

# **Geography 2200 –SP15**

## **Mapping our World**

### **SYLLABUS**

**3 credit (semester) hours**

**Time: Tuesdays & Thursdays, 9:35-10:55am**

**Location: Derby Hall 0140**

Instructor: Ola Ahlqvist, PhD, Associate Professor, Geography

Office phone: 247-7997

Office address: 1049B Derby Hall, 154 N Oval Mall

Office hours: Mondays 9-11am, or by appointment, or drop-in (my door is always open when I am in but I reserve the right to be busy)

GTA: Bo Zhao

Office address: 0126 Derby Hall, 154 N Oval Mall

Office hours: Fridays 9:30-11:30am

### ***Course Description***

The powerful language of maps visually shows trends, and patterns that are not apparent in other data presentations; Corporations, government, media, and researchers use maps and geographic information technology to understand and visualize data on for example natural resources, flows of trade, historical events, property management, and diseases. In this course we will explore what makes spatial information special, how and why maps are such a powerful tool to understand an increasingly complex world, and how modern technology is currently transforming the art and science of map making. In hands-on field work, practical exercises and discussions students will develop the knowledge, skills, and dispositions that constitute geographic information literacy.

The main goal is to give students a geovisual literacy foundation (including spatial quantitative reasoning methodologies) so students can realize the value of geographic knowledge and develop their ability to analyze real-world, critical problems such as understanding international markets, demographic patterns, business locations, natural

disaster recovery and responses, watershed preservation, and much more. Specifically, the following course objectives have been identified:

After successfully completing this course, students should be able to:

- employ basic methods of spatial data-gathering, presentation, and interpretation
- interpret map symbology in order to analyze and critically evaluate the spatial structure of and relationships among spatial phenomena
- demonstrate familiarity with some basic concepts of descriptive and inferential statistics in order to understand some unique properties of spatial statistics
- apply statistical ideas to seek explanations for unusual or interesting patterns on maps
- evaluate the impact of spatial data sampling, uncertainty and scale on map use

### ***GE Data Analysis***

This course meets the requirements of the General Education category Data Analysis. The intent of the Data Analysis GE is to enable students to deal with problems of data-gathering, presentation, and interpretation. Students should develop an understanding of problems of measurement, be able to deal critically with numerical and graphical arguments, gain an understanding of the impact of statistical ideas in daily life and specific areas of study, and recognize the uses and misuses of statistics and related quantitative arguments.

The GE goals for Data Analysis are: Students develop skills in drawing conclusions and critically evaluating results based on data.

Expected Learning Outcomes: Students understand basic concepts of statistics and probability, comprehend methods needed to analyze and critically evaluate statistical arguments, and recognize the importance of statistical ideas.

This course meets these goals and objectives by exposing students to the problems of data gathering, presentation, and interpretation, in the context of spatial, statistical maps.

## **Texts**

### **Required:**

Kimerling, A. J., Buckley, A. R., Muehrcke, P. C., & Muehrcke, J. O. (2011). *Map Use: Reading and Analysis*. 7<sup>th</sup> Ed., Esri Press.

How to Lie With Maps, 2nd Edition. Mark Monmonier, 1996. I think there are PDFs of this available on the web.

The New York Times, or other newspaper with good maps and graphics in their coverage of current events.

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

Additional required readings will be provided in Carmen

## 2200 Schedule (still tentative)

Week #	Topic	Practical Exercise (PE)
1	Why is spatial special? Introduction to geographic information	1. Spatial observations
2	Spatial observations	
3	Visual Variables	2. Drawing a map
4	Map coordinates and projections	
5	Hot and cold: weather patterns and what makes a climate	3. Isoline climate maps
6	Isoline maps and analysis	
7	Crossing the line: the nature and significance of political boundaries	4. Map accuracy and uncertainty
8	Remote sensing and image maps	
9	Where's Wall Street? The wealth of nations and their connections	5. Spatial data exploration and autocorrelation
10	Multi-variate data and visualization	
11	Spatial pattern analysis	6. Spatial pattern analysis
12	Spatial association analysis	
13	Volunteered geographic information and the new Wiki cartography	Term Paper
14	What can maps do for us? Personally selected topic related to the course material	
15	What can maps do for us? Cont.	

*The most up to date schedule will be on [Carmen](#) under Course info. Any significant changes to the schedule will be announced well in advance.*

## **Lectures**

**Tuesdays and Thursdays 9:35 — 10:55 in Derby Hall.**

Class material such as lecture notes, worksheets, handouts will be made available through [Carmen](#) 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 they also rely heavily on your active participation. There will also be seven practical exercises that will be introduced during class time but will have to be completed outside of scheduled class time.

## **Grading Policy**

Overall credits for the course are given approximately as follows:

In-Class Participation: 10%

This includes a short in-class presentation on one of the chapters in How to Lie with Maps (5%), and the remaining 5% will come from your attendance and active participation in class activities.

Map Review: 5%

You will review one published map from a reputable news source in a five-minute presentation once during the quarter.

Practical Exercises: 45%

There will be six main practical exercises where you gain first-hand experience of data gathering in the field through observations, recording data, as well as using existing databases. As part of each practical exercise you will present your results in a written report where maps are often an integral component.

Exams: 40%

There will be one midterm exam and one final project, a term paper. The Term Paper is a major deliverable that helps you develop/demonstrate your understanding of basic methods of spatial data-gathering, presentation, and interpretation. It also asks you to demonstrate the value of geographic knowledge and how it can be used to analyze real-world, critical problems.

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***

*All course 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. This applies to my ability to offer make-up exams as well.

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.

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 is not enough! Obviously, you will receive no credit for in-class work if you are not present.

### ***Academic Integrity Policy***

You are welcome to discuss the assignments amongst yourselves, in fact this is encouraged, but the final product you hand in must be your own work.

Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the University's *Code of Student Conduct*, and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must recognize that failure to follow the rules and guidelines established in the University's [Code of Student Conduct](#) and this syllabus may constitute "Academic Misconduct."

The Ohio State University's *Code of Student Conduct* (Section 3335-23-04) defines academic misconduct as: "Any activity that tends to compromise the academic integrity of the University, or subvert the educational process." Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the University's *Code of Student Conduct* is never considered an "excuse" for academic misconduct, so I recommend that you review the Code of Student Conduct and, specifically, the sections dealing with academic misconduct.

***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* (i.e., committed academic misconduct), 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/home.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/>.