

NOV 21 1988

CURRICULUM PROPOSAL FORM
University-Wide Undergraduate Curriculum Committee

UWUCC USE ONLY

Number	<u>238</u>
Action	_____
Date	_____

I. TITLE/AUTHOR OF CHANGE

COURSE/PROGRAM TITLE Advanced Cartography II

DEPARTMENT Geography & Regional Planning

CONTACT PERSON Robert Sechrist

II. APPROVALS

[Signature]
Department Curriculum Committee

[Signature]
Department Chairperson

[Signature]
College Curriculum Committee

[Signature]
College Dean *

Director of Liberal Studies
(where applicable)

Provost
(where applicable)

* COLLEGE DEAN MUST CONSULT WITH PROVOST BEFORE APPROVING CURRICULUM CHANGES. APPROVAL BY COLLEGE DEAN INDICATES THAT THE PROPOSED CHANGE IS CONSISTENT WITH LONG RANGE PLANNING DOCUMENTS, THAT ALL REQUESTS FOR RESOURCES, MADE AS PART OF THE PROPOSAL, CAN BE MET, AND THAT THE PROPOSAL HAS THE SUPPORT OF THE UNIVERSITY ADMINISTRATION.

III. TIMETABLE

Date Submitted to UWUCC _____	Semester/Year to be Implemented _____	Date to be published in Catalog _____
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IV. DESCRIPTION OF CURRICULUM CHANGE

(Attach remaining parts of proposal to this form).

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The old catalog description for GE 313 read:

GE 313 Cartography

3c-01-3sh

Gives an understanding of the compilation and use of maps and develops an ability to construct various types of maps.

The new catalog description will read:

GE 313 Cartography II

3c-01-3sh

Prerequisite: GE 213

Gives an understanding of the compilation and use of maps and quantitative data. The course develops skills essential to the construction of various types of maps.

The statement is being modified to reflect the creation of a new, introductory level, cartography course GE213. The existence of a two course sequence in traditional cartographic methods brings our program into line with the offerings of most other geography departments and the suggestions of national organizations and major employers.

PRESENT:

Title change

Cartography II

GE 313 Cartography II

3c-01-3sh

Prerequisite: GE 213

Gives an understanding of the compilation and use of maps and quantitative data. The course develops skills essential to the construction of various types of maps.

Course Analysis Questionnaire

Section A.

A1. The proposed course is designed for majors. Geography students specializing in cartography require more extensive training than they are currently receiving. The creation of a second course will permit that expanded coverage. Specifically, rather than the current examination of a select few map types students will receive detailed training in how to make a larger variety of maps, continued training in map layout and design, integrating computer generated maps with cartographer embellishments to produce a finished product, and will receive training in map reproduction processes in our new darkroom. This course is not intended for liberal studies.

A2. The content of this course is being adjusted to represent the creation of the new, lower level, cartography course (GE213). Content areas moved from 313 to 213 include; level of data measurement, graph construction, choropleth maps, and stepped surface maps.

A3. This course follows the traditional offering format for cartography courses in the department and throughout the nation.

A4. Yes. This is an existing course, but is being modified to reflect the creation of GE213.

A5. Yes. The course has been approved.

A6. The course will be offered for three credits only.

A7. Most departments offer two cartography courses. Example Institutions offering two or more cartography courses include: Slippery Rock, Kutztown, Penn State, Ohio State, SUNY-Binghamton, Louisiana State.

A8. Most employers are requiring six hours of traditional cartographic training for entry level positions. The American Congress of Surveying and Mapping, the North American Cartographic Information Society, and the Association of American Geographers all recommend a minimum of six hours training for cartographers.

Section B

B1. This course will be taught by a single instructor.

B2. GE213 is simultaneously being proposed as a prerequisite.

B3. This course will, with 213, serve as the core for cartographic training in the department. No discussions with other departments have taken place.

B4. Yes, provided they have taken 213.

Section C.

C1. a. This course will be offered annually, adequate faculty exist to teach the course.

- b. The course will be taught in L8, the departmental cartography lab, and will use the departmental darkroom in L16b.
- c. Required equipment is in position and functioning.
- d. The department has adequate resources for photographic supplies, students must purchase some expendable materials.
- e. There exist adequate library materials.
- f. None will be needed.

C2. No.

C3. Annually, there are no seasonal requirements.

C4. Only one section will be offered each year.

C5. The course is limited to 18 students by the number of drafting tables possessed by the department.

C6. No.

C7. Yes. This course will not impact the number of free electives a student may take. The addition of GE213 (prerequisite of 313) will mean that students effectively lose three credits of departmental electives. Departmental electives now stand at 18 credits.

Geography 313/513: Advanced Cartography
Dr. Sechrist Office: Leonard 2 Phone: x2251

Course Description: This course expands upon principles of thematic cartography learned in GE213. Topics covered include: selection of appropriate format, presentation layout, data characteristics, map production techniques, advanced thematic mapping techniques, and how to use the tools and materials of the cartographer.

This is a lab course, about half of each class period will be devoted to individual instruction and assistance. Come prepared to draw during each class period. There will be class periods where no lecture will be given and you will be expected to draw throughout the period. There will be drawers with locks provided for you to store your equipment. Participation in class discussion and during independent work periods will be an important factor in grading.

Assignments: Every two weeks a new project will be assigned. Each project is designed to fulfill two goals. First, the student will be exposed to new techniques and display methods. Second, the projects are designed to sharpen the skills learned in preceding assignments. Student assignments will be collected and reviewed in class. Students will be expected to answer questions about the data mapped and the techniques used. Additionally, there will be a final project selected by the student and approved by the instructor in addition to the final exam.

Each assignment will be given a letter grade. The final project is worth double a regular assignment, and the final exam is equal to a regular project. See attached grading format sheet. Late submission of projects will result in a 1/3 letter grade reduction per day, weekends included.

Lab Hours: The Cart Lab will be open throughout the day for you to work.

Text: Borden Dent Principles of Thematic Map Design

Materials Required:

Pens (buy technical pens such as rapidograph, do not buy disposables)
Triangles 30-60-90 45-90-45
Technical pencils .5mm H lead, 2H lead, Blue lead
erasers pink, plastic
x-acto knife get additional blades #16
engineer's scale
mylar 18x24 sheets
graph paper
tracing paper
zip-a-tone

Recommended materials:

erasing shield
circle, square, etc. templates buy as you feel you need
steel straight edge 24" or 36"
compass (drafting set)

Provided: T-squares, large triangles, curves, expendable materials

Mapping Projects, Associated Readings, and Lecture Topics

1. Review and Warm Up
 - Lecture: Multiple Topics
 - Data, Graphs, and Choropleth Maps
 - Map Layout and Design
 - Using a Kroy Machine
 - Map Reproduction
 - planning for scale changes
 - Read: Design Interlude 2
2. Mapping Point Data
 - Lecture: How to dot, the PMT photographic process
 - Project 1: the dot map
 - Read: Chapter 8
3. Proportional Symbol Mapping
 - Lecture: How to proportion, using the darkroom
 - Project 2: Graduated Symbol Mapping (using Proportional Circles)
 - Students will turn in mylar and PMT print for this and all subsequent projects.
 - Read: Chapter 9
4. Isoleth Mapping: volumetric Display
 - Lecture: types and how to make isopleth maps
 - Map text placement, fonts, selection, and types of material
 - Project 3: Isoleth map
 - Read: Chapter 10; Design Interlude 3
5. Block Diagrams
 - Lecture: single and dual vanishing point block diagram construction
 - Project 4: construction of dual vanishing point block diagram
 - Read: Block Diagrams by Lobeck (on Reserve)
6. Cartograms: Transforming size to represent value
 - Lecture: purpose and methods for construction cartograms
 - Project 5: construction of a cartogram
 - Read: Chapter 11
7. Production Methods
 - Lecture: Combining computer generated images with cartographic skills to improve speed, quality, and informational content
 - Lecture: Use of color to enhance comprehension
 - Read: Design Interlude 4
8. Final Project
 - Final Project: each student will make a map series with a common theme employing techniques learned throughout the semester. Students should attempt to make that serve a purpose or are relevant to what they are learning in other courses.