

Advanced Cartography

In this course, you/we will investigate and formalize aspects of advanced cartographic theory and practice. We will explore advanced cartographic techniques like map animation, web-based and interactive maps, and alternative symbolization strategies. This will be accomplished through the use of a variety of computer software; including GIS, professional graphic design software, mapping applications, and web publishing software. The primary goals of the course are to:

1. Enhance understanding of advanced cartographic design, and it's applications.
2. Learn and use a variety of sophisticated map producing, and map modification software packages.
3. Construct individual animated and/or interactive portfolio or atlas of maps, in accordance with a specific topical focus or theme.

The class will be conducted in a seminar-like atmosphere, where students and instructor alike are responsible for bringing new information to the rest of the class. Class time will be spent reviewing traditional map and atlas design, discussing and planning the design and construction of maps, and learning how to use, and discovering the limitations of, various mapping and design software.

This will be done in workshop fashion with lectures, discussions, student presentations, demonstrations, and a great deal of software use. In a course such as this, all students are expected to become teachers, in a sense. Therefore, the importance of serious student participation cannot be overstated.

Required Materials:

1. No text – all readings will be supplied, and copies placed in a 'reserved box' in the lab (MS221). Please do not remove readings from the lab unless you wish to make copies. Readings will be assigned in advance. Students should be prepared to discuss them at the beginning of class.
2. Purchase appropriate media. Always back-up your work on your own USB device, CDR, or disk.

The lab:

One of the disadvantages of a course like this is that it frequently requires long periods of time with access to the software. The GIS and cartography labs are available to students most days between 8:30am and 5:30pm, except during reserved times – these will be posted. Access will be provided to students who seek to use the lab during the evenings or weekends, provided there is prior coordination with the instructor. Use your NetID to login to the lab computers.

Grading:

35% - Contribution to the class. This involves all of the activities that you will be required to participate in, including short presentations in class, graded and non-graded exercises, demonstrations, group activities, preparedness for class, and your general contribution toward the goals of the course.

15% - Term paper. There will be one term paper on a topic of your choosing, within the general specifications provided by the instructor. The paper will be 7-10 pages in length and is due _____ . More specific guidelines will be provided later in the semester.

35% - Final Project and Poster. on a topic within a general theme set by the instructor, students will design, print, and present a poster consisting of original, and creative cartography. A draft of your poster is due _____ at the start of class. Final printing and presentation of your poster will come during the following weeks.

15% - Portfolio. consist of a mini-electronic atlas (or portfolio) containing approximately 10 maps. You will include a short (~5 pages) paper describing the theme of each map, reasons for your selection of map topics, justification for design decisions, and discussion of the geographic discoveries provided by your maps. A draft of the maps you will be including in your portfolio is due _____. The completed portfolio is due _____.

Grading specification for the final course grade are:

A	90-100 %
B+	87-89.9
B	80-86.9
C+	77-79.9
C	70-76.9
D+	67-69.9
D	60-66.9
F	below 60

One further note. Both undergraduate and graduate students are taking this class. Be assured that undergraduates are not competing with graduate students for grades; the two groups will be graded separately. However, a higher level of performance is expected of graduate students. This will be explained further, later.

Course topics: from two to four weeks each.

1. Traditional map and atlas design and critique
2. Mapping history
3. Cartographic literature search and student presentations
4. Mapping uncertainty
5. Alternative symbologies
6. Map animation and Interactive map design
7. Project planning
8. Student presentations