive the associate degree, you must:

Complete at least half the credits for the Bachelor of Science for your declared option (64–65 credits).

Earn a minimum graduation GPA of 2.00 or higher.

Limit the number of elective credits taken under the pass/not-pass option to 12.

Meet the minimum requirements listed below. For course selection at IPFW and assistance with transferring to the West Lafayette campus, you should see the agriculture program coordinator at IPFW.

The assumption is that you will begin with courses that apply to the requirements for general agriculture, preforestry, or preveterinary medicine described in this Bulletin, but if you later choose the A.S. alternative, you must meet the following minimum requirements:

Mathematics and Basic Sciences

Credits in calculus or statistics Credits: 3

Credits in other mathematics and basic sciences Credits: 12

Written and Oral Communication

Credits in written communication Credits: 6

Credits in oral communication Credits: 3

Broadening Electives

Credits in economics Credits: 3

Credits in humanities or social sciences Credits: 3

Departmental Requirements and Electives

Credits in departmental requirements and electives, at least 18 of which must be earned in School of Agriculture courses Credits: 35

Total Credits: 65

Agriculture (B.S.)

Program: Transfer Programs
College of Arts and Sciences

Science Building G56 ~ 260-481-6304

At IPFW, you can complete the first two years of most of the 47 Bachelor of Science programs in agriculture and forestry, the two-year preveterinary program, up to two semesters of the forestry and natural resources programs, two semesters of the preagricultural and biological engineering program, and three semesters of an associate degree program in agriculture. All agriculture degrees must be completed at the West Lafayette campus of Purdue University. The forestry and natural resources and preveterinary programs are listed alphabetically later in this part of the *Bulletin.*

All degree programs in agriculture provide balanced curricula in computer science, mathematics, physical sciences, biological sciences, communication, social sciences, humanities, international understanding or emphasis, and business,

plus technical preparation in the selected area of specialization. These programs recognize the need for graduates who are prepared to function effectively in the highly technical world of modern agriculture.

The Purdue University School of Agriculture is one of the nation's highest-ranked and most-prestigious institutions of agricultural teaching, research, extension, and international programs. The West Lafayette faculty annually prepares more than 2,000 undergraduate and 500 graduate students for careers in the world's food production and distribution systems.

The IPFW agriculture program coordinator will assist you with processing intercampus transfer forms and with arranging affiliation with the appropriate West Lafayette counseling coordinator for the degree program selected. For a listing of degree programs available and additional details about all programs, you should obtain a current Bulletin of the School of Agriculture from the IPFW agriculture dean's program coordinator.

The partial requirements stated below can be completed at IPFW and apply in most B.S. programs in agriculture. Because of professional objectives and accreditation requirements, significant variations exist in some programs such as agricultural and biological engineering, biochemistry, forestry and natural resources, and landscape architecture. Students selecting these options may be able to complete only one or two semesters at IPFW.

It is highly recommended that you keep in contact with the agriculture program coordinator to remain up to date on any changes in the course requirements and to make sure that the requirements of your particular major are being met.

You may complete the following courses at IPFW:

Mathematics and Basic Sciences

Credits in computer science Credits: 3
Additional credits in mathematics and basic science Credits: 5
AGR 10100 - Introduction to Agriculture and Purdue Cr. 0.5.
BIOL 10800 - Biology of Plants Cr. 4.
BIOL 10900 - Biology of Animals Cr. 4.
CHM 11100 - General Chemistry Cr. 3.
CHM 11200 - General Chemistry Cr. 3.
MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.
STAT 30100 - Elementary Statistical Methods I Cr. 3.

Written and Speech Communication

Credits in an additional oral or written communication course Credits: 3
Credits in English composition Credits: 6
COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
ENG W233 - Intermediate Expository Writing Cr. 3.

Broadening Electives

Credits from an approved list of international emphasis electives Credits: 0–3
Credits from the following social sciences: anthropology, economics, education (limited courses), political science, psychology, and sociology Credits: 3–12
Credits from the following humanities: education (limited courses), English literature (limited courses), foreign language and literatures, history, philosophy, and fine arts Credits: 6–15
ECON E201 - Introduction to Microeconomics Cr. 3.

Agriculture Courses Offered at IPFW

(See your advisor about appropriate selections.)

- AGR 10100 - Introduction to Agriculture and Purdue Cr. 0.5.
- ANSC 10100 - Animal Agriculture Cr. 3.
- ANSC 22100 - Principles of Animal Nutrition Cr. 3.
- ENTM 20600 - General Applied Entomology Cr. 2.
- ENTM 20700 - General Applied Entomology Laboratory Cr. 1.
- FNR 10300 - Introduction to Environmental Conservation Cr. 3.
- HORT 10100 - Fundamentals of Horticulture Cr. 3.

Consumer and Family Sciences

Program: Transfer Program
College of Health and Human Services

Neff Hall 330 ~ 260-481-6562 ~ www.ipfw.edu/cfs

At IPFW, you may complete approximately two years toward the Bachelor of Science options offered by the College of Consumer and Family Sciences at the West Lafayette campus of Purdue University. Majors are in child development and family studies, consumer and family sciences education, foods and nutrition, and consumer sciences retailing.

These degree programs must be completed at West Lafayette. IPFW also offers a B.S. and an A.S. in hospitality areas (see description later in this section).

The details of your general-education requirements and the courses in your field of specialization are determined by your option selection. For this information, you should review the Bulletin of the Purdue University West Lafayette College of Consumer and Family Sciences, www.cfs.purdue.edu. Consult the IPFW Chair of Consumer and Family Sciences to select the appropriate courses for your B.S. option.

Cytotechnology

Transfer Opportunity to IUPUI
Student Success Center
College of Health and Human Services

Neff Hall 120 ~ 260-481-4187 ~ www.ipfw.edu/hhs/ahtp/programs/cytotechnology.shtml

At IPFW you may complete three years towards the Bachelor of Science in cytotechnology. You must apply and be admitted to the Cytotechnology Program at Indiana University-Purdue University Indianapolis (IUPUI) to complete the degree. Completion of IPFW course work does not guarantee admission to the IUPUI program. Graduates receive their degree from the IU School of Medicine.

Overview - Cytotechnology is a medical laboratory specialty in which microscopic examinations are performed on cell samples from the human body.

Prerequisite Courses – Prior to entering IUPUI's Cytotechnology Program, the student must complete the minimum prerequisites. These prerequisites may be completed at IPFW. Students should consult with an IPFW allied health sciences advisor for appropriate courses and semester sequencing.

Suggested Electives - Biology electives: microbiology, embryology, genetics, animal cell physiology, immunology, and cell biology. With the approval of IUPUI's cytotechnology program director other biology courses may be substituted. Students must earn a total of 25 credit hours in biology, including BIOL 10900 or 11900, BIOL 21500, 21600, and 3 upper level courses that include labs. Other electives: art appreciation, medical terminology, statistics, computer science/technology, supervision (OLS), medical microbiology, biochemistry, endocrinology, parasitology, virology, cytogenetics, organic chemistry, physics, and mathematics.

IUPUI Admission Requirements

Total Number of Prerequisite Credit Hours – 90   These may be completed at IPFW.

Limitations of Course Work - Biology credits earned more than seven years before application must be updated by taking 3 additional credit hours related to cell biology within a period of time not to exceed 12 months before admission. Remedial courses will not fulfill prerequisite hours.

Class Size - Eight each fall semester

Criteria Used for Selection of Class - Cumulative grade point average, biology grade point average, interview

Application Deadline - December 1 of the year prior to desired entry

Minimum Cumulative Grade Point Average - 2.5 on a 4.0 scale. This requirement is applied at the time of program application and must be maintained.

Minimum Specific Grade Point Average – 2.5 on a 4.0 scale for all biology course work. This requirement is applied at the time of program application and must be maintained.

Minimum Grade Requirement in a Stated Prerequisite Course – C (2.0 on a 4.0 scale)

Interview – Qualified applicants must participate in an interview. Interviews are conducted between November and January.

Technical Standards - See IUPUI Health Professions Programs policy.

Clinical Observation/Volunteer Experience - While such experience is not required, it is very helpful in making a career choice.

The details of your prerequisite course work should be discussed with an IPFW allied health sciences advisor. You are also encouraged to consult an advisor at the IUPUI campus to discuss the degree by calling (317)278-4752 or by e-mail at askhpp@iupui.edu. The most current program information is found at http://msa.iusm.iu.edu/hpp/.

At IPFW you may complete the following courses:

CHM 11500 - General Chemistry Cr. 4.
CHM 11600 - General Chemistry Cr. 4.
ENG W131 - Elementary Composition I Cr. 3.
ENG W233 - Intermediate Expository Writing Cr. 3.

Choose one of the following Credits: 3

COM 11400 - Fundamentals of Speech Communication Cr. 3.
COM 21200 - Approaches to the Study of Interpersonal Communication Cr. 3.

Choose one of the following Credits: 3-5

MA 15300 - Algebra and Trigonometry I Cr. 3.
MA 15900 - Precalculus Cr. 5.
 or higher-level math course

Choose one of the following Credits: 4

BIOL 10900 - Biology of Animals Cr. 4.
BIOL 11900 - Principles of Structure and Function Cr. 4.

Choose 3 of the following biology courses with labs Credits: 11-12

BIOL 21800 - Genetics and Molecular Biology Cr. 4.
BIOL 31500 - Developmental Anatomy Cr. 4.
BIOL 33400 - Clinical Pathophysiology Cr. 4.
BIOL 53700 - Immunobiology Cr. 3.

Or select

Cell Biology lecture and lab

BIOL 38100 - Cell Biology Cr. 3.
BIOL 38200 - Laboratory in Cell Biology Cr. 1.

Or select

Animal Physiology lecture and lab

Or select one of the following:

Microbiology

BIOL 22000 - Microbiology for Allied Health Professionals Cr. 4.
 or
BIOL 43700 - General Microbiology Cr. 4.

Choose one of the following sequences Credits: 8

BIOL 20300 - Human Anatomy and Physiology Cr. 4.
 and
BIOL 20400 - Human Anatomy and Physiology Cr. 4.

Or select:

BIOL 21500 - Basic Human Anatomy Cr. 4.
 and
BIOL 21600 - Basic Mammalian Physiology Cr. 4.

Electives:

Humanities elective: Cr. 3
Social/Behavioral science electives preferably psychology and sociology: Cr. 6
General electives to bring total credits to 90

Total Credits: 90

Forestry and Natural Resources

Program: Transfer Program
College of Arts and Sciences

Science Building G56 ~ 260-481-6304

Admission

At IPFW you may complete credits toward one of the five majors — fisheries and aquatic sciences, forestry, natural resources, wildlife, and wood products manufacturing technology — offered by the Department of Forestry and Natural Resources. You must transfer to Purdue University West Lafayette campus for second-year courses in order to have prerequisites for the summer practicum between the sophomore and junior years. You are encouraged to contact a West Lafayette advisor to confirm course selections. The following courses encompass most of the first-year requirements of these majors.

Program Requirements

Credits in one of the following humanities and social sciences: anthropology; economics; fine arts, music, and theatre (history and appreciation only); foreign language; history; literature; philosophy; political science; psychology; sociology; speech communication Credits: 6

AGR 10100 - Introduction to Agriculture and Purdue Cr. 0.5.
AGRY 255 - Soil Science Cr. 3.
BIOL 10800 - Biology of Plants Cr. 4.
BIOL 10900 - Biology of Animals Cr. 4.
CHM 11100 - General Chemistry Cr. 3.
CHM 11200 - General Chemistry Cr. 3.
COM 11400 - Fundamentals of Speech Communication Cr. 3.
ECON E201 - Introduction to Microeconomics Cr. 3.
FNR 10300 - Introduction to Environmental Conservation Cr. 3.
MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.
MA 23000 - Calculus for the Managerial, Social, and Biological Sciences II Cr. 3.
STAT 30100 - Elementary Statistical Methods I Cr. 3.

Credits in English composition Credits: 6

ENG W131 - Elementary Composition I Cr. 3.
ENG W233 - Intermediate Expository Writing Cr. 3.

Total Credits: 48

Health Information Administration

Transfer Opportunity to IUPUI
Student Success Center
College of Health and Human Services

Neff Hall 120 ~ 260-481-4187 ~ www.ipfw.edu/hhs/ahtp/programs/health.shtml

At IPFW you may complete 55 credit hours toward the Bachelor of Science in health information administration. You must be admitted to the Health Information Administration Program at Indiana University-Purdue University Indianapolis (IUPUI) to complete the degree. Completion of IPFW course work does not guarantee admission to the IUPUI program. Graduates receive their degree from the IUPUI School of Informatics.

Overview - Health information professionals play a critical role in maintaining, collecting, interpreting, analyzing and protecting data that healthcare providers rely on for research and delivery of quality care.

Prerequisite Courses - Prior to entering IUPUI's Health Information Administration Program, the student must complete at least 56 prerequisite credit hours. All but six of the total prerequisite hours may be completed at IPFW. Two additional prerequisite courses (CSCI N207 and HIA M300) are taken online through IUPUI. Students should consult with an IPFW allied health sciences advisor for appropriate courses and semester sequencing.

Suggested Electives - General electives as needed to complete 61 credit hours. These electives may include management information systems, supervisory management, methods of employee training, computer sciences, research methods, interpersonal communications, Greek and Latin medical terms, and foreign languages.

IUPUI Admission Requirements

Total Number of Prerequisite Credit Hours – 61   Fifty-five prerequisite hours may be completed at IPFW. Six prerequisite hours are offered online through IUPUI.

Limitations of Course Work - Remedial course work will not qualify as prerequisite credit hours.

Criteria Used for Selection of Class - Completion of prerequisite courses, grade point average, interview

Application Deadline - November 15 of the year prior to desired entry.

Minimum Cumulative Grade Point Average - 2.5 on a 4.0 scale. This requirement is applied at the time of program application and must be maintained. Grades in remedial courses are included in the cumulative grade point average.

Minimum Grade Requirement in a Stated Prerequisite Course - C (2.0 on a 4.0 scale) in anatomy, physiology, computer science, analytic skills/quantitative methods, business administration, and organization/management. Prerequisite courses in anatomy, physiology, computer science, and statistics must be completed prior to enrollment in the program.

Interview - Qualified applicants must participate in an interview.

Clinical Observation/Volunteer Experience - While such experience is not required, it is helpful in making a career choice.

Delivery Options - The professional program is offered via distance learning or classroom delivery.

The details of your prerequisite course work should be discussed with an IPFW allied health sciences advisor. You may also consult an advisor at the IUPUI campus to discuss the degree or delivery options by calling (317)278-7686 or by e-mail at mrondeau@iupui.edu. The most current program information is found at http://informatics.iupui.edu/academics/health.

At IPFW you may complete the following courses:

BUS A201 - Principles of Financial Accounting Cr. 3.
BUS W100 - Principles of Business Administration Cr. 3.
COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
MA 15300 - Algebra and Trigonometry I Cr. 3.
NUR 10600 - Medical Terminology Cr. 3.
OLS 26800 - Elements of Law Cr. 3.
OLS 28000 - Computer Applications for Supervisors Cr. 3.
ETCS 10600 - Introduction to Computers Cr. 3.

Choose one of the following Credits: 3

ENG W232 - Introduction to Business Writing Cr. 3.
ENG W233 - Intermediate Expository Writing Cr. 3.
ENG W234 - Technical Report Writing Cr. 3.
ENG W331 - Business and Administrative Writing Cr. 3.

Choose one of the following Credits: 3

PSY 20100 - Introduction to Statistics in Psychology Cr. 3.
SPEA K300 - Statistical Techniques Cr. 3.
STAT 24000 - Statistical Methods for Biology Cr. 3.
STAT 30100 - Elementary Statistical Methods I Cr. 3.

One of the following sequences Credits: 8

BIOL 20300 - Human Anatomy and Physiology Cr. 4.
    and
BIOL 20400 - Human Anatomy and Physiology Cr. 4.

Or select:

BIOL 21500 - Basic Human Anatomy Cr. 4.
    and
BIOL 21600 - Basic Mammalian Physiology Cr. 4.

Choose one of the following Credits: 3

PHIL 11100 - Ethics Cr. 3.
PHIL 31200 - Medical Ethics Cr. 3.
PHIL 32600 - Business Ethics Cr. 3.

Choose one of the following Credits: 3

OLS 25200 - Human Relations in Organizations Cr. 3.
OLS 27400 - Applied Leadership Cr. 3.
SPEA H371 - Human Resource Management in Healthcare Facilities Cr. 3.

Choose one of the following Credits: 3

CS 30600 - Computers in Society Cr. 3.
PSY 12000 - Elementary Psychology Cr. 3.
SOC S161 - Principles of Sociology Cr. 3.
SOC S163 - Social Problems Cr. 3.

Electives Credits: 5

Humanities elective: Cr. 3
General elective: Cr. 2

Total Credits: 55

Two additional prerequisites for this program available online through IUPUI:

CSCI N207 - Data Analysis Using Spreadsheets Cr. 3
HIA M300 - Database Design for HIA Cr. 3

Journalism Transfer Program

Program: Transfer Program
College of Arts and Sciences

Neff Hall 343 ~ 260-481-6685 ~ *www.ipfw.edu/jour/*

At IPFW, you may complete two years of course work toward the Bachelor of Arts offered by the Indiana University School of Journalism at both the Bloomington and Indianapolis campuses. While at IPFW, you may take courses in the fundamental-skills requirements in writing, mathematics, and foreign language; distribution requirements in arts and humanities, natural and mathematical sciences, and social and behavioral sciences; and a maximum of 12 credits in journalism core courses or electives.

Program Requirements

JOUR J200 - Reporting, Writing and Editing I Cr. 3.
JOUR J210 - Visual Communication Cr. 3.
JOUR J300 - Communications Law Cr. 3.

One of following Credits: 3

JOUR C200 - Mass Communications Cr. 3.
JOUR J110 - Foundations of Journalism and Mass Communication Cr. 3.

Total Credits: 12

Notes

Internships and special course approvals are arranged through the IPFW journalism coordinator. Scholarships are available for declared journalism majors for the freshman year at IPFW and for subsequent years throughout the IU system. Applications are available in January.

For further information about journalism requirements and opportunities at IPFW, consult the *Bulletin* of the IU School of Journalism and course descriptions appearing in this *Bulletin*.

Medical Imaging Technology

Transfer Opportunity to IUPUI
Student Success Center
College of Health and Human Services

Neff Hall 120 ~ 260-481-4187 ~ www.ipfw.edu/hhs/ahtp/programs/medical.shtml

At IPFW you may complete all but 32 credit hours toward the Bachelor of Science in medical imaging technology. You must apply and be admitted to the Medical Imaging Technology Program at Indiana University-Purdue University Indianapolis (IUPUI) to complete the degree. Completion of IPFW course work does not guarantee admission to the IUPUI program. Graduates receive their degree from the IU School of Medicine.

Overview - A medical imaging technologist is a skilled radiographer qualified to provide patient service in interventional procedures, computed tomography, magnetic resonance imaging, or ultrasonography.

Prerequisite Courses – Prior to entering IUPUI's Medical Imaging Technology Program, the student must complete the minimum prerequisites, including an Associate of Science in radiography or its equivalent. These prerequisites may be completed at IPFW. Students should consult with an IPFW allied health sciences advisor for appropriate courses and semester sequencing.

Radiography - Students who earn an Associate of Science in radiography through IPFW will graduate with 60 credit hours in radiography. IUPUI allows entry to the medical imaging technology program with a minimum of 40 college credit hours in radiography.

Suggested Electives– Students must earn a total of 15 credit hours in physical and biological sciences. To complete a minimum of 122 credit hours of academic work for graduation, additional electives may be required.

IUPUI Admission Requirements

Class Size - Based on the availability of clinical education sites for each major area.

Criteria Used for Selection of Class - Evidence of registration by the American Registry of Radiologic Technologists (ARRT), cumulative GPA weighted 40%, radiologic technology GPA weighted 20%, clinical radiologic technology GPA weighted 20%, science/math GPA weighted 20%.

Application Deadline - November 15 of the year prior to desired entry.

Minimum Cumulative Grade Point Average - 2.8 on a 4.0 scale at the time of application. Grades from all college courses taken, including remedial courses and courses that do not meet prerequisite requirements, are considered when calculating the minimum cumulative grade point average.

Minimum Specific Grade Point Average – 3.0 on a 4.0 scale for all radiologic technology course work. 2.5 on a 4.0 scale for all physical and biological sciences.

Minimum Grade Requirement in a Stated Prerequisite Course - C (2.0 on a 4.0 scale)

Technical Standards - See IUPUI Health Professions Programs policy.

Interview - An interview is not required.

The details of your prerequisite course work should be discussed with an IPFW allied health sciences advisor. You are also encouraged to consult with an advisor at the IUPUI campus to discuss the degree by calling (317)278-4752 or by e-mail at askhpp@iupui.edu. The most current program information is found at http://msa.iusm.iu.edu/hpp/.

At IPFW you may complete the following courses:

ENG W131 - Elementary Composition I Cr. 3.
ENG W233 - Intermediate Expository Writing Cr. 3.
PSY 12000 - Elementary Psychology Cr. 3.

Choose one of the following Credits: 3

COM 11400 - Fundamentals of Speech Communication Cr. 3.
COM 21200 - Approaches to the Study of Interpersonal Communication Cr. 3.

Choose one of the following Credits: 3

MA 15300 - Algebra and Trigonometry I Cr. 3.
MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.

Choose one of the following Credits: 3

STAT 30100 - Elementary Statistical Methods I Cr. 3.
PSY 20100 - Introduction to Statistics in Psychology Cr. 3.

Choose one of the following Credits: 3-4

CHM 11100 - General Chemistry Cr. 3.
CHM 11500 - General Chemistry Cr. 4.

Choose one of the following Credits: 1

Consult your advisor about satisfying this requirement.

AHLT R185 - Medical Terminology Cr. 1.
BIOL 10500 - Medical Terminology Cr. 1.

Choose one of the following Credits: 4-5

PHYS 20100 - General Physics I Cr. 5.
PHYS 21800 - General Physics Cr. 4.
PHYS 22000 - General Physics Cr. 4.

Choose one of the following sequences Credits: 8

BIOL 20300 - Human Anatomy and Physiology Cr. 4.
and
BIOL 20400 - Human Anatomy and Physiology Cr. 4.

Or select:

BIOL 21500 - Basic Human Anatomy Cr. 4.
and
BIOL 21600 - Basic Mammalian Physiology Cr. 4.

Electives To Be Taken Prior To Graduation Credits: 6

Humanities elective: Cr. 3
Social/Behavioral Science elective: Cr. 3

Radiography Professional Program Credits: 60

Total Credits: 93-102

Nuclear Medicine

Transfer Opportunity to IUPUI
Student Success Center
College of Health and Human Services

Neff Hall 120 ~ 260-481-4187 ~ www.ipfw.edu/hhs/ahtp/programs/nuclear.shtml

At IPFW you may complete two years toward the Bachelor of Science in nuclear medicine technology. You must apply and be admitted to the Nuclear Medicine Technology Program at Indiana University-Purdue University Indianapolis (IUPUI) to complete the degree. Completion of IPFW course work does not guarantee admission to the IUPUI program. Graduates receive their degree from the IU School of Medicine.

Overview - Nuclear medicine is a medical specialty in which the nuclear properties of radioactive materials are used for diagnosis and treatment of disease.

Prerequisite Courses - Prior to entering IUPUI's Nuclear Medicine Technology Program, the student must complete the minimum prerequisites. These prerequisites may be completed at IPFW. Students should consult with an IPFW allied health sciences advisor for appropriate courses and semester sequencing.

Suggested Electives - Math/science elective: natural, mathematical or computer science, first aid, nature of cancer, and nutrition. IUPUI allows students to replace MA 15300 and MA 15400 with four credit hours of advanced calculus. Students must earn a total of 20 credit hours in physical and biological sciences.

IUPUI Admission Requirements

Total Number of Prerequisite Credit Hours - 60   These may be completed at IPFW.

Class size - Seven each summer session II (late June).

Criteria Used for Selection of Class - Cumulative grade point average, mathematics and science grade point average, interview.

Application Deadline - November 15 of the year prior to desired entry.

Minimum Cumulative Grade Point Average - 2.8 on a 4.0 scale. This requirement is applied at the time of program application and must be maintained. The grades from all college courses taken, including remedial courses and courses that do not meet prerequisite requirements, are considered when calculating the minimum cumulative grade point average.

Minimum Specific Grade Point Average - 2.5 on a 4.0 scale for life and physical science course work. This requirement is applied at the time of program application and must be maintained. The grades from all college life and physical sciences courses taken, including remedial courses and courses that do not meet prerequisite requirements, are considered when calculating the minimum specific grade point average.

Minimum Grade Requirement in a Stated Prerequisite Course - C (2.0 on a 4.0 scale) or a composite grade for a two-course lecture/lab sequence.

Technical Standards - See IUPUI Health Professions Programs policy.

Interview - Qualified applicants must participate in an interview. Interviews are conducted in January or early February.

Clinical Observation - Applicants must observe in a nuclear medicine facility before the admission interview.

Additional Application Requirement - Applicant must complete and submit a Pre-Interview Questionnaire.

The details of your prerequisite course work should be discussed with an IPFW allied health sciences advisor. You are also encouraged to consult an advisor at the IUPUI campus to discuss the degree by calling (317)278-4752 or by e-mail at askhpp@iupui.edu. The most current program information is found at http://msa.iusm.iu.edu/hpp/.

At IPFW you may complete the following courses:

BIOL 10500 - Medical Terminology Cr. 1.
ENG W131 - Elementary Composition I Cr. 3.
ENG W233 - Intermediate Expository Writing Cr. 3.
PSY 12000 - Elementary Psychology Cr. 3.
ETCS 10600 - Introduction to Computers Cr. 3.

Choose one of the following Credits: 3

COM 11400 - Fundamentals of Speech Communication Cr. 3.
COM 21200 - Approaches to the Study of Interpersonal Communication Cr. 3.

Choose one of the following Credits: 5-6

MA 15900 - Precalculus Cr. 5.

Or select:

MA 15300 - Algebra and Trigonometry I Cr. 3.
and

MA 15400 - Algebra and Trigonometry II Cr. 3.

Choose one of the following sequences Credits: 8

BIOL 20300 - Human Anatomy and Physiology Cr. 4.
    and
BIOL 20400 - Human Anatomy and Physiology Cr. 4.

Or select:

BIOL 21500 - Basic Human Anatomy Cr. 4.
    and
BIOL 21600 - Basic Mammalian Physiology Cr. 4.

Choose one of the following sequences Credits: 6-8

CHM 11100 - General Chemistry Cr. 3.
    and
CHM 11200 - General Chemistry Cr. 3.

Or select:

CHM 11500 - General Chemistry Cr. 4.
    and
CHM 11600 - General Chemistry Cr. 4.

Choose one of the following Credits: 3

STAT 30100 - Elementary Statistical Methods I Cr. 3.
PSY 20100 - Introduction to Statistics in Psychology Cr. 3.

Choose one of the following Credits: 3-5

PHYS 13100 - Concepts in Physics I Cr. 3.
PHYS 20100 - General Physics I Cr. 5.
PHYS 21800 - General Physics Cr. 4.
PHYS 22000 - General Physics Cr. 4.

Electives:

Humanities elective Cr. 3
Social/Behavioral science elective Cr. 3
Electives to bring total credits in physical and biological science to a minimum of 20
General electives to bring total credits to 60

Total Credits: 60

Occupational Therapy

Transfer Opportunity to IUPUI
Student Success Center
College of Health and Human Services

Neff Hall 120 ~ 260-481-4187 ~ http://www.ipfw.edu/hhs/ahtp/programs/occupational.shtml

The entry-to-practice degree for the occupational therapy profession is now the Master of Science in occupational therapy, a graduate degree. A baccalaureate degree is required to gain entry to the program. At IPFW you may earn any baccalaureate degree and then apply to the Occupational Therapy Program offered by the School of Health and Rehabilitation Sciences at Indiana University-Purdue University Indianapolis (IUPUI). Completion of a baccalaureate degree and prerequisites does not guarantee admission to the IUPUI program.

Overview - Occupational therapy is the health and rehabilitation profession that focuses on maximizing a person's ability to participate in life independently.

Prerequisite Courses - Prior to entering IUPUI's Occupational Therapy Program, students must complete specific prerequisite courses in addition to earning a baccalaureate degree. These prerequisites may be completed at IPFW. Students should consult with an IPFW allied health sciences advisor for appropriate courses and semester sequencing.

IUPUI Admission Requirements

Limitations on Course Work - Anatomy, physiology, and statistics prerequisites must be taken within seven years of entry.

Class size - 36

Criteria Used for Selection of Class - Cumulative grade point average (GPA) weighted 40%, prerequisite course work GPA weighted 60%. The total scores are then ranked.

Application Deadline - Applications are available online through IUPUI's occupational therapy website. Applications are accepted from August 1st through January 20th annually and are due in January of the year of desired entry. Program begins Summer Session II (late June).

Minimum Cumulative Grade Point Average - 3.0 on a 4.0 scale.

Minimum Prerequisite Grade Point Average - 3.0 on a 4.0 scale.

Minimum Grade Requirement in a Stated Prerequisite Course - C (2.0 on a 4.0 scale)

Application Policy - For applicants for whom English is not their native language, a minimum TOEFL score of 550 is required.

Technical Standards - Students are required to meet technical standards established by the School of Health and Rehabilitation Sciences. These standards are available from IUPUI upon request.

Clinical Observation - Students must observe occupational therapy practice in three settings for a total of 12 hours and present evidence of this experience. Therapists are often willing to let students observe or "shadow" them, but volunteering also meets this requirement. Students may obtain observation or volunteer hours at any facility that offers occupational therapy.

The details of your prerequisite course work should be discussed with an IPFW allied health sciences advisor. You are also encouraged to consult an advisor at the IUPUI campus to discuss the degree. Contact: Student Enrollment Services Coordinator for the School of Health and Rehabilitation Sciences by calling (317)274-7238. The most current program information is found at http://www.shrs.iupui.edu/occupational_therapy/.

Your undergraduate program must include the following:

At IPFW you may complete the following courses:

At IPFW you may complete a prerequisite baccalaureate degree (see above) and must also complete the following courses:

    PSY 35000 - Abnormal Psychology Cr. 3.
    PSY 36900 - Development Across the Lifespan Cr. 3.

Choose one of the following Credits: 3

    ECON E270 - Introduction to Statistical Theory in Economics and Business I Cr. 3.
    PSY 20100 - Introduction to Statistics in Psychology Cr. 3.
    SOC S351 - Social Statistics Cr. 3.
    SPEA K300 - Statistical Techniques Cr. 3.
    STAT 30100 - Elementary Statistical Methods I Cr. 3.

Choose one of the following Credits: 1-3

    BIOL 10500 - Medical Terminology Cr. 1.
    NUR 10600 - Medical Terminology Cr. 3.

Choose one of the following sequences Credits: 8

    BIOL 20300 - Human Anatomy and Physiology Cr. 4.
        and
    BIOL 20400 - Human Anatomy and Physiology Cr. 4.

Or select

    BIOL 21500 - Basic Human Anatomy Cr. 4.
        and
    BIOL 21600 - Basic Mammalian Physiology Cr. 4.

Total Credits: 18-20

Paramedic Sciences

Transfer Opportunity to IUPUI
Student Success Center
College of Health and Human Services

Neff Hall 120 ~ 260-481-4187 ~ www.ipfw.edu/hhs/ahtp/programs/paramedic.shtml

At IPFW you may complete one year toward the Associate of Science in paramedic science. You must apply and be admitted to the Paramedic Science Program at Indiana University-Purdue University Indianapolis (IUPUI) to complete the degree. Completion of IPFW course work does not guarantee admission to the IUPUI program. Graduates receive their degree from the IU School of Medicine.

Overview - Paramedics provide care to emergency patients in pre-hospital settings. They determine the nature and extent of victims' emergencies, immobilize fractures, supply intravenous therapy, and provide other life-saving interventions for the victims of acute illness or injury.

Prerequisite Courses – Prior to entering IUPUI's Paramedic Science Program, the student must complete the minimum prerequisites. Exclusive of emergency medical technologist (EMT) training, these prerequisites may be completed at IPFW. Students should consult with an IPFW allied health sciences advisor for appropriate courses and semester sequencing.

IUPUI Admission Requirements

Total Number of Prerequisite Credit Hours Exclusive of EMT Training - 23   These may be completed at IPFW. Twenty credit hours of prerequisites must be completed prior to entrance.

Limitations of Course Work - Remedial courses will not fulfill prerequisites or count as credit hours toward the degree.

Class Size - Ten students per cohort entering either spring or fall semester.

Criteria Used for Selection of Class - Grade point average, personal interview, EMT experience.

Application Deadline - October 1 of the year prior to desired spring semester entry. February 1 prior to desired fall semester entry.

Minimum Cumulative Grade Point Average - 2.3 on a 4.0 scale. This requirement is applied at the time of program application and must be maintained.

Minimum Grade Requirement in a Stated Prerequisite Course - C (2.0 on a 4.0 scale)

Certification Requirement - You must be an Indiana or nationally certified EMT with at least 20 hours of documented patient contact in an ambulance to apply to the program.

To Become an Emergency Medical Technologist - Take the EMT Basic Training (7.5 credit) course through Ivy Tech and pass the EMT credentialing exam or complete an EMT course through one of the many local hospitals or township fire departments and pass the EMT credentialing exam. For any questions regarding EMT course work at Ivy Tech Fort Wayne Campus, contact the Ivy Tech EMT Program Chair at (260)480-2087.

Technical Standards - See IUPUI Health Professions Programs policy.

Medical Requirements – All students are required to provide a current immunization record that indicates immunizations in hepatitis B, rubella, rubeola, mumps, PPD, tetanus, and chicken pox.

Interview - Qualified applicants must participate in an interview. Interviews are generally conducted in December for the spring cohort and March for the fall cohort.

Clinical Observation/Volunteer Experience - While such experience is not required, it is helpful in making a career choice.

The details of your prerequisite course work should be discussed with an IPFW allied health sciences advisor. You are also encouraged to consult an advisor at the IUPUI campus to discuss the degree by calling (317)278-4752 or by e-mail at askhpp@iupui.edu. The most current program information is found at http://msa.iusm.iu.edu/hpp/.

At IPFW you may complete the following courses:

ENG W131 - Elementary Composition I Cr. 3.
MA 11300 - Intermediate Algebra Cr. 3.
PSY 12000 - Elementary Psychology Cr. 3.
SOC S161 - Principles of Sociology Cr. 3.

Choose one of the following Credits: 3

COM 11400 - Fundamentals of Speech Communication Cr. 3.
COM 21200 - Approaches to the Study of Interpersonal Communication Cr. 3.

Choose one of the following sequences Credits: 8

BIOL 20300 - Human Anatomy and Physiology Cr. 4.
    and
BIOL 20400 - Human Anatomy and Physiology Cr. 4.

Or select:

BIOL 21500 - Basic Human Anatomy Cr. 4.
    and
BIOL 21600 - Basic Mammalian Physiology Cr. 4.

Total Credits: 23

Physical Therapy

Transfer Opportunity to IUPUI
Student Success Center
College of Health and Human Services
Neff Hall 120 ~ 260-481-4187 ~ www.ipfw.edu/hhs/ahtp/programs/physical.shtml

The entry-to-practice degree for the physical therapy profession is now the Doctor of Physical Therapy (D.P.T.), a graduate degree. A baccalaureate degree is required to gain entry to the program. At IPFW you may earn any baccalaureate degree and then apply to the Physical Therapy Program offered by the School of Health and Rehabilitation Sciences (SHRS) at Indiana University-Purdue University Indianapolis (IUPUI). Completion of a baccalaureate degree and prerequisites does not guarantee admission to the IUPUI program.

Overview - As members of the healthcare team, physical therapists help restore clients to normal functioning of the musculoskeletal and other systems through interventions utilizing therapeutic exercise, physical agents, and assistive devices.

Prerequisite Courses - Prior to entering IUPUI's Physical Therapy Program, students must complete specific prerequisite courses in addition to earning a baccalaureate degree. These prerequisites may be completed at IPFW. Students should consult with an IPFW allied health sciences advisor for appropriate courses and semester sequencing. Listed credit hours are minimums.

IUPUI Admission Requirements

Limitations of Course Work - Prerequisite courses in human anatomy, human physiology, chemistry, physics, and statistics must be completed within seven years of entry. The levels of anatomy, physiology, chemistry, and physics courses must be appropriate for science majors.

Class Size - 36

Criteria Used for Selection of Class - Admission is competitive and decisions will be made based upon cumulative grade point average (GPA) weighted 50%, GRE verbal score weighted 50%, completion of personal essay, and 16 observation hours in two different settings recorded on Generic Abilities Form. The applicants with the highest undergraduate cumulative GPA and verbal GRE scores are offered places in the program, which begins the following fall semester. Applicants ranked 37 to 71 will be given the opportunity to be placed upon a wait list (minimum of 35 slots) and will be considered should a place in the program become available.

Application Deadline – Applications may be submitted beginning August 1 and must be postmarked October 15 of the year prior to desired entry. Applications postmarked after October 15 will not be considered and fees will not be refunded.

Minimum Cumulative Grade Point Average – 3.2 on a 4.0 scale.

Minimum Specific Grade Point Average – 3.2 on a 4.0 scale for math and science course work, which includes grades earned in chemistry, physics, human anatomy, human physiology, and statistics.

Minimum Grade Requirement in a Stated Prerequisite Course - C (2.0 on a 4.0 scale)

Minimum Scores on Graduate Record Examination – 450 on each of verbal and quantitative measures. Test dates for the GRE scores provided must be within seven years of entry.

Application Criteria and Policies - At the time of application, applicants must have completed prerequisites with two or less remaining. Applicants with one or two course prerequisites in progress apply for contingent admission to begin classes in fall semester of the following calendar year. In addition, the applicant's baccalaureate degree must be completed by June 1, immediately prior to fall entry. NO WAIVERS OR EXCEPTIONS WILL BE GRANTED BY THE PHYSICAL THERAPY PROGRAM. Applicants who have previously been admitted to an entry-level physical therapy educational program and who then voluntarily or involuntarily leave such a program will not be considered eligible for admission into the Indiana University DPT program. Applicants placed on the wait list who are not accommodated in the class will be considered for admission to the following year's class. They must reapply during the following year's cycle and will compete for entry with that year's application cohort. For applicants for whom English is not their native language, a minimum TOEFL score of 650 is required at time of application. This policy is waived if the applicant has received an undergraduate degree from an accredited school in the United States by the time of entrance into the program.

Cardiopulmonary Resuscitation (CPR) Certification - Students must successfully complete Health Care Professional Level CPR Certification prior to entrance into the program. Certification must be maintained throughout the duration of the program.

Medical Terminology Proficiency - Students must demonstrate proficiency in medical terminology prior to entering the professional program. Proficiency can be demonstrated through formal course work, on-line instruction with certificate of completion, or self-study with departmental examination. Students will also need to be competent writers.

Technical Standards - Students are required to meet technical standards established by the School of Health & Rehabilitation Sciences. These standards are available from IUPUI upon request.

Medical Requirements - Basic immunizations as determined by IUPUI's Student Health Services must be completed by the first day of classes. Students must demonstrate proof of health insurance prior to entry into the program and must maintain health insurance throughout their enrollment.

Clinical Observation/Volunteer Experience - Applicants must complete observational, volunteer, or other work experiences in both hospital inpatient and outpatient physical therapy settings. Each experience must be the equivalent of one day, 8 hours. Each experience must be of sufficient length of time to enable the supervising physical therapist to adequately complete the IU DPT Program's Generic Abilities Assessment Form included as part of the application portfolio.

The details of your prerequisite course work should be discussed with an IPFW allied health sciences advisor. You are also encouraged to consult an advisor at the IUPUI campus to discuss the degree. Contact: Student Enrollment Services Coordinator for the School of Health & Rehabilitation Sciences by calling (317)274-7238. The most current program information is found at http://www.shrs.iupui.edu/physical_therapy/.

At IPFW you may complete the following courses:

CHM 11500 - General Chemistry Cr. 4.
CHM 11600 - General Chemistry Cr. 4.
PSY 12000 - Elementary Psychology Cr. 3.
PSY 36900 - Development Across the Lifespan Cr. 3.

Choose one of the following sequences Credits: 8-10

PHYS 20100 - General Physics I Cr. 5.
   and
PHYS 20200 - General Physics II Cr. 5.

Or select

PHYS 21800 - General Physics Cr. 4.
   and
PHYS 21900 - General Physics II Cr. 4.

Or select

PHYS 22000 - General Physics Cr. 4.
   and
PHYS 22100 - General Physics Cr. 4.

Choose one of the following sequences Credits: 8

Human Anatomy and Physiology I and II

BIOL 20300 - Human Anatomy and Physiology Cr. 4.
BIOL 20400 - Human Anatomy and Physiology Cr. 4.

Or select

Anatomy and Physiology I and II

BIOL 21500 - Basic Human Anatomy Cr. 4.
BIOL 21600 - Basic Mammalian Physiology Cr. 4.

Choose one of the following Credits: 3

ECON E270 - Introduction to Statistical Theory in Economics and Business I Cr. 3.

PSY 20100 - Introduction to Statistics in Psychology Cr. 3.
SOC S351 - Social Statistics Cr. 3.
SPEA K300 - Statistical Techniques Cr. 3.
STAT 30100 - Elementary Statistical Methods I Cr. 3.

Electives:

Humanities/Social sciences electives: Cr. 6

Total prerequisite credits to be included in a baccalaureate degree Credits: minimum 39

If you choose to satisfy the medical terminology proficiency through coursework, choose one of the following Credits: 1-3

BIOL 10500 - Medical Terminology Cr. 1.
NUR 10600 - Medical Terminology Cr. 3.

Prepharmacy

Program: Transfer Program
College of Arts and Sciences

Liberal Arts Building 153 ~ 260-481-6160

Because the School of Pharmacy and Pharmacal Sciences at the Purdue University West Lafayette campus does not admit first- or second-year students, you must complete at least 64 credits in the two-year prepharmacy program and apply for admission to the school prior to Jan. 1 of the second year. To complete the prepharmacy program at IPFW, you should apply for admission as a prepharmacy student in the College of Arts and Sciences and complete the requirements listed below. To be considered for admission to the West Lafayette program, you should have at least a B+ average for all courses. If you do not gain admission to the pharmacy school, you may transfer to another program at IPFW. A complete set of degree requirements is available from the School of Pharmacy at West Lafayette.

Program Requirements

Credits in approved electives Credits: Cr. 9
BIOL 10800 - Biology of Plants Cr. 4.
BIOL 10900 - Biology of Animals Cr. 4.
BIOL 21500 - Basic Human Anatomy Cr. 4.
BIOL 21600 - Basic Mammalian Physiology Cr. 4.
BIOL 22000 - Microbiology for Allied Health Professionals Cr. 4.
CHM 11500 - General Chemistry Cr. 4.
CHM 11600 - General Chemistry Cr. 4.
CHM 25400 - Organic Chemistry Laboratory Cr. 1.
CHM 25500 - Organic Chemistry Cr. 3.
CHM 25600 - Organic Chemistry Cr. 3.
CHM 25800 - Organic Chemistry Laboratory Cr. 1.
ECON E200 - Fundamentals of Economics Cr. 3.

ENG W131 - Elementary Composition I Cr. 3.
ENG W233 - Intermediate Expository Writing Cr. 3.
MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.
MA 23000 - Calculus for the Managerial, Social, and Biological Sciences II Cr. 3.
PHYS 22000 - General Physics Cr. 4.

Total Credits: 64

Preveterinary

Program: Transfer Program
College of Arts and Sciences

Science Building G56 ~ 260-481-6304

At IPFW, you may complete the four-semester preveterinary curriculum, which includes the minimum requirements for admission to the School of Veterinary Medicine at the West Lafayette campus of Purdue University.

If you do not gain admission to veterinary medicine, you may use the curriculum below as the basis for continued study toward a degree in the School of Agriculture at West Lafayette. Students should contact the agriculture dean's deputy early in their academic career to discuss degree options. By substitution of certain BIOL courses, you may pursue this option as a biology major and obtain the B.S. with a major in biology rather than in agriculture.

Program Requirements

You may complete the following courses at IPFW:

BIOL 11700 - Principles of Ecology and Evolution Cr. 4.
BIOL 11900 - Principles of Structure and Function Cr. 4.
BIOL 21700 - Intermediate Ecology Cr. 3.
BIOL 21800 - Genetics and Molecular Biology Cr. 4.
BIOL 21900 - Principles of Functional Biology Cr. 4.
CHM 11500 - General Chemistry Cr. 4.
CHM 11600 - General Chemistry Cr. 4.
CHM 25400 - Organic Chemistry Laboratory Cr. 1.
CHM 25500 - Organic Chemistry Cr. 3.
CHM 25600 - Organic Chemistry Cr. 3.
CHM 25800 - Organic Chemistry Laboratory Cr. 1.
CHM 53300 - Introductory Biochemistry Cr. 3.
COM 11400 - Fundamentals of Speech Communication Cr. 3.
MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.
MA 23000 - Calculus for the Managerial, Social, and Biological Sciences II Cr. 3.
PHYS 22000 - General Physics Cr. 4.
PHYS 22100 - General Physics Cr. 4.
STAT 30100 - Elementary Statistical Methods I Cr. 3.
VM 10200 - Careers in Veterinary Cr. 1.

Credits in an agriculture course Credits: 3

ANSC 10100 - Animal Agriculture Cr. 3.

ANSC 22100 - Principles of Animal Nutrition Cr. 3.
FNR 10300 - Introduction to Environmental Conservation Cr. 3.

Credits in English composition Credits: 6

ENG W131 - Elementary Composition I Cr. 3.
ENG W233 - Intermediate Expository Writing Cr. 3.

Credits from the following areas: Credits: 12

Anthropology
Communication
Economics
History
Fine arts, music, and theatre (history and appreciation only)
Foreign language
Literature
Philosophy
Political science
Psychology
Sociology

Total Credits: 82

Preveterinary Technology

Program: Transfer Program
College of Arts and Sciences

Science Building G56 ~ 260-481-6304

At IPFW, you may complete the four-semester preveterinary curriculum, which includes the minimum requirements for admission into the baccalaureate degree program in veterinary technology at the West Lafayette campus of Purdue University.

Also available are the associate degree program and a distance learning Web-based instruction program for veterinary technology, both administered through Purdue University West Lafayette. For information concerning admission to these programs, please visit this Web site: http://vet.vet.purdue.edu/vtdl/vtdlhome/.

The distance-learning program leads to an associate degree from Purdue University while taking all required courses either at the IPFW campus, via distance learning and Web instruction, or in collaboration with local designated clinical mentors and/or veterinarians in the surrounding counties.

Program Requirements

You may complete the following courses for the baccalaureate and associate degree programs at IPFW:

Nine credits for electives in the following areas: Credits: 9
    anthropology, communication, economics, history, philosophy, political science, psychology, sociology

ANSC 10100 - Animal Agriculture Cr. 3.
ANSC 22100 - Principles of Animal Nutrition Cr. 3.
BIOL 11700 - Principles of Ecology and Evolution Cr. 4.
BIOL 11900 - Principles of Structure and Function Cr. 4.
CHM 11100 - General Chemistry Cr. 3.
CHM 11200 - General Chemistry Cr. 3.
COM 11400 - Fundamentals of Speech Communication Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
ENG W233 - Intermediate Expository Writing Cr. 3.
MA 15300 - Algebra and Trigonometry I Cr. 3.
MA 15400 - Algebra and Trigonometry II Cr. 3.
VM 10200 - Careers in Veterinary Cr. 1.

Total credits available for transfer to Purdue University Programs: 45

Radiation Therapy

Transfer Opportunity to IUPUI
Student Success Center
College of Health and Human Services

Neff Hall 120 ~ 260-481-4187 ~ www.ipfw.edu/hhs/ahtp/programs/radiation.shtml

At IPFW you may complete two years toward the Bachelor of Science in radiation therapy. You must apply and be admitted to the Radiation Therapy Program at Indiana University-Purdue University Indianapolis (IUPUI) to complete the degree. Non-radiographers and radiographers may apply to the program. Non-radiographers are those who are not registered in radiography by the American Registry of Radiologic Technologists or who have not completed a radiography program accredited by the Joint Review Committee on Education in Radiologic Technology. Entry and program requirements vary depending on radiography background. Completion of IPFW course work does not guarantee admission to the IUPUI program. Graduates receive their degree from the IU School of Medicine.

Overview - Radiation therapy involves the use of ionizing radiation for the treatment of benign and malignant tumors.

Prerequisite Courses – Prior to entering IUPUI's Radiation Therapy Program, the student must complete the minimum prerequisites. These prerequisites may be completed at IPFW. Students should consult with an IPFW allied health sciences advisor for appropriate courses and semester sequencing.

Suggested Electives -The number of elective courses will differ for each student to complete a total of 50 credit hours of prerequisite course work. Additional electives may be required, before or during the professional program, to complete a minimum of 122 credit hours of academic course work for graduation.

IUPUI Admission Requirements

Criteria Used for Selection of Class - Admission to the Radiation Therapy Program is based on an admission index composed of cumulative grade point average, mathematics and science grade point average, prerequisite courses grade point average, interview.

Application Deadline - December 1 of the year prior to desired entry.

Minimum Prerequisite Grade Point Average - 2.5 on a 4.0 scale. This requirement is applied at the time of program application. Grades from remedial courses are not calculated in the grade point average of the prerequisite courses to determine the admission index.

Minimum Specific Grade Point Average - 2.3 on a 4.0 scale for math and science course work. **This** requirement is applied at the time of program application and must be maintained. Grades from remedial courses are not calculated in the mathematics and science grade point average to determine the admission index.

Minimum Grade Requirement in a Stated Prerequisite Course - C (2.0 on a 4.0 scale)

Interview - A personal interview is required. If the number of applications to the program far exceeds the number of positions available, the program's Admissions Committee reserves the right to limit the number of applicants to be interviewed to two times the number of positions available in the class. Interviews are conducted in January.

Clinical Observation - The student must observe for a minimun of 8 hours in a radiation oncology facility prior to applying to the program.

Additional Non-Radiographer Admission Requirements

Class Size - Admits 12 Non-radiographers

Minimum Number of Prerequisite Credits – 50

Additional Radiographer Admission Requirements

Minimum Number of Prerequisite Credits – Satisfactory completion of general education and technical specialty requirements.

Minimum Specific Grade Point Average – 2.5 on a 4.0 scale for radiography course work.

Proof of Radiologic Technology Specialty - Applicants must supply evidence of registration in radiography by the ARRT or completion of a radiography program accredited by the Joint Review Committee on Education in Radiologic Technology, such as the Fort Wayne School of Radiography. The technical specialty area is complete for applicants who have completed an associate or baccalaureate degree in radiography.

The details of your prerequisite course work should be discussed with an IPFW allied health sciences advisor. You are also encouraged to consult an advisor at the IUPUI campus to discuss the degree by calling (317)278-4752 or by e-mail at askhpp@iupui.edu. The most current program information is found at http://msa.iusm.iu.edu/hpp/.

At IPFW you may complete the following courses:

ENG W131 - Elementary Composition I Cr. 3.
ENG W233 - Intermediate Expository Writing Cr. 3.
PSY 12000 - Elementary Psychology Cr. 3.

Choose one of the following Credits: 3

COM 11400 - Fundamentals of Speech Communication Cr. 3.
COM 21200 - Approaches to the Study of Interpersonal Communication Cr. 3.

Choose one of the following Credits: 5-6

MA 15900 - Precalculus Cr. 5.

Or select:

MA 15300 - Algebra and Trigonometry I Cr. 3.
    and
MA 15400 - Algebra and Trigonometry II Cr. 3.

Choose one of the following Credits: 3

STAT 30100 - Elementary Statistical Methods I Cr. 3.
PSY 20100 - Introduction to Statistics in Psychology Cr. 3.

Choose one of the following Credits: 3

ETCS 10600 - Introduction to Computers Cr. 3.

Or select:

Computer Orientation

BUS K211 - Spreadsheets for Business Cr. 1.
    and
BUS K212 - Introduction to Database Management Cr. 1.
    and
BUS K213 - Internet Literacy for Business Cr. 1.

Choose one of the following Credits: 8

BIOL 20300 - Human Anatomy and Physiology Cr. 4.
    and
BIOL 20400 - Human Anatomy and Physiology Cr. 4.

Or select:

BIOL 21500 - Basic Human Anatomy Cr. 4.
    and
BIOL 21600 - Basic Mammalian Physiology Cr. 4.

Choose one of the following Credits: 4-5

PHYS 20100 - General Physics I Cr. 5.
PHYS 21800 - General Physics Cr. 4.
PHYS 22000 - General Physics Cr. 4.

Choose one of the following Credits: 1-3

AHLT R185 - Medical Terminology Cr. 1.
BIOL 10500 - Medical Terminology Cr. 1.
NUR 10600 - Medical Terminology Cr. 3.

Electives:

Business electives: Cr. 6
Humanities elective: Cr. 3
Social/Behavioral science elective: Cr. 3
General electives to bring total credits to 50

Total Credits: 50

Respiratory Therapy

Transfer Opportunity to IUPUI
Student Success Center
College of Health and Human Services

Neff Hall 120 ~ 260-481-4187 ~ http://www.ipfw.edu/hhs/ahtp/programs/respiratory.shtml

At IPFW you may complete two years toward the Bachelor of Science in respiratory therapy. You must apply and be admitted to the Respiratory Therapy Program at Indiana University-Purdue University Indianapolis (IUPUI) to complete the degree. Completion of IPFW course work does not guarantee admission to the IUPUI program. The IUPUI respiratory therapy program is part of a hospital- and university-based consortium that also includes Ball State University, the University of Indianapolis, and Clarian Health Partners. Classroom and laboratory courses are held at Methodist Hospital (Indianapolis). Students remained enrolled at IUPUI for all their Respiratory Therapy courses. Graduates receive their degree from the IU School of Medicine.

Overview - Respiratory therapists evaluate and treat patients with cardiopulmonary disorders and are actively involved in health promotion and disease prevention.

Prerequisite Courses - Prior to entering IUPUI's Respiratory Therapy Program, the student must complete the minimum prerequisites. These prerequisites may be completed at IPFW. Students should consult with an IPFW allied health sciences advisor for appropriate courses and semester sequencing.

IUPUI Admission Requirements

Total Number of Prerequisite Credits - 55   These may be completed at IPFW.

Class Size - Approximately 30 students in the consortium.

Application Deadline - January 1. Late applications will be considered on a space-available basis.

Minimum Cumulative Grade Point Average - 2.5 on a 4.0 scale - This requirement is applied at the time of program application and must be maintained.

Minimum Specific Grade Point Average - 2.0 on a 4.0 scale for math and science course work. This requirement is applied at the time of program application and must be maintained.

Cardiopulmonary Resuscitation (CPR) Certification - All students are required to complete instruction for adult, child, and infant CPR before entry into the program. This must be the Healthcare Provider CPR or CPR

for the Professional Rescuer. These courses are offered for a fee through the American Heart Association and the American Red Cross.

Technical Standards - See IUPUI Health Professions Programs policy. All accepted students will be required to sign a statement certifying that they can meet the program's technical standards.

Medical Requirements - All students are required to complete a medical history and document a complete vaccination program once accepted into the respiratory therapy program.

Interview - Qualified applicants must participate in an interview.

Clinical Observation - Applicants must complete and document at least three hours of clinical observation with a respiratory therapist.

Limited Submission of Application - Students apply to the professional/clinical portion of the respiratory therapy program may <u>not</u> submit applications through two or more universities.

The details of your prerequisite course work should be discussed with an IPFW allied health sciences advisor. You are also encouraged to consult an advisor at the IUPUI campus to discuss the degree by calling (317)278-4752 or by e-mail at askhpp@iupui.edu. The most current program information is found at http://msa.iusm.iu.edu/hpp/.

At IPFW you may complete the following courses:

BIOL 22000 - Microbiology for Allied Health Professionals Cr. 4.
CHM 11500 - General Chemistry Cr. 4.
ENG W131 - Elementary Composition I Cr. 3.
ENG W233 - Intermediate Expository Writing Cr. 3.
MA 15300 - Algebra and Trigonometry I Cr. 3.
MA 15400 - Algebra and Trigonometry II Cr. 3.
PSY 12000 - Elementary Psychology Cr. 3.
ETCS 10600 - Introduction to Computers Cr. 3.

Choose one of the following sequences Credits: 8

BIOL 20300 - Human Anatomy and Physiology Cr. 4.
    and
BIOL 20400 - Human Anatomy and Physiology Cr. 4.

Or select:

BIOL 21500 - Basic Human Anatomy Cr. 4.
    and
BIOL 21600 - Basic Mammalian Physiology Cr. 4.

Choose one of the following Credits: 3

COM 11400 - Fundamentals of Speech Communication Cr. 3.
COM 21200 - Approaches to the Study of Interpersonal Communication Cr. 3.

Choose one of the following Credits: 3

PHIL 11100 - Ethics Cr. 3.
PHIL 31200 - Medical Ethics Cr. 3.

Choose one of the following Credits: 3

ECON E270 - Introduction to Statistical Theory in Economics and Business I Cr. 3.
PSY 20100 - Introduction to Statistics in Psychology Cr. 3.
SOC S351 - Social Statistics Cr. 3.
SPEA K300 - Statistical Techniques Cr. 3.
STAT 30100 - Elementary Statistical Methods I Cr. 3.

Choose one of the following Credits: 3

EDUC P249 - Growth and Development in Early Childhood Cr. 3.
PSY 23500 - Child Psychology Cr. 3.
PSY 36200 - Human Development II: Adolescence Cr. 3.
PSY 36700 - Adult Development and Aging Cr. 3.
PSY 36900 - Development Across the Lifespan Cr. 3.

Choose one of the following Credits: 4-5

PHYS 20100 - General Physics I Cr. 5.
PHYS 21800 - General Physics Cr. 4.
PHYS 22000 - General Physics Cr. 4.

Electives:

General electives to bring total credits to 55

Total Credits: 55

TransferIN.net: Indiana Core Transfer Library

TransferIN.net: Indiana Core Transfer Library

What is the CTL?

Indiana is working to help you transfer college credits more easily. To enable students to connect college credits, Indiana has developed the Core Transfer Library (CTL) - a list of courses that will transfer among all Indiana public college and university campuses, assuming adequate grades.

Core Transfer Library courses will meet the general or free elective requirements of undergraduate degree programs, and most CTL courses will also count toward degree program requirements - if an equivalent course is taught at your new campus.

At the time of publication, the IPFW courses listed below have been approved as part of the CTL. Additional courses are being added. For complete and up-to-date information, visit www.transferIN.net.

Course List:

AST A100 - The Solar System Cr. 3.
BIOL 10000 - Introduction to the Biological World Cr. 3.
BIOL 10001 - Introduction to the Biological World Laboratory Cr. 1.
BIOL 10500 - Medical Terminology Cr. 1.
BIOL 11700 - Principles of Ecology and Evolution Cr. 4.
BIOL 11900 - Principles of Structure and Function Cr. 4.
BIOL 22000 - Microbiology for Allied Health Professionals Cr. 4.
BUS A201 - Principles of Financial Accounting Cr. 3.
BUS W100 - Principles of Business Administration Cr. 3.
CHM 10400 - Living Chemistry Cr. 3.
CHM 11500 - General Chemistry Cr. 4.
CHM 11600 - General Chemistry Cr. 4.
COM 11400 - Fundamentals of Speech Communication Cr. 3.
COM 21200 - Approaches to the Study of Interpersonal Communication Cr. 3.
ECON E200 - Fundamentals of Economics Cr. 3.
ECON E201 - Introduction to Microeconomics Cr. 3.
ECON E202 - Introduction to Macroeconomics Cr. 3.
ENG L101 - Western World Masterpieces I: Ancient to Renaissance Cr. 3.
ENG L102 - Western World Masterpieces II: Renaissance to Modern Cr. 3.
ENG L202 - Literary Interpretation Cr. 3.
ENG L250 - American Literature Before 1865 Cr. 3.
ENG L251 - American Literature Since 1865 Cr. 3.
ENG L390 - Children's Literature Cr. 3.
ENG W103 - Introductory Creative Writing Cr. 3.
ENG W131 - Elementary Composition I Cr. 3.
ENG W233 - Intermediate Expository Writing Cr. 3.
ENG W234 - Technical Report Writing Cr. 3.
ETCS 10600 - Introduction to Computers Cr. 3.
FINA H101 - Art Appreciation Cr. 3.
FINA H111 - Ancient and Medieval Art Cr. 3.
FINA H112 - Renaissance Through Modern Art Cr. 3.
FNN 30300 - Essentials of Nutrition Cr. 3.
FREN F111 - Elementary French I Cr. 4.
FREN F112 - Elementary French II Cr. 4.
FREN F203 - Second-Year French I Cr. 3.
FREN F204 - Second-Year French II Cr. 3.
GEOL G103 - Earth Science: Materials and Processes Cr. 3.
HIST H105 - American History I Cr. 3.
HIST H106 - American History II Cr. 3.
MA 15300 - Algebra and Trigonometry I Cr. 3.
MA 15400 - Algebra and Trigonometry II Cr. 3.
MA 16500 - Analytic Geometry and Calculus I Cr. 4.
MA 16600 - Analytic Geometry and Calculus II Cr. 4.
MA 16800 - Mathematics for the Liberal Arts Student Cr. 3.
MA 21300 - Finite Mathematics I Cr. 3.
MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.
MA 23000 - Calculus for the Managerial, Social, and Biological Sciences II Cr. 3.
MUS Z101 - Music for the Listener Cr. 3.
PHIL 11100 - Ethics Cr. 3.
PHIL 20600 - Philosophy of Religion Cr. 3.
PHYS 15200 - Mechanics Cr. 5.

PHYS 22000 - General Physics Cr. 4.
PHYS 22100 - General Physics Cr. 4.
PHYS 25100 - Heat, Electricity, and Optics Cr. 5.
POLS Y103 - Introduction to American Politics Cr. 3.
POLS Y109 - Introduction to International Relations Cr. 3.
PSY 12000 - Elementary Psychology Cr. 3.
PSY 24000 - Introduction to Social Psychology Cr. 3.
PSY 35000 - Abnormal Psychology Cr. 3.
PSY 36900 - Development Across the Lifespan Cr. 3.
PSY 44400 - Human Sexual Behavior Cr. 3.
SOC S161 - Principles of Sociology Cr. 3.
SOC S163 - Social Problems Cr. 3.
SPAN S111 - Elementary Spanish I Cr. 4.
SPAN S112 - Elementary Spanish II Cr. 4.
SPAN S203 - Second-Year Spanish I Cr. 3.
SPAN S204 - Second-Year Spanish II Cr. 3.
SPEA J101 - The American Criminal Justice System Cr. 3.
THTR 13400 - Fundamentals of Performance Cr. 3.
THTR 20100 - Theatre Appreciation Cr. 3.

Other Programs

Computer Engineering and Electrical Engineering (B.S.Cmp.E & B.S.E.E Dual Degree)

Programs: B.S.Cmp.E. & B.S.E.E.
Department of Engineering
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 327 ~ 260-481-6362 ~ www.engr.ipfw.edu

You may choose to complete a dual degree in Computer Engineering and Electrical Engineering by completing all of the requirements in both the B.S.Cmp.E. and the B.S.E.E. programs. With overlapping coursework, the dual degree requires 147 hours.

Academic Calendar

Click on a link to be taken to the entry below.

2010-2011 Academic Calendar

Fall Semester 2010

Monday, Aug. 23	*Classes Begin*
Friday, Sept. 3	*Classes Suspended at 4:30 p.m. (Labor Day Recess)*
Tuesday, Sept. 7	*Classes Resume*
Monday-Tuesday, Oct. 11-12	*Fall Recess*
Tuesday, Nov. 23	*Thanksgiving Recess Begins After Last Class*
Monday, Nov. 29	*Classes Resume*
Monday-Sunday, Dec. 13-19	*Final Exam Week/Last Week of Classes*

Spring Semester 2011

Monday, Dec. 20	*Spring Semester Begins*

Winter Intersession

Monday, Dec. 20	*Classes Begin*
Friday, Dec. 24	*Holiday Recess Begins*
Monday, Dec. 27	*Classes Resume*
Friday, Dec. 31	*Holiday Recess Begins*
Monday, Jan. 3	*Classes Resume*
Sunday, Jan. 9	*Classes and Exams End*

Spring Session

Monday, Jan. 10	*Classes Begin*
Monday, Jan. 17	*Martin Luther King Jr. Holiday*
Monday, March 7	*Spring Recess Begins*
Monday, March 14	*Classes Resume*
Friday, April 22	*Classes Suspended at 4:30 p.m.*
Monday, April 25	*Classes Resume*
Monday-Sunday, May 2-May 8	*Final Exam Week/ Last Week of Classes*
Wednesday, May 11	*Tentative Date of Commencement*

Summer Semester 2011

Monday, May 9	*Summer Semester Begins*

Summer Session I

Monday, May 16   *Classes Begin*
Friday, May 27   *Classes Suspended at 4:30 p.m. (Memorial Day Recess)*
Tuesday, May 31   *Classes Resume*
Friday, June 24   *Classes End*

Summer Session II

Monday, June 27   *Classes Begin*
Friday, July 1   *Classes Suspended at 4:30 p.m. (Independence Day Holiday Recess)*
Monday, July 4   *Independence Day Holiday Observed*
Tuesday, July 5   *Classes Resume*
Friday, Aug. 5   *Classes End*

Summer Session Ends

Sunday, Aug. 21   *Summer Semester Ends*

2011-2012 Academic Calendar

Fall Semester 2011

Monday, Aug. 22   *Classes Begin*
Friday, Sept. 2   *Classes Suspended at 4:30 p.m. (Labor Day Recess)*
Tuesday, Sept. 6   *Classes Resume*
Monday-Tuesday, Oct. 10-11   *Fall Recess*
Tuesday, Nov. 22   *Thanksgiving Recess Begins After Last Class*
Monday, Nov. 28   *Classes Resume*
Monday-Sunday, Dec. 12-18   *Final Exam Week/Last Week of Classes*

Spring Semester 2012

Monday, Dec. 19   *Spring Semester Begins*

Winter Intersession

Monday, Dec. 19   *Classes Begin*
Friday, Dec. 23   *Holiday Recess*
Monday, Dec. 26   *Classes Resume*
Friday, Dec. 30   *Holiday Recess*

Monday, Jan. 2	*Classes Resume*
Sunday, Jan. 8	*Classes End*

Spring Session

Monday, Jan 9	*Classes Begin*
Monday, Jan. 16	*Martin Luther King Jr. Holiday*
Monday, March 5	*Spring Recess Begins*
Monday, March 12	*Classes Resume*
Friday, April 6	*Classes Suspended at 4:30 p.m.*
Monday, April 9	*Classes Resume*
Monday-Sunday, April 30-May 6	*Final Exam Week/ Last Week of Classes*
Wednesday, May 9	*Tentative Date of Commencement*

Summer Semester 2012

Monday, May 7	*Summer Semester Begins*

Summer Session I

Monday, May 14	*Classes Begin*
Friday, May 25	*Classes Suspended at 4:30 p.m. (Memorial Day Recess)*
Tuesday, May 29	*Classes Resume*
Friday, June 22	*Classes End*

Summer Session II

Monday, June 25	*Classes Begin*
Friday, July 3	*Classes Suspended at 4:30 p.m. (Independence Day Holiday Recess)*
Thursday, July 5	*Classes Resume*
Friday, Aug. 3	*Classes End*

Summer Session Ends

Sunday, Aug. 19	*Summer Semester Ends*