



Section 1. Proposed Course Outline (A general statement of course content that informs class syllabus construction. Once approved, all sections of a given course must include this content, no matter which instructor teaches the course, or the mode of delivery. Divisions must include this new course outline in the Divisional Course Outline binder as required by COPPs.)

Course Number: **GIS 250** Full Course Title for print catalog: **Cartographic Design**

Abbreviated Course Title for Banner: **Cartographic Design** (30 character limit)

Prerequisites: GIS 248 or Instructor approval

Co-requisites:

Grade Option: Graded (with P/NP option) Pass/No Pass only

Number/Type Credits	Term Minimum Contact	Term Maximum Contact	11-Week Term Contact
4 Lecture	40 hours (lecture credits x 10)	48 hours (lecture credits x 12)	44 hours (lecture credits x 11)
__ Lec/Lab	__ hours (lec-lab credits x 20)	__ hours (lec-lab credits x 24)	__ hours (lec-lab credits x 22)
__ Lab	__ hours (lab credits x 30)	__ hours (lab credits x 36)	__ hours (lab credits x 33)
4 Total credits (sum)	40 Total hours (sum)	48 Total hours (sum)	44 Total hours (sum)

Course Description (1000 character limit):

This course provides students with advanced instruction in cartography. The objective of this course is to expand student's skills communicating spatial data effectively. Advanced elements of cartographic layout such as modifying scale bar, direction indicators, and legends are covered. Advanced symbolization, labeling, and annotation will be addressed. GIS map layouts will be exported to Adobe Illustrator, refined and finalized for production.

Course Outcomes and Proficiencies

What will the student *know* or *be able to do* at the end of the course?

What *attitudes* related to the subject will the student hold?

Upon successful completion of this course, the student will:

- 1) Review basic map elements [data frame, legend, scale, compass] and classification techniques.
- 2) Be able to download spatial and tabular data sets and prepare for GIS software.
- 3) Be able to appropriately symbolize and label features
- 4) Prepare charts and graphs.
- 5) Be able to export map layouts to Adobe Illustrator
- 6) Be able to export charts and tables to Adobe Illustrator
- 7) Be able to prepare graphic reports and poster layouts

Assessments Planned

What evidence will demonstrate that students have achieved course outcomes? (assessment tools may include departmental tests, written products, portfolios, juried performances, quizzes and exams, or alternative assessments such as qualitative studies, capstone projects, external reviewers, etc.)

How each outcome will be assessed:

- | |
|---|
| Class activity, weekly map assignments, and final project |
| Class activity, weekly map assignments, and final project |
| Class activity, weekly map assignments, and final project |
| Class activity, weekly map assignments, and final project |
| Class activity, weekly map assignments, and final project |
| Class activity, weekly map assignments, and final project |
| Class activity, weekly map assignments, and final project |

Course Content by Major Topics

What topics will be presented? What are the main activities of the course? What are the central themes?
(See sample at <http://www.lanec.edu/cops/format3.htm>.)

Topics:

Topic 1 – Projection Review and Usage

Topic 2 – Mapable Data

Topic 3 – Map Symbolization

Topic 4 – Thematic Maps

Topic 5 – Working with Graphs

Topic 6 – Large Scale Mapping

Topic 7 – Small Scale Mapping

Topic 8 - Topographic Mapping

Section 2. Proposal Information

Course Developer:

Lynn Songer

Date: October 2011

Catalog year to take effect:

2010-11

Type of Proposal

New course

x Currently 199 or 299

Experimental Course

199 Special Studies

299 Trends

Revised course (If increasing credits, use credit change form)

Reactivated course with no change

Reactivated course with changes

Type of Course:

Lower Division Collegiate (transfer)

x Professional/Technical (required or elective)

Developmental, numbered below 100

Rationale:

How does this proposal further the goals of the program or department?

This course will be an advanced elective for students taking the GIS pathways certificate program and the GIST AAS degree. The course will focus on advanced skills for creating high-quality maps and other geospatial information by integrating GIS and graphic design software. Adding this course supports the goal of the program - to offer GIS courses that provide work-ready skills.

What assessment evidence supports this proposal?

The need to develop a GIS class that focuses on advanced cartographic skills and methodology is supported by our industry advisory board. Advanced skills in design, annotation and the ability to interface with graphic programs will build on the basic GIS analysis skills learned in GIS 245, 246, and 248.

How do you know there is a demand for this course?

GIS classes have been offered for the last three years with growing enrollment. Several students who have finished the pathway certificate program have signed up for independent study classes to continue building their skills. Cartography and other geospatial technologies are listed by the DOL as one of the high-growth career fields. Additionally, offering this proposed course is supported by our advisory committee.

Section 3. Curriculum Equity (<http://www.lanec.edu/cops/curric.htm>)

To promote an environment where all learners are encouraged to develop their full potential, this course will support Lane's Curriculum Equity policy in the following way(s):

Use data related to culturally and ethnically diverse people when creating thematic maps. This will promote an understanding of the power of data visualization to create flawed data interpretation. Data will focus on race, gender, age, religion, disability, national origin, marital status, or class background.

Section 4. For revised courses only: PREVIOUS Catalog/Course Information:

Course Number: _____ Course Title in Banner: _____ (30 characters maximum)

Full Course Title in print catalog:

Prerequisites:

Co-requisites:

Grade Option: Graded (with P/NP option) Pass/No Pass only

Number/Type Credits

__ Lecture
__ Lec/Lab
__ Lab

Term Minimum Contact

__ hours (lecture credits x 10)
__ hours (lec-lab credits x 20)
__ hours (lab credits x 30)

Term Maximum Contact

__ hours (lecture credits x 12)
__ hours (lec-lab credits x 24)
__ hours (lab credits x 36)

11-Week Term Contact

__ hours (lecture credits x 11)
__ hours (lec-lab credits x 22)
__ hours (lab credits x 33)

__ Total credits (sum) __ Total hours (sum) __ Total hours (sum) __ Total hours (sum)

Course Description:

What will change? Course Number Title Course Description Credit hours Contact hours

Section 5. Support Courses (New Professional/Technical course proposals must complete.)

Professional/Technical courses are tracked within programs for purposes of Carl Perkins funding and budgetary planning. Indicate all degree or certificate programs for which this course will be required.

Program	Division
Geographic Information Science and Technology (GIST)	Social Science

Section 6. Overlap Courses (New course proposals must complete.)

While overlap of course materials is not necessarily a flaw, duplication of course materials may lead to inefficient use of college resources. If there is overlap, the faculty of overlapping courses must agree on the extent of overlap and attach a rationale explaining its necessity.

Indicate all departments/courses that this course may overlap. Division Dean of existing course enters one of three options at right. Note: N/A is not an option.

Options:

1. Approved: course does not overlap.
2. Approved: overlap is acceptable. Rationale attached.
3. Disapproved: reasons attached.

Division	Course Number / Title	% Overlap	Option	Division Dean of existing course (Signature required for all options)	Date
Social Science	GIS 245	5			
Social Science	GIS 246	15			

Section 7. Qualification to fulfill degree requirements (complete all relevant forms, available at <http://www.lanec.edu/currshed/drrcforms.htm>, and send to Mary Brau for the Degree Requirements Review Committee):

Form(s) applying for the following degree requirement status have been attached. (Only check this box when forms have been completed and attached.)

AAOT, ASOT-Bus, OTM:

- Arts & Letters
- Social Sciences
- Science / Mathematics / Computer Science

AAOT:

- Ethnic/Gender/Cultural Diversity

AAS, 1-year and 2-year certificates:

- Human Relations

