**PURDUE UNIVERSITY**

**REQUEST FOR ADDITION, EXPIRATION, OR REVISION OF AN UNDERGRADUATE COURSE (100-400 LEVEL)**

**DEPARTMENT:** Engineering

**EFFECTIVE SESSION:** Fall 2012

**INSTRUCTIONS:** Please check the items below which describe the purpose of this request.

- 1. New course with supporting documents
- 2. Add existing course offered at another campus
- 3.Expiration of a course
- 4. Change in course number
- 5. Change in course title
- 6. Change in course credit/type
- 7. Change in course attributes (department head signature only)
- 8. Change in instructional hours
- 9. Change in course description
- 10. Change in course requisites
- 11. Change in semesters offered (department head signature only)
- 12. Transfer from one department to another

**PROPOSED:**

<table>
<thead>
<tr>
<th>Subject Abbreviation</th>
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<tbody>
<tr>
<td>CE</td>
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<th>Course Number</th>
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<tr>
<td>40100</td>
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**Long Title:** Civil Engineering Profession and Practice

**Short Title:** CE Profess & Practice

**EXISTING:**

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**CREDited TYPE:**

1. Fixed Credit: Cr. Hrs.
2. Variable Credit Range:
   - Minimum Cr. Hrs. (Check One)
   - Maximum Cr. Hrs.
3. Equivalent Credit:
4. Thesis Credit: Yes / No

**Course Number:**

<table>
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<tr>
<th>TERMS OFFERED: Check All That Apply</th>
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<tr>
<td>Summer</td>
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**CAMPUS(ES) INVOLVED:**

- Calumet
- Cont Ed
- Ft. Wayne
- N. Central
- Tech Statewide
- Indianapolis
- W. Lafayette

**ABBREVIATED TITLE:**

- [22 CHARACTERS ONLY]

**Institutional Type:**

- Lecture
- Recitation
- Presentation
- Laboratory
- Lab Prep
- Studio
- Distance
- Clinic
- Experiential
- Research
- Ind. Study
- Pract/Observ

**Minutes Per Mg:**

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<tr>
<th>Meetings Per Week</th>
<th>Weeks Offered</th>
<th>% of Credit (100)</th>
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<tr>
<td>50</td>
<td>16</td>
<td>100</td>
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**Delivery Method:**

- [Asyn. Gr Syn.]
- Synchronized

**Delivery Medium:**

- Audio, Internet, Live, Text-Based, Video

**COURSE DESCRIPTION:**

- [INCLUDE REQUISITES]

P: Junior Standing or permission of the instructor - This course introduces students to civil engineering career options of practice and/or pursuing graduate studies. It introduces fundamental concepts of management, business, public policy, and leadership. 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.

**Calumet Department Head**

**Calumet School Dean**

**Ft. Wayne Department Head**

**Ft. Wayne School Dean**

**Indianapolis Department Head**

**Indianapolis School Dean**

**North Central Department Head**

**North Central Chancellor**

**West Lafayette Department Head**

**West Lafayette College/School Dean**

**West Lafayette Registrar**

**Office of the Registrar**
Required Course: CE 401 – Civil Engineering Profession and Practice
Offered spring and fall

Catalog Data: Class: 1. Credits: 1.
This course introduces students to civil engineering career options of practice and/or pursuing graduate studies. It introduces fundamental concepts of management, business, public policy, and leadership. 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.

Prerequisites: Junior standing or permission of the instructor
Corequisite: N/A
Required Textbook: None
Reference: None

Course Objectives: The goal of this course is to develop understanding of basic concepts of management, business, public policy, and leadership; understand the importance and the process of getting professional licensure; reinforce students’ knowledge of leadership, ethics, and effective communications. Increase the awareness of the civil engineer responsibilities in solving local and global problem.

Schedule: One 50-minute class per week.

Lecture Topics
1. Career options: search for a job and/or pursue graduate studies? class
2. FE and PE exam requirements and procedures class
3. Fundamentals of Leadership class
4. Fundamentals of Public Policy class
5. Fundamentals of Management class
6. Fundamentals of Business class
7. Civil engineering career: public versus private sectors class
8. Graduate schools and life-long learning class
9. Professional societies role and impact class
10. Communications class
11. Selected contemporary issues such as Infrastructure, Global Warming/Environment/Energy Issues, Sustainability and Green Technologies classes
12. Engineering ethics/law/legal issues classes
13. Exams and Presentations classes
**Course Outcomes**  
Upon successful completion of this course, students shall be able to:

1. have good understanding of professional and ethical responsibility. [f (7)]
2. explain basic concepts of management, business, public policy, and leadership [f (10)]
3. understand the impact of civil engineering solutions in local, global, and political context. [h (9)]
4. communicate effectively with technical professionals and public. [g (8)]
5. recognition of the need for, and an ability to engage in life-long learning including pursuing graduate education, professional licensure and/or continuing education [i (2)]
6. knowledge of local, national and global contemporary issues [i (9)]

Letters and numbers in parentheses refer to ABET outcomes and their correspondence BSCE program Outcomes.

**ABET category**  
Engineering science: 1 credit or 100%
Engineering design: 0 credits or 0%
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 pursuing 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. [f, h, i]
2. Be familiar with professional societies such as ASCE and its impact [f]
3. Ability to communicate technical issues to professional and
4. Familiar with civil engineering contemporary issues.
5. Understand the engineering ethical issue and requirement for professional licensure.

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
Suleiman Ashur, Ph.D., P.E.

Date
April 1, 2011