Department of Electrical and Computer Engineering

Purdue University Fort Wayne

GRADUATE PROGRAM GUIDELINES

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1. MASTER'S DEGREE

The Department of Electrical and Computer Engineering (ECE) at Purdue University Fort Wayne offers the Master of Science in Engineering (MSE) degree with the following three *concentration areas*:

- Computer Engineering
- Electrical Engineering
- Systems Engineering

Thesis and non-thesis options are both possible. The MSE degree is awarded to students who:

1. Have been accepted into the MSE program (see **Section 2** for admission requirements).
2. Have satisfied the degree requirements of the MSE program (see **Section 3** for degree requirements).

2. ADMISSION REQUIREMENTS

2.1. Basic Requirements

Admission to the MSE program may be granted if the applicant meets the following requirements:

1. Hold a Bachelor of Science degree in engineering.
2. Have achieved an undergraduate grade point average of at least 3.0 or equivalent.
3. Have completed the mathematics sequence of courses equivalent to MA 16500 (Calculus I), MA 16600 (Calculus II), MA 26100 (Multivariable Calculus), MA 35100 (Linear Algebra), and MA 36300 (Differential Equations).
4. Have completed the physics sequence of courses equivalent to PHYS 15200 (Mechanics) and PHYS 25100 (Heat, Electricity, and Optics).
5. Have completed an equivalent of the undergraduate engineering prerequisite courses in his/her area of concentration according to **Table 1**.

Table 1 Undergraduate engineering prerequisite courses

Concentration Area	Prerequisite Undergraduate Courses
Computer Engineering	ECE 30100, ECE 30200, ECE 36800, ECE 43700
Electrical Engineering	ECE 33300, ECE 42800, ECE 43600
Systems Engineering	-

See **Appendix A** for the course titles

2.2. English Proficiency Requirement

An applicant whose native language is not English must demonstrate acceptable proficiency in written English by satisfying one of the following options:

1. Achieved the following minimum test scores on the Test of English as a Foreign Language (TOEFL) through the paper-delivered test and Internet-based test.

   The minimum Internet-Based Test (iBT) scores required for admission are the following:
   - Writing: 18
   - Speaking: 18
   - Listening: 14
   - Reading: 19
   - Total: 80

2. Achieved the following minimum test scores on the on the International English Language Testing System (IELTS) exam
   - Reading: 6.5
   - Listening: 6.0
   - Speaking: 6.0
   - Writing: 5.5
   - Overall score: 6.5

3. Enrolled in ELS Language Center's English for Academic Purposes program and passed ELS Level 112.

Please check the most up-to-date English proficiency requirements at Purdue University Graduate School [1]. Please note that GRE scores are not required to apply to the MSE program at Purdue University Fort Wayne.

2.3. Admission of Non-ECE or Non-Engineering Majors

The admission to the MSE program may be granted if the applicant meets all requirements for admission except that the applicant:

1. Holds a Bachelor of Science degree in physical sciences, computer science, or technology (as opposed to engineering) from an accredited institution, and
2. Has achieved an undergraduate grade point average of at least 3.0 or equivalent.

The applicant will be required to complete the prerequisite undergraduate courses listed in **Section 2.1** as well as those listed in **Table 1** in the desired area of concentration.

A student may fulfill the requirements for an undergraduate prerequisite course through one of the following methods:

1. Take the course and receive a grade of B- or better.
2. Pass a comprehensive exam for the course with a grade of B- or better. (This option is available only to students who are not enrolled in the course.)
3. Provide official documentation showing a grade of B- or better was obtained in an equivalent course.

3. DEGREE REQUIREMENTS

A student pursuing the MSE degree must select the thesis or the non-thesis option and a concentration area. For the non-thesis option, a minimum of 30 credit hours of graduate-level coursework is required. For the thesis option, a minimum of 30 credit hours of graduate-level credits, of which six credit hours are thesis research, is required. Pass/No-Pass grades are not permitted for courses on the Master's plan of study. Please note that only 500-level courses and above can be used to satisfy degree requirements.

3.1. Core Course Requirement

A student must successfully complete four required core courses from those listed in **Table 2**. The core courses cover material essential to the specific concentration area.

Table 2 Core Courses for Specific Concentration Areas

Concentration Area	Core Courses (12 credits total)
Computer Engineering	ECE 53800, ECE 54700, ECE 56700, ECE 60000, ECE 66100
Electrical Engineering	ECE 53800, ECE 54300, ECE 56900, ECE 58400, ECE 60000
Systems Engineering	SE 52000, SE 53000, SE 54000, SE 55000, SE 58301

See **Appendix A** for the course titles

Note*:* Other graduate-level ECE courses may also be considered as core courses in the Computer Engineering and Electrical Engineering concentration areas with the approval of the major advisor (non-thesis option) or the advisory committee (thesis option).

3.2. Engineering Elective Requirement (Depth Requirement)

A minimum of two graduate-level engineering elective courses is required. Refer to **Appendix A** for a list of engineering elective courses offered by the ECE Department.

3.3. Engineering/Math/Stat/ACS/CS/Technology Requirement

A minimum of two graduate-level courses from Engineering (ECE, SE, ME, ENGR), Mathematics (MATH), Statistics (STAT), Computer Science (ACS or CS), or Technology are required. For more information about the available courses, please refer to the current graduate catalog [2].

3.4. General Elective Requirement

A non-thesis option student must successfully complete two general elective graduate-level courses in consultation with their advisor. Appropriate areas for coursework include: Engineering, Physics, Math, Computer Science, Technology, Business, Organizational Leadership, etc. The purpose of these courses is to give students flexibility to tailor the program to meet his/her specific needs. For more information about the available courses, please refer to the current graduate catalog [2].

3.5. Taking Courses from Other Purdue Campuses and Universities

Students are allowed to take courses from other Purdue campuses as well as from other accredited universities. In order to be able to count these courses towards their degree, students must first obtain permission from their advisory committee by updating their plan of study. Additionally, they must maintain their active status at Purdue University Fort Wayne.

Students who want to take on-line courses at Purdue University West Lafayette through their Professional

Education program must complete the on-line application for Non-Degree Seeking students [3]. It is recommended that the application to be submitted no later than two weeks before the start of the semester.

A student taking courses at other campuses for more than one semester should consult their major professor or the Director of Graduate Studies to determine if additional action is necessary to maintain their active status.

3.6. Research (Thesis) Credit Requirement

Research (thesis) credits are not required for students on non-thesis option. However, students pursuing the thesis option are required to register for 6-credit hours of ECE 69800 research (thesis) credits. Students must check with their major professor (i.e., thesis advisor) to determine the number of research hours appropriate for their program.

3.7. Summary of Degree Requirements

Table 3 lists the summary of course and credit hour requirements for the MSE degree.

Table 3 Summary of Course and Credit Hour Requirements

	Non-Thesis Option	Thesis Option
Core-Courses	12	12
Engineering Elective Courses	6	6
Engineering/MATH/STAT/ACS/CS/Technology Courses	6	6
General Elective Courses	6	-
Graduate Projects	-	-
Research (Thesis) Credits	-	6
Total Credits	30	30

Please note that:

- The total number of credits, earned as either an undergraduate or in post-baccalaureate status, that can be transferred to the MSE program is limited to 12 credit hours.
- Undergraduate or graduate courses that have been used to satisfy the requirements for another degree cannot be used to satisfy the MSE degree.
- The choice of Engineering/MATH/STAT/ACS/CS/Technology and general elective courses must be approved by the ECE Department in advance via the student's Plan of Study.

  The following is a non-exhaustive list of graduate courses that MSE students cannot include in their Plan of Study: STAT 51100 (Statistical Methods), STAT 51600 (Basic Probability and Applications), STAT 51900 (Introduction to Probability).

  Please note that Independent Study type of courses (e.g., certain CS 59000 and MA 59800 courses) cannot be included in the Plan of Study unless approved by the faculty advisor (non-thesis option) or the advisory committee (thesis option).

4. ADVISORY COMMITTEE

4.1. Committee Composition

Every student in the MSE program is required to select a major professor who acts as the chair of the advisory committee and agrees to supervise the student's graduate study, research, and writing.

The Chair of the advisory committee must be a graduate faculty of Purdue University and a member of the area of concentration that the student has declared. See **Table 4** for a list of graduate faculty members in the ECE Department and their areas.

Table 4 Graduate faculty (Regular Appointment) in ECE Department

Faculty Name	Identifier	Area
Chen, Bin	W0527	CmpE/EE
Chen, Chao	W0285	CmpE
Cochran, David	W0399	SE
Cooklev, Todor	W0364	EE
Freitas, Claudio	W0586	CmpE/EE
Liu, Yanfei	W0291	CmpE/EE
Thompson, Elizabeth	W0243	EE
Wang, Antian	W0139	CmPE
Wang, Guoping	W0301	CmpE

The student and the major professor are responsible for the selection of an advisory committee. The committee consists of the major professor and at least two other members of the graduate faculty. A majority of the advisory committee should be composed of members of the graduate faculty listed in **Table 4**. A special member, defined as a person without regular certification, may be added as a fourth member of the committee. A minimum of one member of the graduate faculty may be permitted to serve and fully constitute the membership of the advisory committee for students on non-thesis option.

Faculty members from other universities, researchers from industry, and non-faculty research staff from the Purdue University Fort Wayne campus have to be certified as a special member by the Graduate School for them to be members of the advisory committee. A student may initiate a request for special membership and submit it to the Director of the graduate program. A current and complete vita for the special member has to be submitted along with the request.

The advisory committee is established when the plan of study is approved. Any change to the advisory committee requires a change on the plan of study (please refer to **Section 5.2**).

4.2. Committee Duties for a Thesis Option Student

1. The student shall select a major professor (also called the thesis advisor) who will serve as the Chair of the advisory committee.
2. The major professor/student relationship must be a mutually acceptable one.
3. With the advice of the major professor, the student will select the remaining members of the advisory committee.

4. The duties of the advisory committee are to assist the student in preparation of the plan of study, advise the student on research related to the Master's thesis, and conduct examinations on the Master's thesis.
5. The committee may also assist in reviewing and advising a student placed on probation, per the policy on academic standing described in **Section 8.3**.

4.3. Committee Duties for a Non-Thesis Option Student

1. The Director of the graduate program, in consultation with the student, shall select the advisory committee and the chair of the committee.
2. The major professor/student relationship must be a mutually acceptable one.
3. The main duty of the advisory committee is to assist the student in preparation of the plan of study.
4. The committee may also assist in reviewing and advising a student placed on probation, per the policy on academic standing described in **Section 8.3**.

5. PLAN OF STUDY

All master students are advised to file a draft of plan of study early in their program. This helps to ensure a logical curriculum early, sets a clear pathway toward completion of the student's degree, and helps the department plan and monitor the overall MSE program. All students must submit their plan of study before the start of their graduating semester. If necessary, changes can be made to the plan of study before the submission deadline, subject to the restrictions cited in **Section 5.1**. The plan of study must be appropriate to meet the needs of the student's chosen area of concentration as determined by the advisory committee.

5.1. Preparing the Plan of Study

5.1.1. Procedure

All degree seeking graduate students are required to submit an electronic plan of study (EPOS) through the Graduate School Web Database, which can be accessed through go.pfw.edu under the "Academic Success" tab through Graduate School Plan of Study. This EPOS serves as a contract between the student, their advisory committee, and the Graduate School. It lists the courses that the student expects to take for the degree program, any concentration the student is pursuing, the faculty members who will mentor them throughout their study and other key degree-related items. The following are guidelines and instructions for preparing the plan of study.

1. The student should review the list of graduate-level courses to determine the degree requirements for their particular area of concentration, and the courses to meet the degree requirements.
2. Only 500-level and above courses can be used in the plan of study.
3. Students on thesis option should select a faculty member listed in **Table 4** to be their major professor who will also serve as the chair of their graduate advisory committee. Then, in consultation with the major professor, the student need to select the remaining faculty members

to serve on the graduate advisory committee. (See **Section 4.2**)

4. Students on non-thesis option should select their major professor with the Director of the graduate program. (See **Section 4.3**)
5. Student can submit the plan of study as draft, if they would like their advisory committee to see the plan while the student still has direct access to make changes.
6. Students should confer with their advisory committee for advice on the plan and submit the plan of study.

The plan of study will be reviewed by the Director of the graduate program to ensure that it meets all degree requirements. It will then be submitted to the Purdue Graduate School for final approval.

5.1.2. Plan of Study

Certain fields in the electronic plan of study are explained below for reference:

1. Degree Title: Master of Science in Engineering
2. Either Non-Thesis or Thesis Option should be selected.
3. Research Area is optional. Non-thesis students should leave this area blank.
4. Select the concentration area (First Concentration only)
5. Skip Language Requirement
6. Please refer to Electronic Plan of Study Student Instructions document [4] for instruction on filling out course work.
    - Please refer to Purdue University Catalog (Section VII-B, Plan of Study) [5] for requirements applicable to Plan of Study.
    - Graduate courses taken while registered as a graduate student at Purdue University may be considered for fulfilling the plan of study requirements only if the student has received grades of C- or better.
    - Graduate course credits earned while as an undergraduate at Purdue University or other accredited institutions of higher learning may be applied toward an advanced degree if these credits are in excess of any requirements for the baccalaureate degree and the student received a grade of B- or better.
    - ECE 69800 Master Thesis course should not be listed on the plan of study.

5.2. Changing the Plan of Study

It is recognized that as a student's program progresses there may arise conditions that make it desirable to change the plan of study. Such changes, when based on sound academic reasons, are allowed. However, there are regulations to be observed for the change. Specifically:

- Each change requested must be accompanied by a brief rationale in the space provided. Poor performance in a course is not an appropriate reason for removing a course from the plan of study.
- No changes to the plan of study are allowed after the plan of study submission deadline.

- A request for changes in a plan of study must be submitted by the student and approved by the major professor and the director of the graduate program.
- If the requirements of the Master's degree program in the ECE Department are modified, there is no need for students to revise their previously approved plans of study to conform to the new rules. All approved plans of study remain valid. Students have the option to change their plan of study to conform to the new rules, but are not required to do so.

Course changes to the plan of study must be submitted electronically. Changes can also be made on major professor and/or other advisory committee members, or the area of concentration.

5.3. Transfer and Excess Course Credits

5.3.1. Transfer Credits

A maximum of 12 graduate-level credit hours earned at an accredited university may be applied toward the MSE degree and entered on the plan of study. All courses transferred must be graduate-level courses, must not have been used to meet the requirements for another degree, and must have been completed with a grade of B- or better. Grades from transfer courses are not included in computing the grade point average.

5.3.2. Excess Course Credits

Up to 12 credit hours of graduate-level courses taken before a student was admitted to the graduate program may be applied toward the MSE degree and entered on the plan of study. Allowed courses include those taken:

- As excess undergraduate-degree credit while at junior or senior-year standing, with a grade of B- or better, and the course was designated as a graduate course,
- In non-degree or graduate certificate status at Purdue University, with a grade of C- or higher,
- While seeking a degree in another department or school, if a request to transfer to MSE program was subsequently made.

5.3.3. Special Approval Requirements

Without exception, all transfer and excess course credits used on the plan of study must be approved by the advisory committee. If a transfer course is taken at another university, the student need to show the transcript, as well as a copy of the catalog description of the course to the advisory committee members and to the Director of the graduate program. In addition, a statement, from an official at the university where the course was taken, certifying that the course was not used to fulfill the requirements of any other degree may also be required.

6. FINAL EXAMINATION

There is no comprehensive exam requirement for non-thesis option students. Every thesis-option student must submit a thesis. It is also required that the student present and defend his/her work in a final oral examination, also called the thesis defense.

6.1. Thesis Preparation and Thesis Defense

The procedure to be followed by the student in preparing the thesis and defense is as follows:

1. Prior to beginning work on their thesis, students are strongly advised to develop a written proposal for their thesis. Students shall present the thesis proposal to their advisory committee to seek their input and approval for their proposed work.
2. Prior to the final semester, students are strongly advised to consult with their committee chair to review the plan for preparing and presenting the thesis. Students should also review necessary forms and graduation deadlines. A date for thesis defense should be scheduled in the first half of the final semester, with consultation of their advisory committee chair. The thesis defense must be completed before the semester deadline (approximately one week before the last day of classes) as indicated by the Graduate School, but it is strongly recommended not waiting until this late date.
3. The advisory committee chair, in consultation with the student and the examining committee, will determine when a draft of the thesis is due.
4. Students should initiate the Graduate School Form 8 "Request for Appointment of Examining Committee" to schedule the thesis defense. All Form 8 requests must be submitted electronically through Purdue Graduate School Database at least three weeks prior to the proposed date of defense. This request requires approvals from the major professor, Director of the graduate program, and the Graduate School.
5. The final examining committee must be composed of at least three members of the graduate faculty and may or may not be identical to the advisory committee. Members of the committee need not be faculty with whom the student has taken coursework, however, at least 51% of the committee members must have regular graduate faculty certification.
6. Students should use the template (in either LaTex or Microsoft Word format) [5] provided by the Purdue Graduate School Thesis and Dissertation Office as a guide in formatting their thesis. When the thesis preparation is completed, the student should get their major professor's approval to proceed and schedule the Final Examination. Copies of the thesis are to be distributed to the Advisory Committee members at least two weeks in advance of the examination.
7. Before thesis defense, students must follow instructions on the process of initiating the electronic Thesis Acceptance Form (G.S. Form 9) [7]. If a student would like to request confidentiality or delay of publication of their thesis, these requests should be specified in the online form as well.
8. At the conclusion of the defense, the examining committee chair should electronically present the examination committee with the Thesis Acceptance Form. This form should be completed and signed without delay for prompt submission to the Graduate School.

6.2. Reporting the Results of Examinations

After the oral defense, Graduate School Form 7 "Report of Master's Examining Committee" needs to be filled electronically to report the results of thesis defense. Form 7 can be accessed through Purdue Graduate School Database. Committee certification for a master's degree requires that all members of a three-person committee concur that the student has satisfactorily completed the examination (with the

exception of departments with an approved one-member flexibility option). Although only three committee members are required, if the committee has four or more members, a single member may withhold his or her signature of approval.

If the examination is unsatisfactory, a candidate must wait at least until the following session to repeat the final examination. A new electronic Request for Appointment of Examining Committee (G.S. Form 8) must be submitted.

6.3. Thesis Deposit

Once the electronic Thesis Acceptance Form (G.S. Form 9) has been approved, the student will receive an email containing a notification that they may proceed with the deposit process. At this point, the student will be able to login to their Plan of Study portal and find the link to submit the thesis to Hammer Research Repository (HammerRR).

After the student has created a profile and uploaded the thesis, a staff member of the Purdue University Thesis & Dissertation Office will review the submission for any formatting errors and will contact them regarding necessary changes. This process will continue until a satisfactory formatting condition is met, after which, the student will receive an email regarding the acceptance of their electronic thesis to the Graduate School.

The student must upload their thesis to HammerRR at least 24 hours in advance of the Deposit Deadline, to allow adequate time to review the submission.

A Master's thesis deposit fee is required.

Please refer to the detailed description of the thesis deposit requirements [7]. The specific due dates for final examination and thesis deposit are published by the Graduate Office each semester [8].

7. GRADUATION PROCEDURES

In the penultimate semester, every student should complete and submit the following forms:

1. A plan of study (see **Section 5**)
2. The Purdue University Fort Wayne Graduate Application [9]

Thesis-option students should follow the procedures described in **Section 6** for scheduling and holding the thesis defense and uploading their thesis.

If any student plans to attend the graduation ceremony, they must order their cap and gown and graduation announcements during the middle of semester. The procedures and dates are published on the Purdue University Fort Wayne Commencement web site [10].

7.1. Minimum GPA to Graduate

The graduation GPA is computed using credits for which a student is assigned a GPA-related grade in only those courses that fulfill a graduation requirement. The minimum GPA to graduate is 3.0.

8. REGULATIONS AND POLICIES

The content of this section is from the Purdue University Fort Wayne Graduate Catalog [2], published yearly by the Office of the Registrar.

8.1. Grades

- **Basis of grades.** The course instructor is responsible for explaining to students, preferably in writing at the beginning of an academic session, the course requirements and grading system to be used. Every student will be assigned a grade in each course at the close of the session.
- **Semester Grades**: The following grades in **Table 5** may be assigned. Please note that graduate courses taken while registered as a graduate student at Purdue University Fort Wayne may be considered for fulfilling the plan of study requirements only if the student has received grades of C- or better.

Table 5 Grades and Grade Points

Grade	Comments	Grade Point
A+, A	Highest passing grade	4.0 x Semester Hours
A-		3.7 x Semester Hours
B+		3.3 x Semester Hours
B	Average passing grade for graduate courses	3.0 x Semester Hours
B-		2.7 x Semester Hours
C+		2.3 x Semester Hours
C		2.0 x Semester Hours
C-	Lowest passing grade for graduate courses	1.7 x Semester Hours
D+		1.3 x Semester Hours
D	No credit for graduate courses	1.0 x Semester Hours
D-		0.7 x Semester Hours
F	Failure, or unauthorized discontinuance of class attendance; no credit	

- **Incomplete**: A temporary grade of incomplete (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. The full set of rules governing the use of incompletes can be found in the Graduate Catalog.

8.2. Grade-Point Average

A grade-point average (GPA) is a weighted average of all credits for which a GPA-related grade has been assigned. The three GPAs used at Purdue University Fort Wayne are defined and computed (and rounded to two decimal places) as follows:

- **Semester GPA** is computed using only those credits for which a student is assigned a GPA-related grade for the specified semester.
- **Cumulative GPA** is computed using all credits for which a student is 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 Purdue University Fort Wayne or at another campus of Purdue for which a GPA-related grade was assigned are applicable.

- **Program GPA** is computed using credits for which a student is 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 a student is pursuing more than one degree programs, their cumulative GPA will be determined by the academic unit through which they register.

All applicable credits earned at Purdue University Fort Wayne for which a GPA-related grade was assigned are included if they were received for courses that fulfill a graduation requirement.

8.3. Academic Standing

Only grades of C- or better are acceptable in fulfilling the degree requirements. All grades, however, are used in the calculation of the GPA, and students are expected to maintain a graduation index representing an average of B or better.

The ECE Department requires that students maintain a graduation index of 3.0 to remain in good academic standing. This policy is motivated by the fact that a graduation index of 3.0 is required to graduate and failure to maintain a graduation index of 3.0 can result in loss of a teaching or research assistantship.

The ECE Department defines the student's graduate index as their cumulative grade point average (GPA) for courses listed on the student's approved Plan of Study. The motivation of this policy is to ensure that students who are not making satisfactory progress toward graduation are identified and advised. In situations where a student is unable to raise their GPA to 3.0, they may be dismissed. Additionally, failure to maintain a graduation index of 3.0 may result in loss of a teaching or research assistantship.

Students who are admitted conditionally start their academic career on probation, per the terms stated in their admission letter. Probationary standing will also occur when a student's graduation index drops below 3.0 due to a grade of B- or worse. The following steps will take place when a student is placed on probationary status:

1. The student will be notified of their probation status.
2. When the graduation index drops below 3.0, the student will need to schedule a meeting with their advisor. The student and their advisor will discuss the student's performance and develop a plan to improve their grade point average. To ensure that this meeting takes place, the student will have a hold placed on their account until that meeting takes place.
3. If the student is unable to improve their GPA and graduation index at the end of the first probationary semester, the student will need to meet with their advisory committee. It is the responsibility of the advisory committee to determine if progress has been made, and if not, whether there were extenuating circumstances interfering with the student ability to perform at a satisfactory level. If the student has not made progress toward improving their graduation index, the committee may either allow the student to continue in the program with a deadline or ask them to leave the program. If the advisory committee disallows continuation, the student will be dismissed from the program.

References

[1]. Purdue University English Proficiency Requirements
https://www.purdue.edu/gradschool/admissions/how-to-apply/apply-toefl.html

[2]. Purdue University Fort Wayne, Graduate Catalog http://catalog.pfw.edu/index.php

[3]. Purdue Online College of Engineering: Apply for Non-Degree: Course Only
https://engineering.purdue.edu/online/apply-register/certificate-nondegree/course-only-non-degree

[4]. Purdue University The Graduate School Electronic Plan of Study Instruction Document
https://sites.pfw.edu/ece/index.html#MSE

[5]. Purdue University Graduate Catalog: Section VII-Part B. Plan of Study http://catalog.purdue.edu/

[6]. Purdue University Thesis and Dissertation Office, Templates
https://www.purdue.edu/academics/ogsps/research/thesis/templates.html

[7]. Purdue University Thesis and Dissertation Office, Deposit Requirements
https://www.purdue.edu/academics/ogsps/research/thesis/requirements.html

[8]. Purdue University Graduation Dates and Deadlines
https://www.purdue.edu/academics/ogsps/about/calendar/index.html

[9]. Purdue University Fort Wayne, Registrar
https://www.pfw.edu/offices/registrar-office/graduation-diplomas/

[10]. Purdue University Fort Wayne, Commencement https://www.pfw.edu/commencement

Appendix A: Course Titles

Table A.1 Undergraduate Courses Relevant to the Engineering Graduate Program in Computer Engineering and Electrical Engineering Concentration Areas

Number	Course Title
ECE 30100	Signal and Systems
ECE 30200	Probabilistic Methods in Electrical and Computer Engineering
ECE 33300	Automatic Control System
ECE 36800	Data Structures
ECE 42800	Modern Communication Systems
ECE 43600	Digital Signal Processing
ECE 43700	Computer Design and Prototyping

Table A.2 Graduate Core Courses

Number	Course Title
ECE 53800	Digital Signal Processing I
ECE 54700	Introduction to Computer Communication Networks
ECE 56700	FPGA Designs for Signal Processing Applications
ECE 60000	Random Variables and Signals
ECE 66100	Computer Vision
ECE 54300	Wireless Communication Networks
ECE 56900	Introduction to Robotics
ECE 58400	Linear Control Systems
SE 52000	Engineering Economics
SE 53000	Engineering Management
SE 54000	Systems Architecture
SE 55000	Manufacturing System Design for Sustainability
SE 58301	Applied Engineering Statistics for Industry

Table A.3 Engineering Electives for the Computer Engineering and Electrical Engineering Concentration Areas

Number	Course Title
ECE 50600	Biomedical Instrumentation Design
ECE 50700	Introduction to Biomedical Imaging
ECE 51800	Digital Image Processing
ECE 54000	Antenna Design, Analysis and Simulation Methods
ECE 54400	Digital Communications
ECE 54900	Software Defined Radio
ECE 56000	Body Sensors and Body Communications Networks
ECE 57500	Bioelectromagnetism, Modeling and Simulation Methods
ECE 58100	Microwave Engineering
ECE 58900	State Estimation and Parameter Identification of Stochastic Systems
ECE 59500	Selected Topics in Electrical Engineering
ECE 60800	Computational Models and Methods