PROPOSAL NUMBER: 99- 455

CURRICULUM PROPOSAL FORM

**DEADLINES:*
REGULAR COURSE PROPOSALS: OCTOBER 23, 1998 FOR FALL, 1999 AND FEBRUARY 19, 1999 FOR SPRING, 2000
SHORT-TERM COURSE PROPOSALS: DECEMBER 11, 1998 FOR FALL, 1999 AND MARCH 26, 1998 FOR SPRING 2000

PROPOSAL TITLE: Senior Engineering Clinic II (0901.402)

SPONSOR/S: College of Engineering

DEPARTMENT: ENGINEERING 0901.402

CHECK ALL THAT APPLY:
__X__UNDERGRADUATE _____GRADUATE

COLLEGE: ___ENGINEERING_____
If LAS: _____History/Humanities
_____ Math/Sciences
_____Social/Behavioral Sciences

* * * * * * * * * *

TYPE OF PROPOSAL *(Check ALL that Apply)*

_____General Education
___*New Course in _____Bank*
___*Existing course, Add To _____Bank*
___*Multicultural/Global Designation*
_X_*Writing Intensive Designation*

_____ New Minor/Concentration/Specialization
_____ New Major/Degree Program
_____ Short Term Course Proposal

___X____ New Course (NOT Gen. Ed.)
_____ Name Change (Dept., School, Major)
_____Changes in Degree Requirements
____*Changes Involve Gen. Ed. requirements*

_____Minor Changes to Existing Courses
_____ *Course is NOT General Education*
_____ *Course IS General Education*

DEPARTMENT
(SIGNATURE INDICATES APPROVAL)

Robert P. Hesketh _____ 2/17/99
DEPT. CURRICULUM CHAIR / DATE DEPT. CHAIRPERSON / DATE

COLLEGE CURRICULUM COMMITTEE
DATE OF OPEN HEARING (if necessary)_____

X APPROVED

----- NOT APPROVED
Comments:

Robert P. Hesketh 4/30/99
SIGNATURE DATE

ACADEMIC DEAN (& GRADUATE DEAN, for New Graduate Programs Only)

--X APPROVED

----- NOT APPROVED
Comments:

_____ 6/2/99
SIGNATURE (Academic Dean) DATE

_____ _____
SIGNATURE (Graduate Dean) DATE

UNIVERSITY CURRICULUM COMMITTEE

DATE OF OPEN HEARING (if necessary) 5/7/99

----- APPROVED

----- NOT APPROVED

Comments:

Laurette Cuesta 5/12/99

SIGNATURE DATE

SENATE

Date announced at Senate 5/11/99

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 _____ 6/16/99

REGISTRAR

DATE APPROVED COURSE DESCRIPTION RECEIVED _____

HEGIS TAXONOMY & COURSE NUMBER ASSIGNED 0901.402

DATE/SIGNATURE OF REGISTRAR Robert C Tolot 7/7/99

NOTIFICATION FORWARD:

_____SENATE CURRICULUM COMMITTEE CHAIRPERSON

_____DEPARTMENT CHAIRPERSONS

_____ACADEMIC DEAN(S)

_____REGISTRAR

_____SPONSOR(S)

Course Proposal

1. Details:

a) Course Title:	Senior Engineering Clinic II (0901 402) - (WI)
b) Sponsor:	College of Engineering: Chemical, Civil, Electrical, and Mechanical Engineering
c) Credit Hours:	2 credit hours
d) Course Level:	Senior
e) Prerequisites: add 1361 112	Senior Engineering Clinic I (0901 401), Soph. Clinic 11 (0901.201) or permission of instructor
f) Time amd Scale of Implementation	Offered every Spring; Project Teams
g) Curricular Effect:	Required course for all engineering majors
h) Resources	Existing faculty, and new faculty to be hired as planned, will teach this course
i) Library Resources	Library acquisitions may be required on a project-by-project basis
h) Short Term Evaluation	N/A

2. Rationale:

This course provides a culminating, and writing-intensive, experience to the Engineering Clinic sequence. The goal of the Clinic sequence of courses is to give teams of undergraduate engineering students a meaningful, leading-edge, team-based project experience. This sequence of courses provides students in the four engineering programs (Chemical, Civil, Electrical, and Mechanical) with the necessary tools to succeed as an engineer of the future.

Each program will formulate guidelines for the projects sponsored by that program and for the participation of their students in projects sponsored by other programs. In this way, this sequence of courses will satisfy the requirements as specified by the Accreditation Board for Engineering and Technology (ABET) for the sponsoring program. The sequence of courses will also maintain sufficient flexibility for both inter- disciplinary and multi-disciplinary projects.

3. Essence of the Course:

a) Objectives:

Upon completion of this sequence of courses, undergraduate engineering students working in research and design teams and guided by a faculty advisor will be able to do the following:

Conduct a thorough literature search and review.
Prepare a clear and concise problem statement.
Consult with other faculty and professional experts.
Develop and implement a detailed research and design plan.
Prepare periodic oral and/or written progress reports.
Derive publishable research and design results.

This course will require students to focus intensively on writing, both in informal and formal settings. There will be writing exercises given throughout the semester that will culminate in a final written report.

b) Topical Outline:

The topics chosen by each undergraduate team will depend upon the mutual interests of the undergraduate students and their faculty advisor, and upon the requirements of the engineering department that is sponsoring the project. The sequence of courses will include the following basic components:

A thorough literature search and review.
A clear and concise problem statement.
A record of consultations with other faculty and professional experts.
A research and design plan developed and implemented in close collaboration with a faculty mentor.
A record of project development and execution including weekly progress reports.
A final set of presentable results.
A final written report and oral presentation.

c) Evaluation and Grading Procedure of Students:

Evaluation of team progress will be made on a regular basis by the faculty and by the chair of the sponsoring department. The appropriateness of the content for each project will be determined each semester by the appropriate collection of engineering clinic faculty.

Special attention is given to evaluating the writing experience, as this is a Writing-Intensive (WI) experience. The written progress reports will be carefully examined, and evaluated. Feedback will be given on a continuing basis throughout the course, which will enhance the student's writing experience.

d) Course Evaluation:

The proposed courses will be evaluated based on student evaluations and curriculum review conducted by each department.

4. Results of Consultations:

Senior Engineering Clinic II is required for all undergraduate students in the College of Engineering. This sequence is consistent with the engineering curricula that were approved by the University Senate in December 1994 and the revised curricula that were approved in June 1996. Consultations were submitted with the original proposals and the revised proposals as specified by the Senate Curriculum Committee.

Regarding the writing-intensive nature of the course, the writing faculty of the College of Communication have indicated that they are agreeable to the WI designation for this course. As the College of Communication is directly involved with the conduct of Sophomore Clinic I, their faculty are aware of the writing-intensive nature of the Clinic sequence. Their participation have added an extra dimension to the Clinics that otherwise would not have been present. Consultation and advice from the College of Communication will be continually sought in the evolution of this course.

Senior Clinic II (0901.402)
Justification for Writing Intensive (WI) Designation

Conduct of the Course

Special attention will be given to evaluating the writing experience in this course. The written progress reports will be carefully examines, and evaluated. Feedback will be given on a continuing basis throughout the course, which will enhance the student's writing experience.

Written Reports

Seven (7) standard industrial style reports are required. These will consist of a memo with supporting documentation of graphs, tables and calculations.

Two (2) academic style term report are required. These reports are written in a format suitable for journal publication and/or research dissertation.

These reports will follow the standard engineering format.

Feedback

Students will submit both a midterm and final report in the form of a technical journal article. The reports will be carefully reviewed for both writing and content, and graded by the professor. Additionally, a second copy of the midterm report will be given to another student for peer review. The second student will be asked to comment on content, syntax, grammar, and flow of the paper and make specific recommendations for improvement. The review will not affect the original author's grade, but the review itself will be graded. The original author will then receive both the faculty and the peer reviews and be required to submit a revised document within 2 weeks.

Catalog Description:

Senior Engineering Clinic II (0901.402) - (WI) and Soph. Clinic 11 (0901.201) or permission of instructor

Prerequisite: Senior Engineering Clinic I (0901 401),

This course provides a culminating experience to the Engineering Clinic sequence. The goal of this sequence of courses is to give teams of undergraduate engineering students a meaningful, leading-edge, team-based, multidisciplinary engineering project experience. The sequence will include a thorough literature search and review, the development of a clear and concise problem statement, consultations with other faculty and professional experts, and delivery of a final written report and oral presentation.

ROWAN UNIVERSITY

Department of College Writing

March 9, 1999

Dr. Steven H. Chin, Associate Dean
College of Engineering
Rowan University
201 Mullica Hill Road
Glassboro, NJ 08098

Subject: Writing Intensive Designation for Senior Clinic II

Dear Dr. Chin:

We are pleased to endorse the proposed designation of Senior Clinic II as a Writing Intensive course. The stated objectives of Senior Clinic II clearly indicate that in this course, students will learn that the research and design process is realized through the written documents that record and communicate background information, initial ideas, experimental activity, and final outcomes. The course proposal, indeed, delineates a long-term, comprehensive writing project with multiple stages and multiple audiences. Goals like these require students to write with sophistication and skill. In addition, the use of both informal and formal writing will help students become accustomed to using writing as a central component of all stages of their engineering work. Students will also gain from receiving ongoing feedback as they develop their final written report, increasing their understanding of the complexities of revision and collaboration.

Based on our experience in planning the curriculum for College Composition II as part of Sophomore Clinic I and our teaching of this course, we are confident that Senior Clinic II will provide a challenging and productive experience for students. In the three years we have been working with the engineering faculty, they have shown their commitment to better writing. The curriculum already in place demonstrates that the College of Engineering values rhetorical education as well as engineering education. The many Engineering faculty who we have worked with and consulted are committed to making sure that students understand that writing is not an ancillary and even inconvenient task that merely follows "real" engineering work.

As Communication faculty who regularly collaborate with Engineering faculty in the teaching of Sophomore Clinic I, we are also pleased to offer our assistance in the development of assignments, classroom activities, feedback methods, and assessment measures.

We wish you continued success with the Rowan Engineering Program, and we look forward to continuing our partnership with you.

Sincerely yours,

Roberta Harvey

Ms. Roberta Harvey
College Writing Department

Frances S. Johnson

Dr. Frances Johnson
College Writing Department

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