Course Information

Date Submitted: 1/18/2013

Current Prefix and Number: BAE - Biosystems &Ag Engineering , BAE 532 - INTRO TO STREAM RESTORATION

Other Course:

Proposed Prefix and Number:

What type of change is being proposed?

Major – Add Distance Learning

Should this course be a UK Core Course? No

1. General Information

a. Submitted by the College of: College of Engineering

b. Department/Division: Engineering

c. Is there a change in 'ownership' of the course? No

If YES, what college/department will offer the course instead: Select...

e. Contact Person

Name: Carmen Agouridis

Email: carmen.agouridis@uky.edu

Phone: 7-3000 x207

Responsible Faculty ID (if different from Contact)

Name:

Email:

Phone:

f. Requested Effective Date

Semester Following Approval: Yes OR Effective Semester:

2. Designation and Description of Proposed Course

a. Current Distance Learning (DL) Status: Please Add

b. Full Title: INTRODUCTION TO STREAM RESTORATION

Proposed Title: Same

c. Current Transcript Title: INTRO TO STREAM RESTORATION

Proposed Transcript Title: Same

d. Current Cross-listing: Same as CE 542

Proposed – ADD Cross-listing :

Proposed – REMOVE Cross-listing:

e. Current Meeting Patterns

LECTURE: 3

Proposed Meeting Patterns

LECTURE: 3

f. Current Grading System: ABC Letter Grade Scale

Proposed Grading System: PropGradingSys

g. Current number of credit hours: 3

Proposed number of credit hours: 3

h. Currently, is this course repeatable for additional credit? No

Proposed to be repeatable for additional credit? No

If Yes: Maximum number of credit hours:

If Yes: Will this course allow multiple registrations during the same semester? No

2i. Current Course Description for Bulletin: Introduction to principles of fluvial geomorphology for application in restoring impaired streams. Topics include channel formation processes (hydrology/ hydraulics), stream assessment, sediment transport, in-stream structures, erosion control, habitat, and monitoring.

Proposed Course Description for Bulletin: Same

2j. Current Prerequisites, if any: Prereq: CE 341 (or equivalent) and engineering standing or consent of instructor.

Proposed Prerequisites, if any: Same

2k. Current Supplementary Teaching Component:

Proposed Supplementary Teaching Component:

3. Currently, is this course taught off campus? No

Proposed to be taught off campus? No

If YES, enter the off campus address:

4. Are significant changes in content/student learning outcomes of the course being proposed? No

If YES, explain and offer brief rational:

5a. Are there other depts. and/or pgms that could be affected by the proposed change? Yes

If YES, identify the depts. and/or pgms: Civil Engineering

5b. Will modifying this course result in a new requirement of ANY program? No

If YES, list the program(s) here:

6. Check box if changed to 400G or 500: No

Distance Learning Form

Instructor Name: Carmen Agouridis

Instructor Email: carmen.agouridis@uky.edu

Internet/Web-based: Yes

Interactive Video: No

Hybrid: No

1.How does this course provide for timely and appropriate interaction between students and faculty and among students? Does the course syllabus conform to University Senate Syllabus Guidelines, specifically the Distance Learning Considerations? Students enrolled in the DL course will have the ability to communicate with the Instructor via email and/or phones (office, mobile and home) from 8:30 AM until 10:00 PM during the semester. This type of contact will ensure that students' questions are answered in a timely manner. The course will offer an on-site field techniques demonstration (optional) prior to the midterm as well as a stream restoration project tour (optional) prior to the final. Also, the course will offer optional review sessions prior to the midterm and final. Every effort was made to conform the course syllabus to the University Senate Syllabus Guidelines, specifically the Distance Learning Considerations.

2.How do you ensure that the experience for a DL student is comparable to that of a classroom-based student's experience? Aspects to explore: textbooks, course goals, assessment of student learning outcomes, etc. BAE 532 has been taught for since 2004 (BAE 599 to 2004-2006). The DL course will utilize the same text and course goals as in the non-DL class. Assessment is shifting to quizzes for each module as opposed to homeworks through the semester. The quizzes will utilize problems developed in the non-DL homework assignments. The midterm and final format will remain the same. The DL will allow the addition of videos, which were previously not included in the non-DL course. This will allow students to explore field concepts even when the weather is poor (e.g. ice, snow, rain). Optional field demonstration and stream restoration project tour will be provided.

3.How is the integrity of student work ensured? Please speak to aspects such as password-protected course portals, proctors for exams at interactive video sites; academic offense policy; etc. Quizzes will be given in Blackboard. A time limit will be set for the quizzes. Midterm and finals will be given at the Biosystems and Engineering department. These exams will be proctored. Students requiring alternate arrangements must notify the instructor two-weeks ahead of time. The exams are very thorough and constitute 40 percent of an undergraduate student's grade and 35 percent of a graduate student's grade. The exams are written such that a passing grade is not possible without the student understanding the material. With regards to an academic offense policy, such a section is included in the syllabus along with a section on cheating and plagerism.

4.Will offering this course via DL result in at least 25% or at least 50% (based on total credit hours required for completion) of a degree program being offered via any form of DL, as defined above? No

If yes, which percentage, and which program(s)? n/a

5.How are students taking the course via DL assured of equivalent access to student services, similar to that of a student taking the class in a traditional classroom setting? Information for the Blackboard Help Desk as well as a section on ADA services is included in the syllabus. Reading materials for the course will be posted on Blackboard and/or e-reserves. Technical difficulties section provided. Contact information for distance learning library services provided.

6.How do course requirements ensure that students make appropriate use of learning resources? Each module is accompanied by a quiz. Students must read the material and watch the narrated PowerPoint presentations (some accompanied with video) to pass the quizzes. Midterms and finals require a good understanding of the material. An introductory recording of this information will be placed on Blackboard.

7.Please explain specifically how access is provided to laboratories, facilities, and equipment appropriate to the course or program. Students do not require use of laboratories, facilities or equipment. During an optional field technique demonstration period, all necessary equipment will be provided.

8.How are students informed of procedures for resolving technical complaints? Does the syllabus list the entities available to offer technical help with the delivery and/or receipt of the course, such as the Information Technology Customer Service Center (http://www.uky.edu/UKIT/)? A technical difficulties section is included in the syllabus listing these groups as well as contact information and hours for the Blackboard Help Desk.

9.Will the course be delivered via services available through the Distance Learning Program (DLP) and the Academic Technology Group (ATL)? YES

If no, explain how student enrolled in DL courses are able to use the technology employed, as well as how students will be provided with assistance in using said technology. n/a

10.Does the syllabus contain all the required components? YES

11.I, the instructor of record, have read and understood all of the university-level statements regarding DL.

Instructor Name: Carmen T. Agouridis

SIGNATURE|KCROUCH|Kathryn F Crouch|College approval for ZCOURSE_CHANGE BAE 532|20121009

SIGNATURE|JMETT2|Joanie Ett-Mims|Undergrad Council approval for ZCOURSE_CHANGE BAE 532|20121009

SIGNATURE|ZNNIKO0|Roshan N Nikou|Graduate Council approval for ZCOURSE_CHANGE BAE 532|20130103

BAE 532/CE 542 Introduction to Stream Restoration
Lecture 1: Welcome to Stream Restoration

Reading Assignments

1. Chapter 1: Overview from *Restoration of Aquatic Ecosystems: Science, Technology and Public Policy*

You can download this document for free from The National Academies Press at http://www.nap.edu/openbook.php?record_id=1807&page=14. You will need to sign in to download the chapter.

2. AEN-106 *Reducing Stormwater Pollution*, page 1 only

You can download this document for free from the University of Kentucky College of Agriculture webpage at http://www.ca.uky.edu/agc/pubs/aen/aen106/aen106.pdf.

3. *Common Problems Addressed in Stream Restoration*

You can download this document for free at http://wildfish.montana.edu/docs/common_restoration_problems.pdf.

Video Assignments

1. Raleigh Stream Restoration 1 – Overview

http://www.youtube.com/watch?v=-QDRk0gDud0

2. Stream Restoration Techniques

http://www.youtube.com/watch?v=m_WUfUnTPl8

3. KDFWR Stream Restoration Program

http://www.youtube.com/watch?v=mP10ahFTb7E

BAE 532/CE 542 Introduction to Stream Restoration
Lecture 2: Fluvial Geomorphology and Ecosystem Services

Reading Assignments

1. Text - Chapter 1: *Introduction: Ecological and Physical Considerations for Stream Projects*

2. *The River Continuum Concept* by R.L. Vannote et al. 1980. Can. J. Fish. Aquat. Sci. 37: 130-137.

3. *A Model of Channel Response in Disturbed Alluvial Channels* by A. Simon. 1989. Earth Surface Processes and Landforms 14: 11-26.

Video Assignments

1. Remeandering of a Small Channelized Stream (no sound)
http://serc.carleton.edu/details/files/19084.html

2. Channelization (no sound)
http://serc.carleton.edu/details/files/19077.html

3. River Dynamics, River Restoration, Mike Kline – Vermont Rivers Program
http://www.youtube.com/watch?v=0Va7E7KOz94

4. Vermont River Meanders and Floodplains, River Restoration, part 3
http://www.youtube.com/watch?v=RQ6oyf9C8Lc

5. Reston's Stream Restoration
http://www.youtube.com/watch?v=NWyUVt4BPRY