

## APPLICATION FOR NEW COURSE

### 1. General Information.

- a. Submitted by the College of: Engineering Today's Date: 12/01/09
- b. Department/Division: Civil Engineering
- c. Contact person name: Scott A. Yost Email: yostsa@engr.uky.edu Phone: 257-4816
- d. Requested Effective Date:  Semester following approval OR  Specific Term/Year<sup>1</sup>: \_\_\_\_\_

### 2. Designation and Description of Proposed Course.

- a. Prefix and Number: CE195
- b. Full Title: Independent work in pre-Civil Engineering
- c. Transcript Title (if full title is more than 40 characters): Indep work in pre-CE.
- d. To be Cross-Listed<sup>2</sup> with (Prefix and Number): \_\_\_\_\_

- e. Courses must be described by at least one of the meeting patterns below. Include number of actual contact hours<sup>3</sup> for each meeting pattern type.

\_\_\_\_\_ Lecture      \_\_\_\_\_ Laboratory<sup>1</sup>      \_\_\_\_\_ Recitation      \_\_\_\_\_ Discussion      X Indep. Study  
\_\_\_\_\_ Clinical      \_\_\_\_\_ Colloquium      \_\_\_\_\_ Practicum      \_\_\_\_\_ Research      \_\_\_\_\_ Residency  
\_\_\_\_\_ Seminar      \_\_\_\_\_ Studio      \_\_\_\_\_ Other – Please explain: \_\_\_\_\_

- f. Identify a grading system:  Letter (A, B, C, etc.)       Pass/Fail

- g. Number of credits: 0-4

- h. Is this course repeatable for additional credit? YES  NO

If YES: Maximum number of credit hours: 4

- If YES: Will this course allow multiple registrations during the same semester? YES  NO

- i. Course Description for Bulletin: Independent or make-up work for lower division engineering students in the field of civil engineering. May be repeated for a maximum of four credit hours. Prereq: admission to the college of engineering and consent of department chair or DUS, and the instructor.

- j. Prerequisites, if any: Admission to the College of Engineering and consent of department chair or DUS, and the instructor.

- k. Will this course also be offered through Distance Learning? YES<sup>4</sup>  NO

- l. Supplementary teaching component, if any:  Community-Based Experience       Service Learning       Both

3. Will this course be taught off campus? YES  NO

### 4. Frequency of Course Offering.

<sup>1</sup> Courses are typically made effective for the semester following approval. No course will be made effective until all approvals are received.

<sup>2</sup> The chair of the cross-listing department must sign off on the Signature Routing Log.

<sup>3</sup> In general, undergraduate courses are developed on the principle that one semester hour of credit represents one hour of classroom meeting per week for a semester, exclusive of any laboratory meeting. Laboratory meeting, generally, represents at least two hours per week for a semester for one credit hour. (from SR 5.2.1)

<sup>4</sup> You must also submit the Distance Learning Form in order for the proposed course to be considered for DL delivery.

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- a. Course will be offered (check all that apply):       Fall       Spring       Summer
- b. Will the course be offered every year?      YES       NO   
If NO, explain: \_\_\_\_\_
5. Are facilities and personnel necessary for the proposed new course available?      YES       NO   
If NO, explain: \_\_\_\_\_
6. What enrollment (per section per semester) may reasonably be expected?      3
7. Anticipated Student Demand.
- a. Will this course serve students primarily within the degree program?      YES       NO
- b. Will it be of interest to a significant number of students outside the degree pgm?      YES       NO   
If YES, explain: \_\_\_\_\_
8. Check the category most applicable to this course:
- Traditional – Offered in Corresponding Departments at Universities Elsewhere
- Relatively New – Now Being Widely Established
- Not Yet Found in Many (or Any) Other Universities
9. Course Relationship to Program(s).
- a. Is this course part of a proposed new program?      YES       NO   
If YES, name the proposed new program: \_\_\_\_\_
- b. Will this course be a new requirement<sup>5</sup> for ANY program?      YES       NO   
If YES<sup>5</sup>, list affected programs: \_\_\_\_\_
10. Information to be Placed on Syllabus.
- a. Is the course 400G or 500?      YES       NO   
If YES, the *differentiation for undergraduate and graduate students must be included* in the information required in 10.b. You must include: (i) identification of additional assignments by the graduate students; and/or (ii) establishment of different grading criteria in the course for graduate students. (See SR 3.1.4.)
- b.  The syllabus, including course description, student learning outcomes, and grading policies (and 400G-/500-level grading differentiation if applicable, from 10.a above) are attached.

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<sup>5</sup> In order to change a program, a program change form must also be submitted.

# APPLICATION FOR NEW COURSE

## Signature Routing Log

**General Information:**


Course Prefix and Number: CE195

Proposal Contact Person Name: Scott A. Yost Phone: 257-4816 Email: yostsa@enr.uky.edu

**INSTRUCTIONS:**

Identify the groups or individuals reviewing the proposal; note the date of approval; offer a contact person for each entry; and obtain signature of person authorized to report approval.

**Internal College Approvals and Course Cross-listing Approvals:**

Reviewing Group	Date Approved	Contact Person (name/phone/email)	Signature
CE Undergraduate Team	1/29/10	N Stamatiadis / 257-8012 / nstamat@enr.uky.edu	
CE faculty	2/1/10	George Blandford / 257-1855 / gebland@enr.uky.edu	
COE faculty	3/26/10	Rick Sweigard / 257-1687 / rsweigard@enr.uky.edu	
		/ /	
		/ /	

**External-to-College Approvals:**

Council	Date Approved	Signature	Approval of Revision <sup>6</sup>
Undergraduate Council	4/27/2010		
Graduate Council			
Health Care Colleges Council			
Senate Council Approval		University Senate Approval	

Comments:

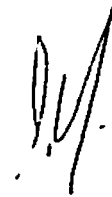
\_\_\_\_\_

6 Councils use this space to indicate approval of revisions made subsequent to that council's approval, if deemed necessary by the revising council.

DATE: December 1, 2009

MEMORANDUM

TO: George Blandford, Chair, Department of Civil Engineering  
FROM: Scott A. Yost, DUS, Department of Civil Engineering  
RE: Creating a new independent study course for pre-CE majors.



Attached is the new course application for CE195, Independent Work in pre-Civil Engineering. The primary purpose of this new course is for electronic tracking of students' course requirements that partially transfer into the department of civil engineering. As you know transfer students come to us with various academic experiences and courses. Some of those courses are similar, but not equivalent, to a course used to fulfill our program requirements. At times we have required students to study a portion of a course, and not the whole course, in order to receive transfer credit. Keeping a record of this requirement is neither standardized nor automated. Hence I am proposing that we establish CE195 to help us, and the students, track requirements. It is anticipated that students would sign up for CE195 in one of four ways:

- 1) CE195 Independent Work in pre-Civil Engineering – Surveying (1-2 credits): Transfer students may have had some surveying course, but no exposure to all the topic UK requires in the 4 credit hour CE211, Surveying course. Rather than having the student duplicates his/her past efforts, we ask that they study only the deficient portion as part of the work requirements. Upon successful completion of this CE195, they will receive credit for CE211 using previous surveying coursework and the completed CE195 course work.
- 2) CE195 Independent Work in pre-Civil Engineering – CE overview (0 credits): Transfer students may have had some introduction to engineering, but is not familiar with UK and/or UKCE. Rather than having the student sign up and take our CE120, Introduction to Civil Engineering, course (1 credit), we ask that they attend the sessions

on topics relevant to UK and/or UKCE. Upon successful completion of this CE195, CE120 will be waived.

3) CE195 Independent Work in pre-Civil Engineering – Graphics (1 credit): Transfer students may have had some computer graphics course, but not educated in the topics and/or software we require in our 3 credit hour CE 106, Computer Graphics and Communication course. Rather than having the student duplicate his/her past efforts, we ask that they study only the deficient areas. Upon successful completion of this CE195, they will receive transfer credit for CE106 using previous graphics course work and the completed CE195 course work.

4) CE195 Independent Work in pre-Civil Engineering (1-3 credits). This is in case a faculty member would like to participate with a pre-CE student in some type of research or other academic work. While this is not likely, the possibility still exists and hence CE195 will allow for official recognition. After students attain engineering standing, CE195 no longer applies and CE395 can be used for this purpose and also count as a technical elective.

As this proposed course is not really a course, it is anticipated the CE Independent Work agreement/form will be modified to include CE195 alternative (attached is a sample). If you have any questions, please feel free to contact me.



## **CE120 INTRODUCTION TO CIVIL ENGINEERING**

Department of Civil Engineering  
University of Kentucky  
Spring 2010, W4-5:50PM, FPAT259

*Instructor:* Dr. Mei Chen  
*Email:* mei.chen@uky.edu  
*Office Hours:* TR 11AM-12PM EST by appointment

*Office:* OHR267  
*Phone:* 859-257-9262

*TA:* Mr. Scott Embry  
*Email:* bryan.embry@uky.edu  
*Office Hours:* MW 1PM-2PM EST

*Office:* FPAT016  
*Phone:* 859-257-5927

### **REFERENCES**

- William C. Oakes, Les L. Leone and Craig J. Gunn, *Engineering Your Future: A Comprehensive Approach*, Fifth Edition, Great Lakes Press, Inc., St. Louis, MO, 2006.
- Heather Silyn-Roberts, *Professional Communications: A Handbook for Civil Engineers*, ASCE Press, Reston, VA, 2005.
- David Beer and David McMurrey, *A Guide to Writing as an Engineer*, John Wiley & Sons, New York, NY, 2010.
- Clive L. Dym and Patrick Little, *Engineering Design: A Project-Based Introduction, 2<sup>nd</sup> Edition*, John Wiley & Sons, Hoboken, NJ, 2004.

### **COMMUNICATION**

Email will be used for official communication outside the classroom. Students are expected to check their email at least once a day. Your UK email account should be used for correspondence.

### **DESCRIPTION**

This course is an introduction to the civil engineering profession and the civil engineering program at the University of Kentucky. Coverage includes curriculum, library resources, co-operative education opportunities, and the future of civil engineering. In addition, you will use computer hardware and software for CE systems analysis and design. Presentations will be used to illustrate the conception, design, construction, and operation processes. Sample problems and class exercises in some technical areas of civil engineering will make use of existing computer software packages and teamwork principles.

### **OBJECTIVES**

The goal of this introductory civil engineering course is to help students get familiar with the basics of the discipline and the program at UK, as well as resources that help you do well. The specific objectives associated with the goal are:

1. Review civil engineering program at UK;
2. Success strategies in the classroom;
3. Introduction to the profession of civil engineering and its sub-disciplines;

4. Introduction to engineering design including analytical techniques, teamwork, creative expression, and open-ended problem solving; and
5. Discussion of professionalism including educational requirements, professional licensure, professional ethics, and resumes.

### **LEARNING OUTCOMES**

- An understanding of the civil engineering program.
- An understanding of the civil engineering profession.
- An understanding of various CE sub-disciplines.
- An understanding of civil engineering ethics.
- An understanding of life-long learning.
- Basic learning and project team skills.

### **GENERAL POLICY**

#### **Attendance**

Attendance to this class is mandatory. Attendance will be taken at each class. Late arrival beyond 10 minutes is considered as absence. Each student is allowed to have one unexcused absence during the entire semester. The University of Kentucky definition of excused absences will be followed.

Students missing work due to an excused absence bear the responsibility of informing the instructor about their excused absence and provide proper verification. Notification must be given within one week following the period of the excused absence, except where prior notification is required.

#### **Homework**

Homework will be assigned throughout the semester and will be graded by the TA. Homework needs to be submitted at the beginning of the class on the due date. Late homework is not acceptable except for an excused absence. All written assignments must be word-processed.

### **GRADING POLICY**

Attendance	40%	90-100	A
Homework	20%	80-89	B
Quizzes	20%	70-79	C
Group Project	10%	60-69	D
Group Presentation	10%	<60	E

### **ACADEMIC INTEGRITY**

Students are expected to abide by the policies of the university and the College of Engineering, especially those with respect to academic integrity. All incidents of academic dishonesty will be reported to the Dean's office.



**TENTATIVE SCHEDULE**

In case there is a need to deviate from the schedule, announcements will be made in advance.

<b>Date</b>	<b>Topics</b>
Jan 13	No class
Jan 20	Introduction; Civil engineering overview
Jan 27	Engineering co-op (Ilka Balk); Resume exercise (Megan Boone); International experience (Ilka Balk)
Feb 3	Library resources (Sue Smith)
Feb 10	CE curriculum (Dr. Yost)
Feb 17	Success in classroom; Teamwork; Email etiquette
Feb 24	Student organizations (ASCE, KSPE, ITE, XE)
Mar 3	CE topics – Structural engineering (Dr. Harik); Geotechnical engineering (Dr. Bryson)
Mar 10	CE topics – Transportation engineering (Dr. Chen); Construction engineering (Dr. Goodrum)
Mar 17	No class – Spring break
Mar 24	CE topics – Material engineering and railroad engineering (Dr. Rose)
Mar 31	CE topics – Environmental engineering and sustainability (Andy Dastidar); Water resources (Dr. Fox)
Apr 7	Design and construction integration (Dr. Taylor)
Apr 14	Financial aid (Christina Dillon)
Apr 21	Plan, design, and build – class presentation
Apr 28	Professional ethics and licensure (David Cox); Course evaluation

### **ABET - Professional Component Contribution**

CE 120 is designed to teach incoming civil engineering students various aspects of civil engineering profession and academic success strategies. This includes team skills, program success strategies, campus resources, ethics, engineering licensing, and presentations on CE sub-disciplines.

## **ABET Outcomes**

**(c) An ability to design a system, component, or process to meet desired needs.**

1. Graduates have design competence.

**(d) An ability to function on multi-disciplinary teams.**

1. Graduates are able to articulate teamwork principles.

**(f) An understanding of professional and ethical responsibility.**

1. Graduates understand the principles of ethical decision making and can interpret the ASCE Code of Ethics.
2. Graduates will understand the proper use of the work of others (e.g., plagiarism, copyrights, and patents).
3. Graduates will understand the special duty they owe to protect the public's health, safety and welfare by virtue of their professional status as engineers in society.

**(g) An ability to communicate effectively.**

1. Graduates are able to produce engineering reports using written, oral and graphic methods of communication.

**(h) The broad education necessary to understand the impact of engineering solutions in a global and societal context.**

2. CE courses will include information on how engineering solutions affect the quality of life and the physical environment.

**(i) A recognition of the need for, and an ability to engage in life-long learning.**

1. Graduates realize that a BSCE degree is the beginning of their professional education.
2. Students will be encouraged to be active members in professional societies.

**(j) A knowledge of contemporary issues.**

1. Students are aware of emerging technologies and current professional issues.