TO: The Faculty of the College of Engineering

FROM: The Faculty of the Division of Construction Engineering and Management

RE: Change in Undergraduate Level Course CEM 29000 credits, number and title

The faculty of the Division of Construction Engineering and Management has approved the change in description and credits for the course listed below. This action is now submitted to the Engineering Faculty with recommendation for approval.

FROM: CEM 29000 – Construction Engineering Seminar

Sem. 2. Class 1, cr. 1.
Restricted to Construction Engineering and Management Majors Only

The objective of this course is an orientation to prepare the student for professional practice in construction engineering including information on Careers and Issues in Construction; History and Culture of the U.S. Construction Industry; Engineering Ethics and Preparation for Leadership. Information and assistance is also provided related to Specialty Options for Plans of Study; Students Organizations; Opportunities for Construction Research and Community Outreach at Purdue. Guest speakers will be utilized to enhance the experience. The guest speakers include industry partners as well as faculty and staff.

TO: CEM 28000 – Construction Engineering Professional Development I

Sem. 2. Lecture 2, cr. 2.
Prerequisite: CEM 19100

The course objectives will be the same as those stated for CEM 29000 in addition to those outlined in the support documentation.

REASON: Add instructional time to allow for greater feedback and depth of content in order to prepare for CEM 29100 – Construction Internship II. Will also allow greater flexibility with proposed companion course CEM 38000 to continue topics introduced in CEM 28000.

Makrand Hastak, Ph.D., PE, CCP
Professor and Head of Construction Engineering and Management
Professor of Civil Engineering

[Signature]

APPROVED FOR THE FACULTY OF THE SCHOOLS OF ENGINEERING BY THE ENGINEERING CURRICULUM COMMITTEE

Approved: 4/29/14

Chairman ECC: [Signature]
CEM 28000 Construction Engineering Professional Development I

Description: CEM 28000 will prepare the student for professional practice in construction engineering including information on Careers and Issues in Construction; History and Culture of the U.S. Construction Industry; Engineering Ethics and Preparation for Leadership. Information and assistance is also provided related to Minors and selections associated with the Plan of Study; Students Organizations; Opportunities for Construction Research and Community Outreach at Purdue. Guest speakers will be utilized to enhance the experience. The guest speakers include industry partners as well as faculty and staff. There will be an emphasis on written and oral communication.

Objectives: CEM 28000 will provide the student with content to support their successful professional advancement and sustained interest in construction engineering. More specifically:

a. Students will demonstrate an ability to apply knowledge of mathematics, science and engineering.

b. Students will demonstrate an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.

c. Students will demonstrate an ability to function on multidisciplinary teams.

d. Students will demonstrate an ability to identify, formulate, and solve engineering problems.

e. Students will demonstrate an understanding of professional and ethical responsibility.

f. Student will demonstrate an ability to communicate effectively.

g. Students will demonstrate the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.

h. Students will demonstrate a recognition of the need for, and an ability to engage in life-long learning.

i. Students will demonstrate a knowledge of contemporary issues.

j. Students will demonstrate an ability to use the techniques, sills, and modern engineering tools necessary for engineering practice.

Required Text: None

Recommended References: TBD

Schedule (Tentative):

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<thead>
<tr>
<th>Week</th>
<th>Topic</th>
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<tbody>
<tr>
<td>1</td>
<td>Introduction</td>
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<tr>
<td>2</td>
<td>Elevator Pitch</td>
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<td>3</td>
<td>Professional and Ethical Responsibility</td>
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<td>4</td>
<td>Portfolio Review</td>
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<td>5</td>
<td>GEP and EPICS Support</td>
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<td>6</td>
<td>Global Engineering Investigation</td>
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<td>7</td>
<td>Life-long Learning</td>
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Schedule continued:

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<tr>
<th>Week</th>
<th>Topic</th>
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<tr>
<td>8</td>
<td>Contemporary Issues</td>
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<td>9</td>
<td>Impromptu Public Speaking</td>
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<tr>
<td>10</td>
<td>GEP and EPICS Support</td>
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<td>11</td>
<td>Marketing &amp; Business Development</td>
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<td>12</td>
<td>Pre-Construction Services</td>
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<td>13</td>
<td>BIM</td>
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<td>14</td>
<td>Field Operations</td>
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<td>15</td>
<td>Safety</td>
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<td>16</td>
<td>Community Service</td>
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<td>17</td>
<td>Finals Week</td>
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</tbody>
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Grading:

a. 50% - Attendance based.
   i. Attendance in CEM 28000 is mandatory. A class roster is circulated at each class session for student sign-up. More than two unexcused absences will result in the student receiving an unsatisfactory grade for the course. Sleeping in class, reading the newspaper, utilizing electronic devices except to take notes or doing homework will be counted as an unexcused absence.
   ii. Guest speakers in CEM 28000 are special guests of Purdue University. Each comes to our class to contribute their time and involvement, at personal or company cost, and they are entitled to our sincere respect. The best way to respect guests is for you to:
       1. Be on time. This means that you must be in your seat before class and prepared for the assigned task.
       2. Give the speaker your total attention throughout the class.
       3. Take an active part in the speaker’s question-and-answer period.
       4. Electronic devices must be stored during class.

b. 50% - Oral and/or written communication assignments will be administered.
   i. The content of the course has been enhanced to introduce an oral and written communication requirement. This provides students greater exposure and practice in understanding issues in the Construction Industry. The assignments will be collected and graded.

c. Final grades will be defined as:
   i. A+ (100-97)  A (96.9-94)  A- (93.9-90)
   ii. B+ (89.9-87) B (86.9-84)  B- (83.9-80)
   iii. C+ (79.9-77) C (76.9-74)  C- (73.9-70)
   iv. D+ (69.9-67) D (66.9-64)  D- (63.9-60)
   v. F (59.9 or less)
PURDUE UNIVERSITY
REQUEST FOR ADDITION, EXPIRATION, OR REVISION OF AN UNDERGRADUATE COURSE
(10000-40000 LEVEL)

DEPARTMENT: Construction Engineering and Management
EFFECTIVE SESSION: Fall 2014 (2015-16)

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:

Subject Abbreviation: CEM
Course Number: 28000
Long Title: Construction Engineering Professional Development I
Short Title: CEM Prof. Development I

EXISTING:

Subject Abbreviation: CEM
Course Number: 28000

TERMS OFFERED:

☐ Summer ☐ Fall ☐ Spring

CAMPUS(ES) INVOLVED:

☐ Calumet ☐ Cont Ed ☐ Tech Statewide
☐ Ft. Wayne ☐ W. Lafayette
☐ Indianapolis

CREDIT TYPE:

1. Fixed Credit: Cr. Hrs. __ 2__
2. Variable Credit: Range: ____________
   Minimum Cr. Hrs. (Check One)
   ☐ 3. Equivalent Credit: Yes ☐ No

COURSE ATTRIBUTES:

☐ 1. Pass/No Pass Only
☐ 2. Satisfactory/Unsatisfactory Only
☐ 3. Repeatable
☐ 4. Credit by Examination
☐ 5. Fee
☐ 6. Lower Level
☐ 7. Full Time Privilege
☐ 8. Honors
☐ 9. Off Campus Experience

Abbreviated title will be entered by the Office of the Registrar if accepted (30 CHARACTERS ONLY)

Schedule Type: Lecture ☐ Recitation ☐ Presentation ☐ Laboratory ☐ Lab Prep ☐ Studio ☐ Clinical ☐ Clinical Experiential Research ☐ Ind. Study ☐ Practicums

Course Description (Include Prerequisites/Restrictions):

CEM 28000 will provide the student with content to support their successful professional advancement and sustained interest in construction engineering. More specifically: a. Students will demonstrate an ability to apply knowledge of mathematics, science and engineering. b. Students will demonstrate an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical; health and safety, manufacturability, and sustainability. c. Students will demonstrate an ability to function on multidisciplinary teams. d. Students will demonstrate an ability to identify, formulate, and solve engineering problems. e. Students will demonstrate an understanding of professional and ethical responsibility. f. Students will demonstrate an ability to communicate effectively. g. Students will demonstrate the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context. h. Students will demonstrate a recognition of the need for, and an ability to engage in life-long learning. i. Students will demonstrate a knowledge of contemporary issues. j. Students will demonstrate an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

Cross-Listed Courses:

RECEIVED
APR 29 2014
OFFICE OF THE REGISTRAR

Jan 3/14
Lam 5/1/14