



APPROVAL FORM

- 1) An approval Form must accompany each proposal.
- 2) A proposed catalogue description of the course must accompany the proposal as a separate page.
- 3) Results of all consultations must be attached to the proposal.

Proposal Title Computer Mapping

Sponsor(s) Chester Timolzak & Richard Scott Dept. Geography/Anthropology

Check One { Course Credit/Level/Title Change _____ Other _____
 Concentration _____ Specialization _____ Major Program _____ Certification _____

Graduate _____ Undergraduate No. of Credits 3

REVIEWS		
Department Curr. Comm.	Division Curr. Comm	Dean of Division
Reviewed <u>11-1-78</u> Date	Reviewed _____ Date	Reviewed <u>11/22/78</u> Date
Approved _____ Not Approved <u>11-1-78</u> Date	Approved _____ Not Approved <u>11-22-78</u> Date	Approved _____ Not Approved _____ Date
<u>[Signature]</u> Chairperson Dept. Curr. Comm.	<u>[Signature]</u> Chairperson Div. Curr Comm.	<u>[Signature]</u> Signature

SENATE CURRICULUM COMMITTEE

SCC # 71-78-14 Proposal Received 11/27/78 Open Hearing Held 12/1/78

Returned to the department for the following reason(s):

Approved by the Curriculum Committee: Date 12/1/78

Presented to Executive Committee of the Faculty Senate as information: Date 12/1/78

Notifications forwarded: Vice President for Academic Affairs: Date _____

[Signature]
Signature: Chairperson, Curriculum Committee

Academic Dean

I have reviewed the final documents as approved and concur with same. Budget, faculty, library allocations and Academic Support Services are adequate for immediate implementation.

I have reviewed the final documents as approved and concur with same. Budget, faculty, library allocations and Academic Support Services for the current academic year are inadequate for immediate implementation or implementation in the next fiscal year. The earliest that the proposal might be implemented would be

HEGIS TAXONOMY NUMBER: _____

Alan Doman
Signature: Academic Dean

Date 1/8/79

Copies forwarded: Chairperson, Curriculum Committee, Department Chairperson,
Registrar

REGISTRAR

Approved course description received

Signature: Registrar

DATE _____

Vice President for Academic Affairs

Official copy and approval sheet filed

Laura J. Brown
Signature: Vice President for Academic Affairs

DATE 1-9-79

COURSE PROPOSAL
DEPARTMENT OF GEOGRAPHY/ANTHROPOLOGY

I. TITLE: Computer Mapping

DEPARTMENT: Geography/Anthropology

SPONSORS: Professors Chester Zimolzak and Richard Scott

II. ESSENCE:

- A. Undergraduate Course
- B. 3 Semester hours credit
- C. Junior-Senior (300-level)
- D. No Prerequisites; permission of the instructor
- E. This course would be a recommended course for geography majors as well as a college wide elective. Because of its specialized nature, it is not recommended as a general education ~~elective~~.
- F. This course would be offered in Intersession 1979, and approximately once a year, thereafter.

III. DETAILS:

- A. Adequacy of staff and resources: Three professors in the Geography/Anthropology Department are qualified to teach this specialized course. Use is made of the computer center in Bole Building and the Key Punch room. Otherwise, no special space needs are required. Specialized texts are available on reserve in the Geography/Anthropology Department for student use. The Library Resource Center (especially Government Documents Section) provides most of the statistical data used.
- B. Currently there is no course offered at the college dealing with computer mapping. It will supplement, but not overlap, the regular course in Cartography offered by this department.
- C. Specific Objectives of the course:
 - 1. The students will demonstrate their ability to design maps.
 - 2. The students will gain a knowledge of and expertise in the use of computers in map making, - to be obtained by the completion of six training exercises.
 - 3. The students will gain familiarity with the Symap and Symvu cartographic program, demonstrating this through use in exercises and final projects.
 - 4. The students must design and execute an independent map project; thereby they will demonstrate mastery of the programs and techniques taught.

5. The students will demonstrate familiarity with the concepts of survey research by designing and executing a visual quality survey/questionnaire, as well as a questionnaire designed to test perception.
6. Knowledge of perceptual analysis will be demonstrated by individual student execution of mental map based on survey data, as well as well as critical analysis thereof.

IV. TOPICS TO BE INCLUDED:

- A. Introduction to Maps: Maps as Tools
- B. Map Elements and Designs
- C. Uses and Limitations of Computers in Cartography
- D. Elements of Symap and Symvu programs
- E. Correction/Program Errors
- F. Data Analysis and Display
- G. Stepped and Smooth Statistical Surface
- H. Making of Cartograms
- I. Changing Computers Maps Into Finished Projects

V. RATIONALE:

This course fills an important curricular need, providing students with one of the most up-to-date techniques in spatial analysis. It does not duplicate courses in computer science; it uses highly successful programs developed by the Harvard University Computer Graphics Lab. Computer Mapping courses are now being offered by most colleges and universities offering geography majors; a significant demand for this course has been expressed by our current majors. Nine area planning staff employers have expressed the need for such a technique- and the need for a facility/program for training their personnel has been expressed by several County Planning Board Directors. Last year's enrollment was composed mainly of non-majors pointing to the universal applicability of the technique. The State of New Jersey is currently developing a job category known as cartographer; this course will be a requirement for such jobs.

VI. RESULTS OF CONSULTATION:

Recommendations by the Association of American Geographers with regard to the development of major programs and cartography courses were incorporated in the preparation of the course.

Consultation with members of the Mathematics/Computer Science Department have indicated that they do not foresee a problem of overlap with their department. Individual responses to the proposal will be available for the open hearing.

Course Description

2206-320

COMPUTER MAPPING

3 S.H.

This course introduces students to one of the most recent techniques of spatial analysis, using computer programs to produce maps. Students will gain practical experience in processing and analyzing data, and in presenting it quickly and visually.