TO: The Faculty of the College of Engineering
FROM: The Faculty of the Division of Construction Engineering and Management
RE: New Course - CEM 32100 Construction Engineering Materials Lab

The faculty of the Division of Construction Engineering and Management has approved the following new course. This action is now submitted to the Engineering Faculty with a recommendation for approval.

Course no. CEM 32100 Construction Engineering Materials Lab
Semester 1, Lab 1, Cr. 1
Prerequisite: CE 23100 Engineering Materials I

Description: CEM 32100 will cover the nature and performance of materials under load stress. Important engineering materials for evaluation of physical and mechanical properties include ferrous and nonferrous metals, plastics, bituminous materials, Portland cement, aggregates, concrete, timber, and particulate systems.

Reason: CEM 32100 has been offered since the spring of 2012 as CEM 49700 CEM Materials Lab. The experimental version has been required and the Faculty has determined the course should be a permanent fixture in the Plan of Study in Construction Engineering.

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 49700-011
CONSTRUCTION MATERIALS Lab
Fall Semester 2013

Prerequisite or co-requisite: CE231 Eng. Materials

The nature and performance of materials under load stress. Important engineering materials for evaluation of physical and mechanical properties include ferrous and nonferrous metals, plastics, bituminous materials, Portland cement, aggregates, concrete, timber, and particulate systems.

**Oversight Instructor:** Victor Gervais, P.E.
Room: 1233
Civil Engineering Building
Phone: 494-0642
Email: vgervais@purdue.edu

**Lab Meeting:** Wednesday 11:30 am - 1:20 pm    Lab: CIVL G150A

**Lab Teaching Assistant:** Kho Pin Verian
Room: G223
Civil Engineering Building
Office hours: Monday 10:00 am – 11.00 am
Phone: 494-6634
Email: kverian@purdue.edu


**References:**


4. In class handouts.
Objectives:  A. Evaluate the behavior and properties of engineering materials.

B. Assess the nature and performance of materials under load: Theory vs. Reality.

C. Facilitate the understanding of the strength and weakness of major construction engineering materials and their application.

D. Design and conduct experiments, and analyze and interpret data.

Attendance: One unexcused absence will result in 5 points off your final grade. Two unexcused absences will result in 10 points off your final grade. More than three unexcused absences will result in a grade of "I" or "F", depending on whether or not the student is passing in all other aspects at the time of the fourth absence. A plant trip is not an excused absence.

Lab Reports After 7:30 a.m., 10% penalty
After Lab, 20% penalty for late lab report
One calendar day, 30% penalty for late lab report
2-4 calendar days, 50% penalty for late lab report
Five or more calendar days, 100% penalty for late lab report

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<tr>
<th>CEM 49700 LAB</th>
<th>TENTATIVE SCHEDULE</th>
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Office of the Registrar
FORM 42 REV. 5/11

PURDUE UNIVERSITY
REQUEST FOR ADDITION, EXPIRATION,
OR REVISION OF AN UNDERGRADUATE COURSE
(10000-40000 LEVEL)

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

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: 32100
Long Title: Construction Engineering Materials Lab
Short Title: Construction Eng Mat Lab

EXISTING:

Subject Abbreviation
Course Number

TERMS OFFERED:

☐ Summer ☐ Fall ☐ Spring

CAMPUS(ES) INVOLVED:

☐ Calumet ☐ N. Central
☐ Cont Ed ☐ Tech Statewide
☐ Ft. Wayne ☐ V. L'ayestle
☐ Indianapolis

CREDIT TYPE:

1. Fixed Credit Cr. Hrs: [ ]
2. Variable Credit Range: [ ]
   Minimum Cr. Hrs: [ ]
   Maximum Cr. Hrs: [ ]
   (Check One) To ☐ Or ☐ Yes ☐ No ☐
  Equivalent Credit: [ ]

COURSE ATTRIBUTES: Check All That Apply:

☐ 1. Pass/No Pass Only
☐ 2. Satisfactory/Unsatisfactory Only
☐ 3. Repeatable
☐ 4. Credit by Examination
☐ 5. Fees ☐ Tuition ☐ Lab Rate Request
☐ 6. Registration Approval Type
   ☐ Department ☐ Instructor

.getTimeStamp()

COURSE DESCRIPTION (INCLUDE REQUESTS/RESTRICTIONS):

The nature and performance of materials under load stress. Important engineering materials for evaluation of physical and mechanical properties include ferrous and nonferrous metals, plastics, bituminous materials, Portland cement, aggregates, concrete, timber, and particulate systems. Prerequisite: CE 23100

COURSE LEARNING OUTCOMES:

A. Evaluate the behavior and properties of engineering materials. B. Assess the nature and performance of materials under load: Theory vs. Reality. C. Facilitate the understanding of the strength and weakness of major construction engineering materials and their application. D. Design and conduct experiments, and analyze and interpret data.

Catapult Department Head Date
Catapult School Dean Date

Fort Wayne Department Head Date
Fort Wayne School Dean Date

Indianapolis Department Head Date
Indianapolis School Dean Date

North Central Indiana South Campus Date
Vice Chancellor for Academic Affairs Date

West Lafayette Department Head Date
West Lafayette School Dean Date

OFFICE OF THE REGISTRAR