SIMON FRASER UNIVERSITY S. 400

MEMORANDUM

To Mr. H. Evans Secretary of Senate	From D. H. Sullivan Dean of Arts
Subject Geography Course 452-5	Date August 6, 1970

Attached is a proposal for a new course in the Department of Geography entitled, "Theoretical and Computer Cartography", Course #452-5, as approved by the Faculty of Arts.

Would you please bring this proposal before Senate for approval at its next meeting. Thank you.

D. H. Sullivan

DHS:DT
attach.

FACULTY OF ARTS

November, 1969

NEW COURSE PROPOSAL

1. CALENDAR INFORMATION

Department: Geography Course Number: 452-5 Title: Theoretical and Computer Cartography

Sub-title or Description:

A study of theoretical problems of cartography and their implementation in the computerised manipulation and representation of surfaces and maps.

Credit Hours: 5 Vector Description: 2 - 1 - 2

Pre-requisite(s): For geographers: Geography 151 and upper level standing.

For non-geographers - programming knowledge and Upper Level standing

2. ENROLMENT AND SCHEDULING

Estimated Enrolment: 10-15

Semester Offered (e.g. yearly, every Spring; twice yearly, Fall and Spring): Yearly

When will course first be offered? Spring 1971

3. JUSTIFICATION

A. What is the detailed description of the course including differentiation from lower level courses, from similar courses in the same department, and from courses in other departments in the University?

There is no similar course in the Department or in other departments. The course is an introduction into the usage of different mapping programs using the printer and plotter, discussion of their range of application and their limitation. Consideration of their theoretical implications: the theory of continuous surfaces, interpolation and extrapolation, data gathering and file handling, etc.

B. What is the range of topics that may be dealt with in the course?

Using existing programs for computer mapping, gathering data for mapping purposes, building small data banks, using different symbols to test and obtain varied visual impressions, application of the programs for geographical, biological, physical, etc. problems, study of different types of symbols and shadings for automated drafting, study and test of different interpolation approaches, writing subroutines to be included in the programs. Work in Computer Graphics.

C. How does this course fit the goals of the department?

The course supports the Department's program in teaching methods for geographers. It is a complement to the cartographic and quantitative courses.

D. How does this course affect degree requirements?

The effect is that the student gets a broader choice in the methodological area of geography.

E. What are the calendar changes necessary to reflect the addition of this course?

Add: Geography 452-5, Theoretical and Computer Cartography.

Description: A study of theoretical problems of cartography and their implementation in the computerized manipulation and representation of maps and surfaces.

F. What course, if any, is being dropped from the calendar if this course is approved?

N.A.

G. What is the nature of student demand for this course?

Estimated 10-15 students, one-third or more from other departments like Biology, Mathematics and Psychology.

H. Other reasons for introducing the course.

The increasing need for graduates competent in Computer Cartography for planning and in computer graphics for very different fields suggests such a course.

4. BUDGETARY AND SPACE FACTORS

A. Which faculty will be available to teach this course?

Dr. T. K. Peucker

B. What are the special space and/or equipment requirements for this course?

Nil

C. Any other budgetary implications of mounting this course:

Nil

Approval:

Curriculum Committee: July 14, 1970

Dean of Faculty:

Senate: