**Department:** Division of Construction Engineering and Management  
**Effective Session:** Spring 2017 (201026)  
**Proposed:**

<table>
<thead>
<tr>
<th>Subject Abbreviation</th>
<th>Course Number</th>
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<tbody>
<tr>
<td>CEM</td>
<td>32400</td>
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**Existing:**

<table>
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<tr>
<th>Subject Abbreviation</th>
<th>Course Number</th>
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</thead>
</table>

**Terms Offered:**

Check All That Apply

- Summer
- Fall
- Spring

**Campus(es) Involved:**

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

**Course Title:** Human Resource Management in Construction

**Prerequisite:** CEM 29100 Construction Internship II

Introduce a broad set of fundamental topics regarding management of people in engineering and construction organizations in the U.S. Subjects include labor-management relations; worker motivation, productivity, and training; roles and practices of managers; construction safety; management of quality.

**Course Learning Outcomes:**

- Students will enhance communication skills and understand managerial aspects of the engineering and construction industry.
- Upon successful completion of this course, students will gain knowledge in:
  - the background, principal laws and practices concerning labor-management relations for union and nonunion jobs.
  - current management practices involving worker supply and demand, workforce training, EEO and workforce diversity, professional ethics and construction safety.
  - how to become an effective manager in engineering and construction organizations.

**Schedule:**

<table>
<thead>
<tr>
<th>Lecture</th>
<th>Practice</th>
<th>Laboratory</th>
<th>Lab Prep</th>
<th>Studio</th>
<th>Distance</th>
<th>Clinic</th>
<th>Experiential</th>
<th>Research</th>
<th>Ind. Study</th>
<th>Pract/Oberv</th>
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**Credit Type:**

<table>
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<tr>
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<th>Credit Hours</th>
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<tbody>
<tr>
<td>1. Fixed Credit</td>
<td>3.0</td>
</tr>
<tr>
<td>2. Variable Credit Range</td>
<td></td>
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</table>

**Course Attributes:**

- 0 Registration Approval Type
- Department
- Instructor
- 7 Variable Title
- 8 Honors
- 9 Full Time Privilege
- 10 Off Campus Experience

**Course Description (Include Requires/Restrictions):**

**Prerequisite:** CEM 29100 Construction Internship II

Introduce a broad set of fundamental topics regarding management of people in engineering and construction organizations in the U.S. Subjects include labor-management relations; worker motivation, productivity, and training; roles and practices of managers; construction safety; management of quality.

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  - how to become an effective manager in engineering and construction organizations.

**Notes:**

- Cross-Listed Courses

**Office of the Registrar**

**Date:** 2017
**PURDUE UNIVERSITY**

REQUEST FOR ADDITION, Expiration, or Revision of an Undergraduate Course (10000-49999 Level)

**DEPARTMENT**: Division of Construction Engineering and Management  
**EFFECTIVE SESSION**: Spring 2012 (2013-2014)

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

- [ ] New course with supporting documents
- [ ] Add existing course offered at another campus
- [ ] Expansion of a course
- [ ] Change in course number
- [ ] Change in course title
- [ ] Change in course credit type
- [ ] Change in course attributes (department head signature only)
- [ ] Change in instructional hours
- [ ] Change in course description
- [ ] Change in course requisites
- [ ] Change in course offerings (department head signature only)
- [ ] Transfer from one department to another

**PROPOSED**:  
- Subject Abbreviation: CEM  
- Course Number: 32400  
- Long Title: Human Resource Management in Construction  
- Short Title: Human Resource Mgmt in Constr

**EXISTING**:  
- Subject Abbreviation:  
- Course Number:  
- Long Title:  
- Short Title:  

**TERMS OFFERED**:  
- Check All That Apply: Fall  
- CAMPUS(ES) INVOLVED:  
- Check All That Apply:
  - Column: N. Central
  - Cont Ed: Tech Statewide
  - Ft. Wayne: W. Lafayette
  - Indianapolis: 

**COURSE ATTRIBUTES**: Check All That Apply:

<table>
<thead>
<tr>
<th>1. Factual Credit: Or. Hrs.</th>
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<tbody>
<tr>
<td>2. Variable Credit Range:</td>
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<tr>
<td>Minimum Cr. Hrs. (Check One) To</td>
<td>Or</td>
</tr>
<tr>
<td>Maximum Cr. Hrs.</td>
<td></td>
</tr>
<tr>
<td>3. Equivalent Credit: Yes</td>
<td>No</td>
</tr>
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</table>

**COURSE DESCRIPTION (INCLUDE REQUIREMENTS/RESTRICTIONS):**

Prerequisite: CEM 29100 Construction Internship II

Introduce a broad set of fundamental topics regarding management of people in engineering and construction organizations in the U.S. Subjects include labor-management relations; worker motivation, productivity, and training; roles and practices of managers; construction safety, management of quality.

**COURSE LEARNING OUTCOMES**

Students will enhance communication skills and understand managerial aspects of the engineering and construction industry. Upon successful completion of this course, students will gain knowledge in:

* the background, principal laws and practices concerning labor-management relations for union and nonunion jobs.
* current management practices involving worker supply and demand, workforce training, EEO and workforce diversity, professional ethics and construction safety.
* how to become an effective manager in engineering and construction organizations.

**Column/Department Head**

<table>
<thead>
<tr>
<th>[Signature]</th>
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<td>Date</td>
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</table>

**INFORMATION SYSTEMS**

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<th>[Signature]</th>
<th>Date</th>
</tr>
</thead>
</table>

**OFFICE OF THE REGISTRAR**
TO: The Faculty of the College of Engineering

FROM: Division of Construction Engineering and Management

RE: New Undergraduate Course CEM 32400
Human Resource Management in Construction

The Faculty of the Division of Construction Engineering and Management (CEM) has approved the following new course listed below. This action is now submitted to the Engineering Faculty with recommendation for approval.

CEM 32400 Human Resource Management in Construction
Sem. 1, Lecture 3, cr.3.
Prerequisite: CEM 29100 - Construction Internship II and
CEM 30100 - Project Control & Life Cycle Execution of Constructed Facilities
or Department Permission

Description: Introduce a broad set of fundamental topics regarding management of people in engineering and construction organizations in the U.S. Subjects include labor-management relations (laws, regulations and practices affecting construction workers and organizations); worker motivation, productivity, and training; roles and practices of managers; construction safety; management of quality.

Reason: This course will be taught in fulfillment of the Construction Engineering (CNE) degree requirements and will serve as a key component of the Construction Engineering undergraduate curriculum. This course is being taught as CEM 49700 and will continue to be offered in the Fall semester. The syllabus for the proposed course is attached. CEM majors must enroll in this course to fulfill degree requirements.

Makarand Hastak, Professor and Head
Division of Construction Engineering and Management

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

ECC Minutes #21
Date 3/30/10
Chairman ECC R. Cipri
CEM 497 -005: HUMAN RESOURCE MANAGEMENT IN CONSTRUCTION
COURSE SYLLABUS, FALL 2009

Class at 12:30-1:20 P.M. Civ 3153 Monday, Wednesday, Friday

Instructor: Victor Gervais, P.E.
Office: Rm. CIVL 1233; Ph: 494-0642; email: vgervais@purdue.edu
Office hours: by appointment, schedule on office door

Teaching Assistant: Eun Ho (Daniel) Oh
Office: Rm. CIVL 1255; Ph: 494-0696; Email: ohe@purdue.edu
Office Hours: TBA

A. COURSE DESCRIPTION, CEM 497 -005

Introduce a broad set of fundamental topics regarding management of people in engineering and construction organizations in the U.S. Subjects include labor-management relations (laws, regulations and practices affecting construction workers and organizations); worker motivation, productivity, and training; roles and practices of managers; construction safety; management of quality.

B. REQUIRED TEXTS

   Note: Textbooks 1 and 2 are bundled together for a single price.

C. Supplementary References

D. Vista Blackboard section CEM 497-005 is set up for this course. Lecture notes are available there.

E. OBJECTIVES FOR THE COURSE

1. Understand managerial aspects of the engineering and construction industry.
2. Know the background and the principal laws and practices concerning labor-management relations for union and nonunion jobs.
3. Know current management practices involving worker supply and demand, workforce training, EEO and workforce diversity, professional ethics and construction safety.
4. Gain basic knowledge to help you become an effective manager in engineering and construction organizations.
5. Enhance communication skills.

F. STUDENT REQUIREMENTS -- ATTENDANCE AND CONDUCT

Attendance: Students are expected to be present for every meeting of class. In CEM 497-005 attendance will be taken. You are expected to have NO MORE THAN TWO UNEXCUSED ABSENCES. Three unexcused absences will result in a course grade reduction of one letter grade. Four unexcused absences will result in a grade of "F" or "I".

You must request my approval in advance for any excused absence from class, except in case of a bona fide emergency. To gain approval for an excused absence, submit to me a written or e-mailed memorandum. The request should state the day of and the reason for the absence and attach any supporting information. If you will be absent, you must arrange to obtain any handouts distributed in class on the day of absence.

Quizzes, team assignments, exams and other graded work, which is missed due to unexcused absence, cannot be made up.

G. GRADING

<table>
<thead>
<tr>
<th></th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Homework</td>
<td>15</td>
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<tr>
<td>Quizzes</td>
<td>15</td>
</tr>
<tr>
<td>Exam I</td>
<td>20</td>
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<tr>
<td>Exam II</td>
<td>20</td>
</tr>
<tr>
<td>Exam III</td>
<td>20</td>
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<tr>
<td>Leadership Project</td>
<td>10</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Grade requirements:

A = 90 and above
80 <= B < 90
70 <= C < 80
60 <= D < 70
F < 60

H. LEADERSHIP PROJECT

Teams will be assigned to represent management.

Teams will be assigned to represent a Local of an International Union.
Each management team and each Local negotiating committee will negotiate a project collective bargaining agreement.

I. HOMEWORK

Timeliness: Homework is due at the beginning of class on the date due. Late homework not turned in by class period but by 5:00 p.m. that same day will receive up to 80 percent of the assigned value. Homework turned in within three class days of the due date will be further devalued at 10 percent per day. Homework more than three days late will receive a maximum of 50 percent of assigned value. Homework will be given a zero after 1 week.

Formats: A written homework paper must constitute an independent, "stand-alone" document when submitted. A statement of the problem or question should appear first, followed by the student's complete response or answer. Properly written homework papers can be read by a third party, for analysis or grading, without reference to any text, assignment sheet or other information. Paper torn from spiral-bound notebooks will not be accepted at any time.

* Essay-type papers: see Attachment A.

* Point Papers: see Attachment B.

Word processing: Students are expected to be competent at word processing, including spell-checks. Thorough proofreading of each hand-in assignment is expected.

References: Your written work, where not your original work, must be referenced. Example of a CORRECT reference:

"...the Court concluded, 'We think there is no question that the charges were adequately supported.' [Boilermakers vs. Hardeman, 123 U.S. 516 (1971)]" (1)

References:

Example of an incorrect reference: "...according to the text, the charges were adequately supported."
ATTACHMENT A. FORMAT FOR ESSAY-TYPE WRITTEN ASSIGNMENTS,
CEM 497 -005

Written, essay-type assignments will be submitted with a memorandum heading. This
format is commonly practiced in the engineering and construction industry. Use the format
below in this course.

MEMORANDUM

TO: Victor P. Gervais
FROM: Constant A. Lerner, CEM 497 -005 (initialed)
DATE: November 15, 2009
SUBJECT: Current Events in Construction Labor Activities

ALWAYS STATE THE QUESTION OR PROBLEM FIRST.

The SUBJECT statement (above) should be concise – use the fewest words needed to identify
the subject clearly.

The student should format the body of the memorandum (the essay) according to good writing
practice and to the nature of the subject and the problem statement. Avoid the common error of
excessively lengthy paragraphs.

For most essay assignments, a summary and conclusion paragraph is appropriate and necessary.

To produce a written essay of the best quality, I encourage you to ask someone to review your
draft or proposed final text and recommend improvements. From a “second set of eyes” you can
improve the content, analysis, and logic of your writing, as well as your presentation (grammar,
syntax, etc.)
ATTACHMENT B. POINT PAPERS
The Point Paper is used for a specific purpose: to convey concisely (always one page in this course) the facts and the writer's conclusion about a single issue or topic. Usually the Point Paper is a condensation of considerably more information and analysis known by the writer. It provides a means of communicating to the busy reader a credible, logically supported conclusion with concise supporting background and rationale.

The format for Point Papers in this course follows:

SUBJECT: Format for Point Papers
FROM: Constant A. Lerner (initialed)
DATE: November 15, 2009

BACKGROUND

- "Bullet format" (very short sentences, one thought per point) is used in a Point Paper.
- Background includes all salient facts necessary for understanding the issue.
- Writer provides the most efficient written communication possible; no relevant facts are omitted, no excessive words are used.
- Background normally requires 1/4 to 1/3 page.

DISCUSSION

- Discussion provides writer's analysis of the facts.
- A cogent, logical series of concise observations that support the conclusion should be provided.
- Discussion normally requires 1/3 to 1/2 page.
- After Conclusion is written, check that it is fully supported in Discussion.

CONCLUSION(S)

- Normally a single subject; rarely more than one sentence.
- More than one line may be used if more than one independent conclusion is appropriate.

RECOMMENDATION

- For CEM 497 -005, normally NO "Recommendation" will be appropriate.
- In "Real world" Point Papers, a "Recommendation" is essential.
<table>
<thead>
<tr>
<th>WEEK</th>
<th>LECTURE TOPIC</th>
<th>ASSIGNED READINGS/IMPORTANT DATES</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEEK 1</td>
<td>Course introduction &amp; administration Organized labor, U.S. industrial relations system</td>
<td>Sloane &amp; Whitney Chapter 1</td>
</tr>
<tr>
<td>WEEK 2</td>
<td>History of Unions Introduction to labor law</td>
<td>Chapter 2,3</td>
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<tr>
<td>WEEK 3</td>
<td>Union structure Union organization, NLRB</td>
<td>Chapter 3,4 Quiz 1</td>
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<td>WEEK 4</td>
<td>Labor contracts Collective bargaining</td>
<td>Chapter 5 Labor-Management Relations (PDF)</td>
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<td>WEEK 5</td>
<td>Grievances, arbitration Workforce motivation &amp; incentives</td>
<td>Chapter 6 Quiz 2</td>
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<td>WEEK 6</td>
<td>Workforce motivation</td>
<td>EXAM 1</td>
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<td>WEEK 7</td>
<td>Nonunion employers, wages, benefits</td>
<td>Chapter 7 Making Davis-Bacon Work (PDF)</td>
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<td>WEEK 8</td>
<td>Benefits and administering the agreement</td>
<td>Chapter 8,9 Quiz 3</td>
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<td>WEEK 9</td>
<td>Collective Bargaining Exercise (Leadership Project)</td>
<td>Chapter 10</td>
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<td>WEEK 10</td>
<td>Diversity, Hiring rules</td>
<td>Kouzes &amp; Posner Chapter 1 - 4 Quiz 4</td>
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<td>WEEK 11</td>
<td>Leadership, management skills</td>
<td>Chapter 5 - 9 EXAM 2</td>
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<td>WEEK 12</td>
<td>Leadership, management skills</td>
<td>Chapter 10 - 13</td>
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<td>WEEK 13</td>
<td>Leadership, management skills</td>
<td>Safety and Health Instructional Module (PDF) Quiz 5</td>
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<td>WEEK 14</td>
<td>Management of Construction safety</td>
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<td>WEEK 15</td>
<td>Quality Management in construction</td>
<td>Ethics Handout (PDF)</td>
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<td>WEEK 16</td>
<td>Guest Speaker (Construction CEO) Ethics in engineering</td>
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