

Faculty Senate Curriculum Committee

(2)

APPROVAL FORM

Rev: 5/82

Proposal Title: SEMINAR IN COMPUTER EDUCATION

Sponsor(s): Dr. Mario Tomei (Initiator) Dept.: EDUCATIONAL ADMINISTRATION DEPT.

Professional Studies Instructional Computing Task Force and Curriculum & Instruction/Secondary

Check one: Course Specialization Concentration Achievement Certificate

Minor Change Major Program

(please name: deletion or credit/title/catalog change)

Certification Program Undergraduate Graduate Credit Hours

Step 1 (Department)

Step 2 (Receipt)

Step 3 (Division CC)

Approved 4/10/83
date
 Not Approved
[Signature]
Dept. CC Chairperson
 Reviewed 1/4/83
date
 Mario Tomei 3-13-83
Chairperson, TFCC Date
[Signature]
Chairperson, Dept.

SCC# 82-83-45
Proposal Received 4/6/83
date
[Signature]
Chairperson, SCC

Reviewed 4/19/83
date
 Approved
 Not Approved
Comments:
[Signature]
Chairperson, Div. Curr. Comm.

Step 4 (Academic Dean)

Comments:

Reviewed 4/20/83
date

[Signature]
Signature, Dean of Division

Step 5 (SCC)

Open Hearing Date: 5/13/83 Approved by Senate Curriculum Committee 5/13/83 (date)

Returned to sponsor(s) for the following reasons:

Step 6 (Faculty Senate)

Presented to Faculty Senate (date): 5/13/83

Approved
 Not Approved

Notification to Vice-President Academic Affairs (date): 5/17/83

[Signature]
Signature: SCC Chairperson

Step 7 (Vice-President for Academic Affairs)

Course received 5/3/87 (date)

Course approved Yes .X No

If no, reasons are as follows:

Student credit hours 3

Faculty load hours 3

Equalized credit hours 3

Official copy and approval sheet filed 6/30/87 (date)

Signature _____
(Vice-President for Academic Affairs)

Registrar

Approved course description received _____ (date)

Hegis Taxonomy and Course Number assigned

Signature _____ (Registrar) _____ (Date)

Notification forwarded: Senate Curriculum Committee Chairperson, Department Chairperson(s),
Academic Dean(s), Registrar, Sponsor(s)

COURSE PROPOSAL

1. DETAILS

- a. Course Title: SEMINAR IN COMPUTER EDUCATION
- b. Initiator: Dr. Mario Tomei
Sponsors: Professional Studies Instructional
Computing Task Force and Curriculum
and Instruction/Secondary
Administration: Curriculum and Instruction/
Secondary
- c. Level: Graduate - 3 S.H.
- d. Curricular Effect: Required for Post-Baccalaureate Achievement Certificate in Computers in Education.
- e. Prerequisites: Completion of all other course requirements for the Post Baccalaureate Certificate in Computers in Education or permission of the program advisor.
- f. Time frame: Spring 1985, one section and every semester thereafter.
- g. Adequacy of resources: Sufficient staff exist. Library resources are not adequate at the present time. Additions to the book and periodical and software collections are presently being developed through the regular library and departmental book budgets. It is anticipated that the library and software resources will be adequate before the Spring of 1985 when the course is scheduled to be implemented.

Microcomputer hardware requirements will need to be expanded and updated to accommodate 450-man hours of computer time during the late afternoon and evening hours. It is anticipated that such hardware will be in place prior to the implementation of this course.

2. RATIONALE

This course is designed to summarize, integrate, apply and evaluate the major concepts studied in the instructional computing post baccalaureate achievement certificate program. The seminar will address the specific needs of teachers and administrators in evaluating and designing educational applications in instruction and administration. Cogent issues will be

discussed and research will be reviewed in order to clarify the "state-of-the-art" in educational computing.

3. ESSENCE

a. Objectives of the course in relation to student outcomes

Students in the educational computing program are prepared to assume some responsibility for classroom, curriculum and administrative educational computing leadership in elementary or secondary schools or institutions of higher education. During the Seminar, opportunity is to be provided for advanced graduate students to plan, design, implement and evaluate a particular educational computing research problem which develops individualized competencies applicable to on-the-job situations. Competencies to be developed by the student are to be from one or more of the following areas: (1) Curriculum evaluation and development, (2) Computer assisted instruction, (3) Classroom management, (4) Administrative applications.

Upon completion of the course, students will be able to:

- (1) More effectively function on the job in one or more of the four areas, tying educational theory and research to effective educational computing practice.
- (2) Effectively record, analyze, and interpret data collected from an educational computing research project.
- (3) Effectively summarize, draw valid conclusions from, and make constructive recommendations regarding educational computing problems.
- (4) Function more effectively in a leadership role in helping people to use computers to identify, analyze, and solve educational problems.

The topical outline that follows illustrates the content to be reviewed prior to the selection of a research study.

b. Topical Outline

1. Review of research issues and state of the art
 - a. Curriculum evaluation and development, by subject areas.
 - (1) Elementary
 - (2) High School
 - (3) College
 - (4) Special Needs
 - b. Computer-assisted and computer-managed instruction, by subject areas
 - (1) Elementary
 - (2) High School
 - (3) College
 - (4) Special Needs
 - c. Programming Languages
 - (1) Instruction - For Computer Education
 - (2) Computer Curriculum - For Teaching Computer Science
 - d. Administrative Applications
 - (1) Evaluation and development of data-based management systems
 - (2) Evaluation and development of computer modeling and simulation systems
 - e. Educational and societal impact
 - (1) Change processes
 - (2) Employment patterns
 - (3) Privacy, harassment
 - (4) Personal Computers
 - (5) Future possibilities
2. Problem Solving Project
 - (1) Need for the Study - A justification of why research is needed on this topic.
 - (2) Statement of the problem. Question on hypothesis to prove or disprove.
 - (3) Delimitation of the problem - What to include or exclude.
 - (4) Purposes - What is to be achieved

as implied in Statement 2.

- (5) Methods or procedures - Sequence or order should be indicated to show the whole procedure.
- (6) Sources - Recent primary sources are needed.
- (7) Terminology - Stipulate definitions.

3. Examples of problem-solving projects

- (1) An evaluation of the effectiveness of an instructional or administrative software program.
- (2) The development and testing of an instructional or administrative software program.
- (3) The development and evaluation of a computer/computer-assisted curriculum K-6/7-12.
- (4) Designing and evaluating an effective in-service program to teachers/administrators in an area of educational computing.

c. Evaluation and grading procedures of students:

Students shall be graded based on the following:

- a. Class participation
- b. Comprehensive examination
- c. Project proposal
- d. Final project report

4. CONSULTATION: Professional Studies Instructional Computing Task Force

5. ADDITIONAL INFORMATION

The research report will be similar to the report required of M.A. candidates, except that only two copies shall be required: one for the department and one for the student. Campbell's Form & Style in Thesis Writing, sixth edition, shall be used in preparing the final report.

6. CATALOG DESCRIPTION

SEMINAR IN EDUCATIONAL COMPUTING

3 S.H.

Prerequisites: Completion of all other course requirements for the Post Baccalaureate Certificate in computers in Education or permission of the program advisor

Students shall review the issues, research, and the state of the art in educational computing. They will develop and carry out an in-depth research project and prepare a written report on it. Projects are to be selected from the areas of curriculum evaluation and development, computer assisted instruction or administrative applications.