

ROWAN COLLEGE
CURRICULUM COMMITTEE

(R)

PROPOSAL TITLE: ADVANCED COMPUTER ENVIRONMENTS

 UNDERGRADUATE GRADUATE 3 CREDIT HOURS

SPONSOR(S): Leigh Weiss, Computer Science Department

DEPARTMENT & TELEPHONE# 4805, 3892-

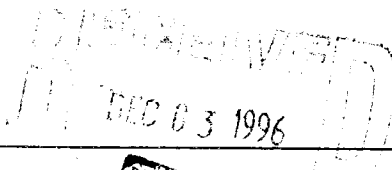
CHECK ONE: COURSE MINOR PROGRAM CONCENTRATION SPECIALIZATION
 ACHIEVEMENT CERTIFICATE CERTIFICATION PROGRAM MAJOR PROGRAM

STEP #1 (DEPARTMENT)	STEP #2 (RECEIPT)	STEP #3 (SCHOOL)
<input checked="" type="checkbox"/> APPROVED/DATE: <u>10-22-96</u> <input type="checkbox"/> NOT APPROVED/DATE: _____ <i>[Signature]</i> DEPT. CURRICULUM CHR. <input checked="" type="checkbox"/> REVIEWED/DATE: <u>10/22/96</u> <i>[Signature]</i> DEPT. CHR.	SCC# <u>97-46</u> DATE RECEIVED: <u>10/22/96</u> \$ 100 <i>[Signature]</i> SENATE CURRICULUM CHR.	REVIEWED DATE: <u>11-7-96</u> <input checked="" type="checkbox"/> RECOMMEND TO APPROVE <input type="checkbox"/> RECOMMEND NOT TO APPROVE FORWARD FOR OPEN HEARING <input type="checkbox"/> WITHOUT RESERVATIONS <input type="checkbox"/> WITH RESERVATIONS COMMENTS: <u>How come undergrads can't take?</u> <i>[Signature]</i> SCHOOL COMMITTEE CHR.

STEP #4 (ACADEMIC DEAN) COMMENTS:

RECOMMEND NOT RECOMMEND
 CONDITIONALLY RECOMMEND (SEE COMMENTS)

DATE & SIGNATURE, DEAN OF SCHOOL: 12/4/96 [Signature]

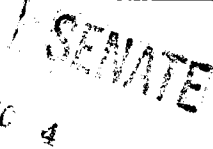
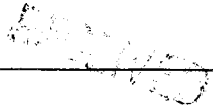

 DEC 03 1996

STEP #5 (SENATE CURRICULUM COMMITTEE)

DATE OF OPEN HEARING: 4-13-97 3597

APPROVED BY SENATE CURRICULUM COMMITTEE (DATE) _____

RETURNED TO SPONSOR(S) FOR THE FOLLOWING REASONS: _____


 DEC 4


STEP #6 (SENATE)

DATE PRESENTED TO SENATE: 2 APPROVED NOT APPROVED

NOTIFICATION TO EXECUTIVE VICE PRESIDENT/PROVOST (DATE) _____

SENATE CURRICULUM COMMITTEE CHAIR SIGNATURE/DATE: [Signature] 4/15/97

Course Proposal

Advanced Computing Environments 0701.561

suggested HEGIS number

1. Details:

- a. Course Title: Advanced Computing Environments
- b. Sponsor (s): Department of Computer Science, Leigh Weiss and the faculty of the Computer Science Department
- c. Credit Hours: 3
- d. Course Level: Graduate
- e. Curricular Effect: Elective
- f. Prerequisite: Management Information Systems (0702.334), Computer Literacy (0701.100) or equivalent, or permission of instructor.
- g. Suggested time and scale of implementation:
Spring, 1998; every year thereafter, or more frequently as demand dictates.
- h. Adequacy of the present staff, resources, library facilities and holdings, space needs, and any other additional requirements for implementation:

The Computer Science teaching laboratory (Robinson 325) and the School of Business computing laboratories in Bunce (lower and first floors) have 25 and 90 networked Pentium 90 computers respectively. The library has recently expanded its electronic holdings of business-related databases and periodicals.

Faculty inter-departmental collaboration with opportunities for team teaching this course will foster, support and nurture continued curriculum development.

2. Rationale:

The business and industrial community is, and will continue to be, strongly linked to computer based technology. Computer technology has experienced explosive growth in all aspects of management, production and service delivery. Computer hardware and software developments have an ever shrinking generational life. Next generation

products with increased functionality and lower cost are in the market place in less than a year after initial introduction. Students and professionals who were educated only a few years ago find it difficult to keep up to date with these changes. Mastering the new tools of technology and managing computer based work environments require more than technical skill. The ability to gather and integrate state-of-the-art technological information, engage in intra- and inter-institutional collaboration, and apply critical problem-solving strategies facilitates individual lifelong learning and ensures organizational vitality.

3. Essence of the course:

a. Objectives

Students will be able to:

- (1) Use computer applications, including word processing, presentation graphics, spreadsheets, the Internet/intranet, to effectively organize and manage their professional duties, and work effectively in electronic collaborative work groups.
- (2) Use desktop publishing to prepare business plans, test results, sales projections, advertising copy, etc.
- (3) Build and maintain a professional file utilizing HTML Web page editors.
- (4) Integrate graphics (scanned line art, half tones, and continuous tone images) as well as commercial clipart, downloaded images, and other digitized resources, into traditional documents, Web pages and multi-media publications.
- (5) Use the resources of the Internet and commercial data bases to research and evaluate the impact of technology on business. Compile and analyze the data with spreadsheet tools.
- (6) Form and participate in electronic collaborative work groups through the Internet, E-mail and the WWW.
- (7) Research and present models in Internet applications (in areas such as: customer support, sales and market research) that are supported with spreadsheet analyses.

(8) Provide and present "Intelligence Reports" or assessments on emerging trends in hardware and software products that will have an impact on the electronic workplace and general business community.

(9) Develop a long and short range "Personal Technology Plan" to identify opportunities and training requirements.

(10) Review the substantive issues regarding data security and ethics of data transfer utilizing electronic networks and referencing electronic media.

b. Topical Outline/Content

(1) Review operating systems and environments such as: Windows 3.1/95, Windows for Workgroups, Windows NT, OS2, UNIX, and JAVA applets.

(2) Internet resources

- (a) E-mail with file attachments
- (b) WWW as a research tool and a collaborative work environment
- (c) Library searches and research including archival documents, and commercial data bases.

(3) Review advanced word processing topics including:

- (a) Job layout and planning including page and document formatting and typographical controls.
- (b) Templates(Wizards), boiler plates, style sheets, and macros.
- (c) Digitized data and graphics transfer between applications and between computing platforms.

(4) Research, design and construct multi-media presentations.

- (a) Story board development.
- (b) Produce "Stand alone" presentations.

(5) Defining the "Electronic Office/Workplace"

- (a) Integration of the electronic desktop including telephone, fax, scanners, printers, voice/e-mail, and time management/scheduling.
- (b) Survey software, ie. groupware applications, OCR and voice dictation systems.

(6) Research project: *

* Utilizing tools such as spread sheets, word processors, graphics editors and world wide web browsers.

- (a) Define the specifications for the hardware and

- software requirements, technical support, training, and associated costs to set up an "Electronic" office.
- (b) Evaluate and present an analysis of emerging computer software and hardware infrastructure and technologies.
- (c) Develop a long and short range "Personal Technology Plan".
- (d) Create and present "Intelligence Reports" or assessments on emerging trends in hardware and software.

(7) Create and publish World Wide Web (WWW) pages using HTML editors:

- (a) Produce a personal resume WWW page.
- (b) Build a professional file WWW page. Include links to research and resources on such topics as: economics, hardware and software, ethical issues, case studies, and emerging technologies.

c. Evaluation and Grading Procedures for Students:

Student evaluations will be based on some or all of the following methods:

- (1) Demonstration of mastery of the course content and objectives through practical performance-based examinations.
- (2) Presentations of research projects developed utilizing the skills gained in the course.
- (3) Traditional examinations relevant to the course content.

d. Course Evaluation:

The course will be evaluated by members of the faculty from the Department of Computer Science. These periodic evaluations of the course will form the basis for specific recommendations for revisions and improvements.

The Department of Computer Science will make application to the curriculum committee for modifications and minor adjustments as needed.

4. Results of consultations:

The following person has read the proposal and is in agreement with the content and objectives. A letter of support is included.

- 1. Dr. Diane Hamilton. Letter attached.
- 2. Additional personal meetings and phone conversations with Dr Robert Lynch and Dr. Gulser Meric provided information for revisions to the proposal.

5. Additional Information and comments, etc.:

Catalog Description: Advanced Computer Environments 0701.561

This is an advanced applications course in which student will learn the effective use of various computer applications for organizing and managing their professional duties, including functioning in computer-supported collaborative work groups. Some specific skills that will be covered include the use of desktop publishing to prepare business plans, advertising copy, etc., the creation and maintenance of World Wide Web pages, the use of presentation packages, the integration of graphics into traditional or multimedia documents, and the use of Internet and commercial data bases (including analysis of data using spreadsheet tools). Students will report on emerging trends in hardware and software and will review issues relating to data security and ethics.