

UNIVERSITY CURRICULUM COMMITTEE

DATE OF OPEN HEARING (if necessary) 4/2/99 (College level)

APPROVED

NOT APPROVED

COMMENTS:

Deanna Reed 4/30/99
SIGNATURE DATE

SENATE

Date announced at Senate 4/30/99

Voted upon at Senate: Approved Not Approved Date:

EXECUTIVE VICE PRESIDENT/PROVOST

APPROVED

NOT APPROVED If no, reasons are as follows:

STUDENT CREDIT HOURS _____ FACULTY LOAD HOURS _____ EQUALIZED CREDIT HOURS _____

OFFICIAL COPY & APPROVAL SHEET FILED (DATE): _____

DATE/SIGNATURE EXECUTIVE VICE PRESIDENT/PROVOST C. Moor 5/30/99

REGISTRAR

DATE APPROVED COURSE DESCRIPTION RECEIVED _____

HEGIS TAXONOMY & COURSE NUMBER ASSIGNED 0900.210

DATE/SIGNATURE OF REGISTRAR Robert A. Kulot 7/6/99

NOTIFICATION FORWARD:

SENATE CURRICULUM COMMITTEE CHAIRPERSON

DEPARTMENT CHAIRPERSONS

ACADEMIC DEAN(S)

REGISTRAR

SPONSOR(S)

Course Proposal:

1. Details:

- a) Course Title: Introduction to Environmental Engineering
- b) Sponsor: Dr. Ralph Alan Dusseau and the Civil and Environmental Engineering Curriculum Committee
- c) Credit Hours) 2 credit hours
- d) Course Level: Sophomore (0908.210)
- e) Curricular Effect: Required course for all civil engineering students
- f) Prerequisites: Calculus II (1701.131), Physics I (1902.200), and Chemistry II (1906.101) or Advanced College Chemistry II (1906.106)
- g) Suggested Time and Scale of Implementation: One section each spring semester
- h) Resources:
- Faculty: Existing faculty will teach this course
 - Library : No additional acquisitions will be required
 - Equipment: No additional equipment will be required
 - Computers: No additional computer equipment or software will be required
 - Textbooks: Introduction to Environmental Engineering, P. Aarne Vesilind, PWS Publishing Company.

Fundamentals of Environmental Engineering, James R. Mihelcic, Martin T. Auer, David W. Hand, and Richard Honrath, John Wiley & Sons.

2. Rationale:

The proposed course is a new course that provides a solid introduction to the topic of environmental engineering for all civil engineering students. The proposed course is consistent with the establishment of the College of Engineering approved by the Board of trustees in 1994. The purpose of the course is to give all civil engineering students a working knowledge of the basic principles of environmental engineering including material balances, reactions, reactors, unit operations in water and wastewater treatment, air pollution, solid and hazardous waste management, and professionalism in environmental engineering practice.

3. Essence of the Course:

a) Objectives:

Upon completion of the course, civil engineering students will be able to understand and apply the following basic concepts in environmental engineering:

- Material balance
- Reactions
- Reactors
- Unit operations in water and wastewater treatment
- Air pollution control
- Solid and hazardous waste management

b) Topical Outline:

The instructor will supply the students with a syllabus during the first week of classes. The instructor will assess the advances in engineering technology and make the topic changes deemed necessary to maintain the standards of the course. The topics to be covered are listed below:

- Introduction to the basic principles of material balance
- Introduction to the basic principles of reactions
- Introduction to the basic principles of reactors
- Introduction to unit operations in water and wastewater treatment
- Introduction to air pollution control
- Introduction to solid and hazardous waste management

c) Evaluation and Grading Procedure of Students:

Student grades will be based on team problems, team projects, team reports, individual examinations, and individual homework.

d) Course Evaluation:

The proposed course will be evaluated based on student evaluations and curriculum review by engineering faculty.

4. Results of Consultations:

The proposed course is the cornerstone of the revised curricula for the Civil Engineering Program which have been approved by the Senate Curriculum Committee after an open hearing that was conducted by the College of Engineering Curriculum Committee on February 9, 1999. Additional consultations have been sought from faculty members in the Biological Sciences Department and from faculty members in the Department of Chemistry and Physics.

Catalog Description:

Introduction to Environmental Engineering (0908.210)

Prerequisite: Calculus II (1701.131), Physics I (1902.200), and Chemistry II (1906.101)
or Advanced College Chemistry II (1906.106)

This course introduces students to environmental engineering and professionalism in environmental engineering practice. Environmental engineering will be introduced using the concepts of material balances, reactions, reactors, unit operations in water and wastewater treatment, air pollution control, and solid and hazardous waste management. Discussions on professionalism in environmental engineering practice will be integrated throughout the course.



TO: Dr. Gregory Hecht
FROM: A. Prieto, Chairperson, Biological Sciences
RE: New Engineering Course Proposal
DATE: April 20, 1999

A handwritten signature in black ink, appearing to read "A. Prieto", written over the "FROM:" line of the header.

After consultation with Dr. Patricia Mosto, we must express our concern over the course content in the Environmental Engineering course. If the topics listed are to be treated properly, there seems to be an overlap with the topics presented in our Environmental Science class.

SENATE CURRICULUM COMMITTEE OPEN HEARING SUMMARY

PROPOSAL SCC#

DATE:

TITLE

SPONSORS ATTENDING:

SUMMARY OF HEARING -

G. Hecht passed on a memo from biology with their concerns with an overlap with environmental science. This concern was addressed. Comments were made that many proposed had topics that's missing. These were all amended.

- PASS WITH NO CHANGES**
- PASSED - RETURN TO SPONSOR FOR MINOR CHANGES**
- *TABLED W/SUGGESTED MINOR CHANGES**
- *NOT APPROVED**
