

DEPARTMENT OF GEOGRAPHY AND PLANNING  
CALIFORNIA STATE UNIVERSITY, CHICO

**GEOG 313 INTRODUCTORY CARTOGRAPHY      FALL 2009**

**SECTION 01:** Butte Hall 501; TTH 12:30 – 1:45am

**Lab:** GEOG 199 B, or C M, W, F 9:00 – 11:00

**Instructor:** Steve Stewart

**Instructor's Office:** Butte Hall 508, x6089, sstewart1@csuchico.edu

**Office Hours:** M 8:00 – 10:00 & TTH 9:15 – 10:45

**Course Prerequisites:** Network literacy via CSCI 110, SOSC 110, or GEOG 219

**Course Description:**

This course provides an overview of fundamental elements of cartographic design and introduces maps as communication devices. Lectures focus on overarching design issues and frameworks, base maps and compilation, color and typography, the design of various maps types (choropleth, dot, isoline, etc.), and printing and digital output issues. Lab work will lead the student through the research, compilation, design and production of map projects. An emphasis will be placed on the use of graphic software: Illustrator for graphic production and Photoshop for image manipulation. While there will be discussion of historical cartography the emphasis is placed on the present technology of mapping, particularly computer mapping.

“Cartography is a specialized form of graphic communication that requires training, practice, and a sense of style” (Madej 2000).

**Objectives:**

- 1) To acquire cartographic/visualization design skills in a supportive environment
- 2) To demonstrate “good practice” in cartographic design (processing, compilation, representation and communication of spatial information)
- 3) To demonstrate a mastery of skills in the use of computer cartographic techniques.

Design is choice. The theory of the visual display of quantitative information consists of principles that generate design options and that guide choices among options. The principles should not be applied rigidly or in a peevish spirit; they are not logically or mathematically certain.; and it is better to violate any principle than to place graceless or inelegant mark on paper. Most principles of design should be greeted with some skepticism, for word authority can dominate our vision, and we may come to see only through the lenses of word authority rather than with our own eyes.

**Course Fee:** There is a \$20 fee for this course. These funds are used to provide students with lab supplies used in the production of maps.

What is to be sought in designs for the display of information is the clear portrayal of complexity. Not that complication of the simple; rather the task of the designer is to give visual access to the subtle and the difficult -- that is, the revelation of the complex

**Texts:** How To Lie With Maps (1996) Monmonier, University of Chicago Press.  
The Island of Lost Maps (2000) Miles Harvey, Broadway Books  
Various Electronic Readings  
Illustrator CS4 Visual Quick Start Guide (2009) Elaine Weinmann & Peter Lourekas, Peachpit Press

**Additional Materials:**

Technical Pens – Staedtler Pigment Liner in .05mm, .3mm, .7mm widths

**Student Responsibilities:**

The lab is a classroom for activity-based learning that includes asking questions, seeking answers, and sharing opinions and experiences. Respect for your colleagues and instructor is paramount to creating this supportive learning environment. Behavior that is contrary to this will not be tolerated.

Attendance and punctuality are mandatory. Being late to class is not only rude, it is disruptive. The beginning of class is set aside for explaining assignments, answering questions about ongoing assignment, and announcing any changes in assignments. This exchange of information is invaluable and missing any part of it could result in unnecessary work or confusion for the tardy student. Unless there is an excusable reason for the tardiness, it is not the instructor's responsibility to repeat the information.

Map assignments need to be completed on time as they are often reviewed in class before being submitted to the instructor. Your colleagues are counting on you to be ready to participate in this co-operative learning activity.

Students are expected to work on their assignments outside of class time during posted open lab hours or at home. The University standard is two hours of work outside of class per hour in class, therefore, students should expect to spend at least six hours per week doing outside readings and map assignments.

Students are asked to keep their work areas clean and to respect the rules of the lab. Equipment that is broken or stolen cannot be replaced easily. Printing is a privilege and should not be misused. All discarded paper should be placed in the appropriate bin in the room.

**Instructor Responsibilities:**

To be knowledgeable about the principles of cartographic design and to explain these concepts as fully as possible so that students can achieve the course objectives.

To be available to students outside of class for five hours a week during designated office hours or by appointment and to post alternative arrangements if designated office hours can not be held. Make an appointment if your need is urgent.

To maintain a supportive student-centered learning environment, however, this does not include fixing problems with the lab equipment. This is the lab manager's expertise and responsibility. I will, however, ensure that technical issues that impact students' coursework in the lab are resolved as quickly as possible.

**Instructor Responsibilities:**

Clearly define and apply evaluation criterion in a fair and uniform manner.

**Student Evaluation:** Your grade is calculated as the total number of points earned out of 580 points. The points are earned in the following manner. The instructor, however, reserves the right to institute an attendance or a late assignment policy if necessary that would result in points being deducted from the earned total. The assignments can be accessed via the classes/313 Directory. Please read or print out copies of these assignments at your earliest convenience.

Assignment	Point Value
Photo Flashcard	5 points
Quiz 1	25 points
Quiz 2	25 points
Quiz 3	25 points
Quiz 4	25 points
Quiz 5	25 points
Ex #1	10 points
Penelope Cartouche Map	100 points
Ex.#2	10 points
Ex. #3	10 points
Isoline Map	100 points
Isoline evaluation	10 points
Choropleth Map & Paper	100 points
Ex #4.	10 points
Final Map	100 points
Total	580 points

**Grade Scale:** To compute the final letter grade, students need to determine what percentage of points they received relative to the total possible amount of points.

100-94% = A

93-90% = A-

89-87% = B+

86-84% = B

83-80% = B-

79-77% = C+

76-74% = C

73-70% = C-

69-60% = D

59% and below earns the student a "F."

**Assignment Schedule:**

DATES	SECTION 01 Tuesday and Thursday 12:30 – 1:45
WEEK ONE	Introduction Penelope Cartouche Map
WEEK TWO	Penelope Cartouche Map
WEEK THREE	Penelope Cartouche Map <b>Penelope Cartouche Map Due Thursday</b> FURLOUGH DAY – (TUESDAY)
WEEK FOUR	<b>Quiz #1 – Island of lost maps Tuesday</b> Illustrator Ex.#1 Isoline Map
WEEK FIVE	<b>Illustrator Ex.#1 Due Thursday</b> Illustrator Ex.#2 Isoline Map
WEEK SIX	Isoline Map <b>Illustrator Ex. #2 Due Thursday</b>
WEEK SEVEN	Isoline Map <b>Quiz #2 Tuesday</b> NACIS CONFERENCE – THURSDAY CLASS CANCELED
WEEK EIGHT	Isoline Map <b>Illustrator Ex #3 – Due Tuesday</b> FURLOUGH DAY – (THURSDAY)
WEEK NINE	<b>Isoline Map Due Tuesday (at beginning of class)</b> Isoline Evaluation In Class Ex. - Tuesday <b>Quiz #3 Thursday</b> Choropleth Map
WEEK TEN	Choropleth Map Choropleth Ex #4 FURLOUGH DAY – (THURSDAY)
WEEK ELEVEN	Choropleth Map <b>Choropleth Ex #4 – Due Tuesday</b> <b>Quiz #4 Tuesday.</b>
WEEK TWELVE	Choropleth Map FURLOUGH DAY – (THURSDAY)
WEEK THIRTEEN	<b>Choropleth Map Due Tuesday</b> Final Map

WEEK FOURTEEN	Thanksgiving Holiday	
WEEK FIFTEEN	Final Map	
WEEK SIXTEEN	Final Map	
WEEK SEVENTEEN FINALS WEEK	<b>Final Map Due at start of final Final Quiz – TBA</b>	

**Reading Schedule:** The readings in *Italics* can be accessed in the Clases/313 folder in the Computer lab. The underlined readings can be accessed by selecting the links from the web based reading list on the following page. On occasion these Internet sites are offline or the address is altered. Please inform the instructor if this should happen. The readings in italics can be accessed via the Clases/313/Readings folder.

### Academic Readings

	SECTION 01
WEEK ONE	Monmonier Chapter 1, <i>Island of Lost Maps</i>
WEEK TWO	Island of Lost Maps, <i>Explaining the Landscape: Erwin Raisz</i>
WEEK THREE	Island of Lost Maps, <i>Thief Case Rattles Sedate World of Rare Maps</i>
WEEK FOUR	<b>Quiz1</b> , Monmonier Chapter 2
WEEK FIVE	Monmonier Chapters 7 & 8
WEEK SIX	<u>Cartographic Depiction of Terrain</u> <u>Cartographic Communication 1-4, Bigfoot,</u>
WEEK SEVEN	<b>Quiz 2</b> <i>Symbolizing Quantitative Data</i> <u>Cartographic Communication 5-6, Monmonier 3 &amp; 9</u>
WEEK EIGHT	Monmonier Chapters 4 & 6
WEEK NINE	<b>Quiz 3</b> , Monmonier Chapter 10
WEEK TEN	<u>Making Maps Easier to Read,</u>
WEEK ELEVEN	<b>Quiz 4</b> Monmonier Chapter 5
WEEK TWELVE	<u>Cartographic and GIS Dictionary, History of Cartography and GIS</u>
WEEK THIRTEEN	Monmonier Chapter 11 & 12, <u>Cartographic Communication 8</u> <i>Making Maps Chapter 11- Color on Maps</i>
WEEK FOURTEEN	Holiday
WEEK FIFTEEN	<i>The Whole Earth, Cataloged, Map Quest</i>
WEEK SIXTEEN	<i>The Revenge of Geography, What if GPS Fails</i>
WEEK SEVENTEEN FINALS WEEK	<b>Quiz 5</b>

### Technical Readings

Your Illustrator CS2 Visual Quick Start Guide is an invaluable reference for gaining proficiency with the software. The instructor will make suggestions as to which chapters are particularly helpful for a given assignment. Students are strongly encouraged to be proactive in learning the software for this course.

## **Classes/313 Technical Readings**

Numerous tutorials on valuable cartographic techniques have been produced by Advanced Cartography students. The best of these are in the Classes/313 folder. While some of them will be assigned as exercises, why reinvent the wheel? The proactive student will review these resources.

## **Web Based Readings**

How to use a compass:

<http://www.learn-orienteeing.org/old/>

Cartographic Communication:

[http://www.colorado.edu/geography/gcraft/notes/cartocom/cartocom\\_f.html](http://www.colorado.edu/geography/gcraft/notes/cartocom/cartocom_f.html)

Cartographic depiction of Terrain:

[http://www.geo.hunter.cuny.edu/terrain/ter\\_hist.html#2.0](http://www.geo.hunter.cuny.edu/terrain/ter_hist.html#2.0)

Making Maps Easier to Read

[www.richardphillips.org.uk/maps](http://www.richardphillips.org.uk/maps)

Cartographic and GIS Dictionary

<http://www.lib.berkeley.edu/EART/abbrev.html>

## **Additional Resources:**

### **Cartographic Links:**

History of cartography and GIS:

<http://www.gisdevelopment.net/history/pre200ad.htm>

David Rumsey Map Collection

<http://www.davidrumsey.com/cartographica.html>

National Atlas Home Page

<http://nationalatlas.gov/>

Zillow Real Estate Appraiser

<http://www.zillow.com/>

EPA Enviro-Facts Pages

<http://www.epa.gov/enviro/>

### **Data Links:**

California Spatial Data Library

<http://www.gis.ca.gov/>

USGS Home Page

<http://www.usgs.gov/>

USGS Data Center

<http://eros.usgs.gov/>

GIS Data Depot

<http://data.geocomm.com/>

USGS 1km World Data

<http://edc.usgs.gov/products/elevation/gtopo30/gtopo30.html>

USGS NED data

<http://seamless.usgs.gov/>

Climate Data

<http://www.worldclimate.com/>

### **Links of Links:**

[http://www.cgrer.uiowa.edu/servers/servers\\_references.html#interact](http://www.cgrer.uiowa.edu/servers/servers_references.html#interact)