ESF Course Proposal Form
Committee on Instruction - ESF Faculty Governance
Office of Instruction & Graduate Studies

Date: September 28, 2010
Course Number: ERE 498
Course Title: Research Problems in Environmental Resources Engineering

☐ New Course  OR  ☑ Changes in existing course (check all that apply):

☐ Prefix
☐ Number
☐ Credits
☐ Title
☐ Description
☐ Pre-requisite(s)
☐ Co-requisite(s)

Shared Resources
Course Format
Content
Semester Offered

This course meets the General Education standards in the following knowledge and skills area (check all that apply):

☐ American History
☐ The Arts
☐ Basic Communication
☐ Humanities
☐ Mathematics
☐ Natural Sciences
☐ Other World Civilizations
☐ Social Sciences
☐ Western Civilization

Prequisites or co-requisite requirements:

☐ Prerequisites:
☐ Co-requisites:

Institutional Impact:

Anticipated Enrollment: per semester

Technology and Classroom Resource Demands:

Computing Resources:

Library Resources:

Transportation Requirements:

Forest Properties or Field Practicum Facilities Required:
Health and Safety Considerations:

Conditions or situations present in association with the course?

1. Will substances with any of the following properties be used during instruction: flammability, toxicity, corrosivity, reactivity, registered pesticide, legally controlled, or other characteristics with the potential to cause harm or injury?

2. Will any physical hazards be present during instruction? (e.g., machines that need safety guards; razor blades or syringes; compressed gases, etc.).

3. Will any biological hazards be present during instruction? (e.g., handling animals (rabies or hantavirus); cultures or stocks of infectious agents (fungal spores, viruses, bacteria, etc.).

4. Will any radiation hazards be present during instruction? (e.g., radioisotopes, X-rays, ultraviolet rays, lasers, etc.).

5. Will any electrical equipment that, due to its design, location, or method of use, pose any threat to safety during instruction? (Give considerable thought to electrical use outdoors, or any potentially wet location.).

6. Will there be any personal safety issues related to the class? (e.g., due to time of day or location, at the end of any organized class exercise, will students be in danger of physical assault, etc.).

7. Will any students be driving official state or research sponsored land or water vehicles during any class or instructional exercise?

8. Will any type of personal protective equipment be necessary during class exercises? (e.g., hard-hats, eye/face protection, hearing protection, hand/foot protection, lab coat, visibility clothing, etc.)

If the answer was “Yes” to any of the HEALTH AND SAFETY questions, please explain:

CATALOG DESCRIPTION (Please provide using the precise format currently used in the ESF catalog, please do not exceed 500 characters):

ERE 498. Research Problem in Environmental Resources Engineering (1 – 3)
Independent research in topics in Environmental Resources Engineering for the highly motivated undergraduate student. Selection of subject area determined by the student in conference with appropriate faculty member. Tutorial conferences, discussions, and critiques scheduled as necessary. Fall and Spring.
Prerequisite(s): Consent of instructor
DETAILED COURSE DESCRIPTION

COURSE: ERE 498 – Research Problem in Environmental Resources Engineering
1 – 3 Credit Hours – Fall/Spring Semester
Prerequisite(s): Consent of instructor

SCOPE:

1. Level of Instruction:
   a. ERE 498 is the undergraduate equivalent to the College-wide 798 courses for graduate courses.

2. Relation to curriculum or to other ESF or Syracuse University courses:
   a. ERE 498 is designed specifically to provide an independent research experience in any one of the various subject areas represented by faculty in the department of Environmental Resources Engineering. To this degree the course may be considered a follow-up to any of our regular course offerings, enabling the qualified student to pursue an interesting subject area at the research level. We believe that the research opportunity will give the student a deeper understanding of the discipline, hopefully will kindle his interest in graduate study, and should guide him in the selection of future courses and subjects in his graduate career.

STUDENT LEARNING OUTCOMES:

A student should be able to identify a research objective, design and conduct an experiment or project, and communicate the findings.

MAJOR CONCEPTS OR METHODOLOGIES:

The initiative in taking ERE 498 will rest with the student. The exact nature of the research problem will be determined by the student in conference with the faculty member or members qualified to direct his study program. The course will be limited to those students who have the background and intellectual capacity necessary to pursue a relatively independent course of study or research. Tutorial conferences, discussions, and critiques will be scheduled as necessary. Where desirable, more than one student may arrange to investigate a similar research problem with an individual faculty member. The student’s grade in the course will be determined on the basis of the research accomplished and the quality of a written report or other form of peer-to-peer communication.

CATALOG DESCRIPTION (Please provide using the precise format to be included in the ESF catalog, please do not exceed 50 words)

ERE 498. Research Problem in Environmental Resources Engineering (1 – 3)

Independent research in topics in Environmental Resources Engineering for the highly motivated undergraduate student. Selection of subject area determined by the student in conference with appropriate faculty member. Tutorial conferences, discussions, and critiques scheduled as necessary. Fall and Spring.

Prerequisite(s): Consent of instructor

COURSE HISTORY:

This course was approved by the C of ES & F Faculty on 4/27/72 as part of a group of seminar and problems courses. Prior to this date, students desiring such courses signed up for their equivalent in Forest Management. The F Engr abbreviation was redesignated FED in August 1973, as part of the computerization of the College records.
Revised course prefix and title from FEG 498 to ERE 498.
Updated program name from Forest Engineering to Environmental Resources Engineering. Added Student Learning Outcomes, and modified the catalog description to remove requirement for storing report in Department office.

October 22, 2010