



evaluation

check-ups 

independent problem 1 

independent problem 2 

final 

helpful spaces

GIS tutorials - <https://www.youtube.com/user/GISatMidd>

Moodle site - <http://moodle.middlebury.edu/course/view.php?id=1575>

ArcGIS help - <http://resources.arcgis.com/en/help/main/10.2/>

rules

There is no required text for this course.

If you don't complete a **check-up** by Tue 9am, you'll receive a zero. Please note, we will toss the lowest of the six scores.

By the end of the **lab sessions**, you must turn in a short deliverable that presents the results of your work. Instructors will provide you feedback while you work on these labs. If you have stayed to the end of the lab session and still need more time to complete the work, then you may turn in the deliverable by the beginning of lecture on Thurs. Incomplete work that indicates absence or haste will lead to deductions on your final grade.

During **independent problems**, you are not authorized to discuss any part of the problems with current or past students or instructors.

Conceptual plans are due at the beginning of lecture on Tue. Any work submitted after the first five minutes of lecture will result in a step deduction for the independent problem (e.g. A- become B+).

Implementations are due at the beginning of lecture on Thurs. Any work submitted after the first five minutes of lecture will result in a step deduction (see above).

If necessary, **final corrections** are due by Friday at 5pm. Unexcused late work will again result in a step deduction.

In **lectures**, please turn off your phone and put it away. If you must use your laptop, please sit in the first three rows. If you use your laptop for something other than taking notes during lectures, you will lose the privilege.

The **final** will be take-home and due in our exam shell.

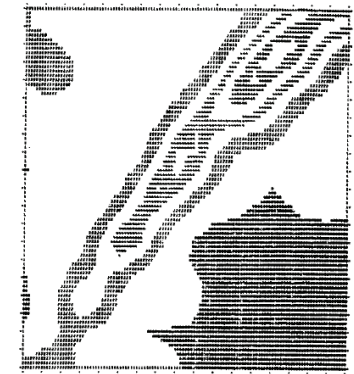
If you have a documented disability and think you may need accommodations in this class, **please** contact me or Jodi Litchfield (litchfie@middlebury.edu), the ADA Coordinator, asap. All discussions will remain confidential.

fundamentals of geographic information systems

prof Jeff howarth
geography 120
fall 2014



Original Map Z




Smoothed Map Z*

objectives

By the end of this course, you should be able to:






- (1) think spatially across disciplinary boundaries
- (2) recognize kinds of GIS problems and reliable plans for solving them
- (3) gather and manipulate geographic data
- (4) critically discuss geographic evidence
- (5) communicate effectively with maps and visual layouts
- (6) work effectively with ArcGIS Desktop and several extensions

places

 **lecture**, mbh 220
tr 9:30-10:45am

mbh 317/9, **lab**
t 1:30-4:15pm
t 7:30-10:25pm

people

-  **Prof. Jeff Howarth**, mbh 329, jhowarth@midd
-  **Bill Hegman, GIS Specialist**, mbh 315, whegman@midd
-  **Kat Schweikert, ASI**, mbh 325, kschweikert@midd
-  **Dr. Joseph Holler, GIS Teaching Fellow**, mbh 324, jholler@midd
-  **Jennifer Immich, GIS Teaching Fellow**, mbh 324, jimmich@midd

	thur	tue
raster model		sep 9 lab 1
cartesian space	11	check-up lab 2 16
topographic space	18	check-up lab 3 23
suitable space	25	check-up lab 4 30
	begin ip 1	conceptual plans due
	implementations due	final corrections due
vector model	16	check-up lab 5 21
spatial queries	23	check-up lab 6 28
spatial aggregations	30	check-up lab 7 4
	begin ip 2	conceptual plans due
geographic space	13	18 lab 8
	implementations due	final corrections due
network space	20	lab 9a 25
disruptive space	27	lab 9b 2
the end	4	final due 9



Most weeks, the course flows from Thursday to Tuesday.

In Thurs lectures, we will **think through a problem**, studying how to: translate a verbal statement of a spatial problem into a visual representation, create a conceptual plan for solving the problem with a GIS, and examine how these GIS tools work.

Between Fri and Tue, you will **click through video tutorials** that implement our conceptual plan for solving the problem. The videos will be posted on the GISatMid YouTube channel by Fri evening.

By 9am on the following Tue, you must complete a short check-up. This short quiz will touch on concepts and procedures from the week's lecture and video playlist. Check-ups will be hosted by Moodle and can be accessed through CourseHub. If you don't complete the check-up by Tue 9am, you'll receive a zero.

In Tue lectures, we will discuss the check up and then critique our results from the tutorial. After this, we will practice developing plans to solve problems that are analogous to the tutorial. In lab sessions, you will work in pairs to implement these solutions with a GIS. By the end of the lab session, you will turn in a short deliverable that presents the results of your work. Incomplete work that indicates absence or haste will lead to deductions on your final grade.

Four times over the course of the semester, we will break from this collaborative learning environment in order for you to solve **INDEPENDENT PROBLEM SETS**.

The **ips begin** on thurs. You will receive two problems and descriptions of the datasets that you must use to solve them. With only these descriptions, you will develop a **conceptual plan** for solving each problem. Conceptual plans are due at the beginning of the Tue lecture.

On Tue, the datasets for solving the problems will be made available to you so that you can implement your conceptual plans and, if necessary, correct your original solutions. Your **implementations** are due at the beginning of lecture on Thurs.

After you submit your work, we will look at the answers and discuss solutions. If necessary, you will then have until Friday 5pm to submit the **final corrections** to your implementation.

