**GEOG 5200S – Elements of Cartography: Serving the Community through Cartography [term] Semester [YYYY]**

**Instructor**

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## Time and Location

**Tuesdays and Thursdays 11:10 AM—12:30 PM, in 0140 Derby Hall.**

Class material such as lecture notes, worksheets, lab instructions, handouts will be made available through [Carmen](http://carmen.osu.edu/) under the heading Lectures.

During lectures we will often spend some time to work with sample problems and discuss practical applications. These activities are meant to build a deeper understanding of the subject matter but it also relies heavily on your active participation. You will also sometimes have work to prepare before classes or other types of homework assignments.

## General Education (GE) statement

This course fulfills GE requirements for the Open Option Service-Learning category.

**Goals:**

Students gain and apply academic knowledge through civic engagement with communities.

**Expected Learning Outcomes:**

1. Students make connections between concepts and skills learned in an academic setting and community-based work.
2. Students demonstrate an understanding of the issues, resources, assets, and cultures of the community in which they are working.
3. Students evaluate the impacts of the service learning activity.

## Course Description

“*Show me a geographer who does not need them [maps] constantly and want them about him, and I shall have my doubts as to whether he has made the right choice in life.”*Carl O. Sauer (1889-1975)

The [term] Semester [YYYY] offering is the service learning version of Geography 5200. Much like Geography 5200, this is an introduction to the art, craft, and science of cartography. We will emphasize important aspects of cartographic communication, including: map purpose, geographic phenomena and their measurement, data collection and creation, data manipulation such as classification and generalization, and various map design issues such as color choice, typography, and layout. With the service learning designation, the course will provide students with opportunities to serve local community partners through cartography.

Service Learning: “A form of experiential education characterized by student participation in an organized service activity that: 1) is connected to specific learning outcomes, 2) meets identified community needs and 3) provides structured time for student reflection and connection of the service experience to learning” --*OSU Service Learning Initiative*

“*Learning map craft is like learning to ride a bicycle. You cannot learn from a book. You take a bicycle, with an experienced friend to guide, encourage, and assist you, and you try...”* British War Office Information Handbook, ca 1945.

Much emphasis is put on hands-on experience for you to learn to apply visual and cartographic techniques to spatial information.

## Texts

**Required:**

Slocum T. et al., 2009, Thematic cartography and geovisualization, 3rd ed., Pearson Prentice Hall, 561p.

Lectures will cover the most of the book topics but in a different fashion so the text serves as a true complement to enrich the lectures, and provide more detail. (The 2nd edition is also OK but the new text is significantly re-organized and updated)

Goodes’s World Atlas, 22nd Ed., Rand McNally.

The atlas is used for illustration and for class exercises. It is also a valuable source for good design practice, one of the few things where I encourage copying work of others.

There is a bundle of these two items, ISBN-10: 032156197X , that should save you about $20 off the total list price.

The New York Times, or other newspaper with good maps and graphics in their coverage of current events. This will be used for class discussions and student presentations during the course.

Free copies of NYT are available to students in the residence halls and student discounted personal subscriptions run ~$20 for the semester.

## Grading Policy

Overall credits for the course are given approximately as follows:

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| --- | --- |
| **Lab Assignments** | ~350 points (or ~50%) |
| **In-class work & Homework** | ~40 points (or ~5%) |
| **Term project and related work** | ~220 points (or ~30%) |
| **Reading questions** | ~100 points (or ~15%) |

The credits given to each course component reflects my notion that I can only facilitate for you to acquire theoretical and practical knowledge. *Only you can learn*what we want you to. Consequently, assessments relate mainly to your own learning, such as demonstrating practical use of the covered topic matter in lab, homework and an individual project.

Final letter grades will be assigned based on how many percent of total points available you have earned.

92.5 <= A  
90.0 <= A- < 92.5  
87.5 <= B+ < 90.0   
82.5 <= B < 87.5  
80.0 <= B- < 82.5  
77.5 <= C+ < 80.0  
70.0 <= C < 77.5  
60.0 <= D < 70.0  
E < 60.0

## Attendance, Timeliness & Examination Policy

**Lecture, in-class work & homework**: You are expected to attend lectures twice a week on basic cartographic principles and map design. Most classes have time allotted for discussions, in-class work and other activities. Your contribution in these and in class generally, will be noted, and used to determine part of your final grade, just showing up won't count a whole lot toward this component! Obviously, you will receive no credit for in-class work if you are not present.

During the semester, there will be several assignments. The main purpose of these is to provide an opportunity to learn how to apply and reflect upon the things we cover during the lectures. If you are having difficulty with assignments you should ask for assistance, whether from fellow students, from the course TA, or from me. Whatever you do, ask someone but please note the academic integrity policy!

**Map presentations:** You will be asked to present to the class and discuss the design of maps on current events. This activity will be ongoing throughout the semester.

**Reading Questions:** You will complete readings on cartography, map design and/or service learning principles each week, most from the textbook. To ensure that the reading assignments are completed, you will be expected to hand in answers to reading questions provided by the instructor 1 week in advance of their due date. These are essentially take-home exams administered through Carmen.

**Lab Assignments**: You are welcome to discuss the labs amongst yourselves, in fact this is encouraged, but the final product you hand in *must be your own work* (see Academic Integrity Policy below). Details of the lab assignments will be posted on the course web site.

* Attending lab time is important since these times provide you with access to the lab instructor and to other students. Keep in mind that not all labs will necessarily be finished in the allotted lab time. Students will be expected to finish labs outside of class during posted lab room hours.
* A few words about lab grading: Given that this class has no pre-requisites, the instructor understands that many of the concepts and techniques discussed early in the course will be new. Recognizing this, the first few labs will contain more detailed instructions.

**Critical Reflection Exercises:** To ensure that students develop critical thinking skills about how cartography can be used in serving local communities and to ensure that the final group projects are discussed throughout the entire semester, students will complete four critical thinking and reflection exercises. Example questions include: (1) Who benefits from the service learning component done in this class? (2) What are some of the issues that exist in the community? (3) How/why were these conditions created? (4) How does this project/class contribute to addressing the particular issue?

**Final community mapping group project:**Students are expected to work in small groups and with community organizations [partner names] to design maps, e.g. poster-size maps and/or brochures that explain a community issue, spatial process, or geographic phenomenon in and around [the neighborhood name]. Student groups will be expected to present their topic/map to the community partners and invited guests during the last class. In lieu of a final exam and as part of the final community mapping project, you will complete a final mapping project individual assessment. This part of the final mapping project will be completed individually, but will be based on the group map as it relates to the themes of the course.

* Some general topics that lend themselves well to mapping have already been identified (identification of historical landmarks and points of pride, music and entertainment culture, housing ownership and vacancy, safety and crime prevention, access to public transportation). Student groups, in consultation with the instructor and with the community partner, will be expected to engage in all stages of the map design process. Additional topics can be developed in consultation with the instructor and the community partner.

*All course work (labs, homework, individual project work) are expected by the due date*. A late penalty of at least 10 percentage units will be taken off each day after the due date.

If you have a genuine reason (known medical condition, a pile-up of due assignments on other courses, ROTC, athletics teams, job interview, religious obligations etc.) for being unable to complete work on time, then some flexibility is possible. However, if in my judgment you could reasonably have let me know *beforehand* that there would likely be a delay, then a late penalty will still be imposed if I don't hear from you until *after* the deadline has passed. For unforeseeable problems, I can be more flexible.

If there are ongoing medical, personal, or other issues that are likely to affect your work all semester, then please arrange to see me to discuss the situation.

**There will be no make-up exams or labs except for documented emergencies.**

**Schedule**

The most up to date schedule will always be posted on [Carmen](http://carmen.osu.edu/) under Course info. Any significant changes to the schedule will be announced well in advance.

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| **Topical outline, readings & assignment schedule** | | | |
| Day | Topic | Reading | Notes |
| Week 1 | Introduction/History of Western cartography | Slocum, Ch.1 |  |
|  | Getting to know ArcGIS | Lab Guide I |  |
| Week 2 | What are maps for? What is cartography for? | Field and Demaj, 2012 |  |
|  | Map elements | Slocum, pp. 188-202 |  |
| Week 3 | Thinking about service learning & cultural sensitivity discussion | Norwood and Cumming, 2012; Jamie Oliver video | Reflection 1 & reading questions |
|  | Basics of cartographic design | Slocum, pp. 211-221; Lab Guide II | Lab I due |
| Week 4 | Symbols on maps | Slocum, Ch. 5 (skip Section 5.4) |  |
|  | Careers in Cartography |  | Project proposal due |
| Week 5 | Field trip to project site | Reading specific to project | At project site |
|  | Scale and generalization | Monmonier, 1996, Ch. 3 Lab Guide III | Lab II due |
| Week 6 | Research, representation, and positionality | TBD based on final project ideas | Reflection 2 & reading questions |
|  | Thinking about symbols on maps | Wood and Fels, 1986, pp. 54-61 |  |
| Week 7 | Classifying data on maps | Slocum, Ch. 4 (Section 4.1 only) | Project proposal due |
|  | Color and cognition | Slocum, Ch. 10; Lab Guide IV | Lab III due |
| Week 8 | Designing choropleth maps | Slocum, Ch. 14 (skip Sections 14.4 and 14.6) |  |
|  | Dot density maps | Slocum, Ch. 17 | Client contact due |
| Week 9 | Proportional symbol maps |  |  |
|  | Political uses of maps/Update on project progress | Assigned by groups, Lab Guide V | Lab IV due |
| Week 10 | Spring Break! |  |  |
|  | Spring Break! |  |  |
| Week 11 | Isarithmic mapping | Slocum, Ch. 16 (skip Sections 16.3 and 16.6) | Reflection 3 & reading questions |
|  | Modeling the earth | Slocum, Ch. 7 |  |
| Week 12 | Projections | Slocum, Ch. 8 |  |
|  | Choosing the right projection | Slocum, Ch. 9 (Section 9.1) ; Lab Guide VI | Lab V due |
| Week 13 | How to McGyver a map (I) |  |  |
|  | How to McGyver a map (II) |  |  |
| Week 14 | Guest lecture |  | Reflection 4 & reading questions |
|  | Project work day |  | Lab VI due |
| Week 15 | Project check-in |  |  |
|  | Project presentations |  | At project site |
| Finals week | Final Project Reporting |  | Final reports due |

## Academic Integrity Policy

Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term “academic misconduct” includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct <http://studentlife.osu.edu/csc/>.”

***What this really means is***: If I suspect that a student has committed academic misconduct in this course, *I am obligated* by University Rules to report my suspicions to the Committee on Academic Misconduct. If COAM determines that you have violated the University’s *Code of Student Conduct*, the sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the University. Please do not put yourself in that situation.

If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact me.

Other sources of information on academic misconduct (integrity) can be found on the Committee on Academic Misconduct web pages ([oaa.osu.edu/coam/home.html](http://oaa.osu.edu/coam/ten-suggestions.html))

## Disability Services

Students with disabilities that have been certified by the Office for Disability Services will be appropriately accommodated, and should inform the instructor as soon as possible of their needs. The Office for Disability Services is located in 150 Pomerene Hall, 1760 Neil Avenue; telephone 292-3307, TDD 292-0901; <http://www.ods.ohio-state.edu/>.