

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

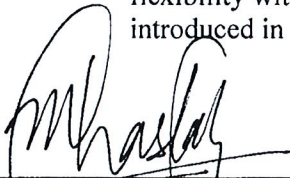
The objective of this course is an orientation to prepare the student for professional practice in construction engineering including information on Careers and Issues in Construction; History and Culture of the U.S. Construction Industry; Engineering Ethics and Preparation for Leadership. Information 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.


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

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

ECC Minutes 4/29/14

Date 4/29/14

Chairman ECC 

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, skills, and modern engineering tools necessary for engineering practice.

Required Text: None

Recommended References: TBD

Schedule (Tentative):

Week	Topic
1	Introduction
2	Elevator Pitch
3	Professional and Ethical Responsibility
4	Portfolio Review
5	GEP and EPICS Support
6	Global Engineering Investigation
7	Life-long Learning

Schedule continued:

Week	Topic
8	Contemporary Issues
9	Impromptu Public Speaking
10	GEP and EPICS Support
11	Marketing & Business Development
12	Pre-Construction Services
13	BIM
14	Field Operations
15	Safety
16	Community Service
17	Finals Week

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)

CEM 28000

201510

EFD 43-14

DEPARTMENT Construction Engineering and Management EFFECTIVE SESSION Fall 2014 (201510)

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

<input checked="" type="checkbox"/> 1. New course with supporting documents	<input type="checkbox"/> 7. Change in course attributes (department head signature only)
<input type="checkbox"/> 2. Add existing course offered at another campus	<input type="checkbox"/> 8. Change in instructional hours
<input type="checkbox"/> 3. Expiration of a course	<input type="checkbox"/> 9. Change in course description
<input type="checkbox"/> 4. Change in course number	<input type="checkbox"/> 10. Change in course requisites
<input type="checkbox"/> 5. Change in course title	<input type="checkbox"/> 11. Change in semesters offered (department head signature only)
<input type="checkbox"/> 6. Change in course credit/type	<input type="checkbox"/> 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 29000

TERMS OFFERED: Check All That Apply: Summer Fall Spring

CAMPUS(ES) INVOLVED: Calumet N Central Cont Ed Tech Statewide Ft Wayne W. Lafayette Indianapolis

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

CREDIT TYPE: 1. Fixed Credit: Cr. Hrs. 2 2. Variable Credit Range: Minimum Cr. Hrs. To Or Maximum Cr. Hrs. 3. Equivalent Credit: Yes No LAM

COURSE ATTRIBUTES: Check All That Apply: 1. Pass/Not Pass Only 2. Satisfactory/Unsatisfactory Only 3. Repeatable 4. Credit by Examination 5. Fees Coop Lab Rate Request 6. Registration Approval Type Department Instructor 7. Variable Title 8. Honors 9. Full Time Privilege 10. Off Campus Experience

Schedule Type	Minutes Per Mtg	Meetings Per Week	Weeks Offered	% of Credit Allocated
Lecture	50	2	16	50
Recitation				
Presentation				
Laboratory				
Lab Prep				
Studio				
Distance				
Clinic				
Experiential				
Research				
Ind. Study				
Pract/Observ				

Cross-Listed Courses

RECEIVED

APR 29 2014

OFFICE OF THE REGISTRAR

COURSE DESCRIPTION (INCLUDE REQUISITES/RESTRICTIONS): 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. Prerequisite: CEM 19100.

*COURSE LEARNING OUTCOMES 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, skills, and modern engineering tools necessary for engineering practice.

Calumet Department Head	Date	Calumet School Dean	Date
Fort Wayne Department Head	Date	Fort Wayne School Dean	Date
Indianapolis Department Head	Date	Indianapolis School Dean	Date
North Central Faculty Senate Chair	Date	Vice Chancellor for Academic Affairs	Date
West Lafayette Department Head	Date	West Lafayette College/School Dean	Date
		West Lafayette Registrar	Date

Handwritten signatures and dates: 3/24/14, 4/29/14, 5/15/14

OFFICE OF THE REGISTRAR

LAM 5/1/14