PURDUE UNIVERSITY. FORT WAYNE Department of Civil and Mechanical Engineering

Course CE 401 – Civil Engineering Profession and Practice

Type of Course Required for Civil Engineering Program

Catalog Description This course introduces students to civil engineering career

options of practice and/or pursing graduate studies. The course provides information on duties, responsibilities, challenges, and

opportunities in civil engineering subdisciplines. It also highlights the importance of professional registration and

membership in professional societies; requirements for graduate studies and the need for life-long learning, and the role of civil engineers in addressing contemporary engineering related issues

such as sustainability and global warming.

Credits 1

Contact Hours 1

Prerequisite Courses Junior standing or permission of the instructor

Corequisite Courses None

Prerequisites by Topics None

Textbook None

Supplemental Materials Handouts provided by instructor

Course Objectives The goal of this course is to develop an understanding of various

civil engineering career tracks upon graduation, to be familiar with responsibilities and duties of professional subdisciplines within civil engineering, to be aware of the civil engineer responsibilities in solving local and global problems, to improve technical and non-technical communications skills, and to

understand the role of civil engineers in the society.

Course Outcomes Students who successfully complete this course will be able to:

1. Understand career options after graduation. [7]

2. Be familiar with professional societies such as ASCE and its impact [7]

- 3. Ability to communicate technical issues to professional and public. [3]
- 4. Familiar with civil engineering contemporary issues. [2]
- 5. Understand the engineering ethical issue and requirement for professional licensure. [4]

Lecture Topics

- 1. Career options: search for a job and/or pursue graduate studies?
- 2. Civil engineering career
 - a. Public versus private sectors
 - b. Duties, challenges, and opportunities in CE subdisciplines
- 3. Graduate schools and life-long learning
- 4. Professional societies role and impact
- 5. Engineering technical communication
- 6. Communication with public
- 7. Selected contemporary issues such as Infrastructure, Global Warming/Environment/Energy Issues, Sustainability and Green Technologies
- 8. Engineering ethics/law/legal issues
- 9. FE and PE exam requirements and procedures

Computer Usage

Medium

Laboratory Experience

None

Design Experience

None

Coordinator

Dong Chen, Ph.D., P.E.

Date

12 September 2016