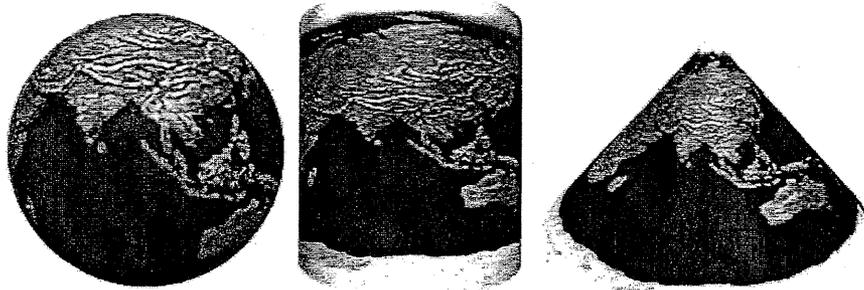


Geography 321: Cartography and Map Communication

Fall 2005



Classroom: 203 Hanna Hall
Class Times: M, W, F 1:30 – 2:20 pm
 M 12:30 – 1:30 pm (Lab time)
Instructor: Dr. Yu Zhou
 209A Hanna Hall
 419-372-7828
yzhou@bgsu.edu

Office Hours: T & TH. 11:00 am – 2:00 pm or by appointment

Course Objectives

This course focuses on the art and science of Cartography and the design and construction of maps. GIS (Geographic Information Systems) technology is now an essential tool in solving many spatially-related problems. GIS, however, has its roots in Cartography. Cartographic knowledge and map making skills are foundations necessary for learning Geographic Information Sciences. The course is designed for those who are interested in learning GIS as well as those who are interested in spatial visualization and the mapping processes.

Learning Outcomes

After completing this course, each student should be able to understand:

- ✓ the nature of maps in traditional and contemporary senses;
- ✓ the fundamental cartographic concepts such as map scale and map projection;
- ✓ the process of mapmaking and the significance of cartographic generalization; and
- ✓ the principles of map design and spatial visualization.

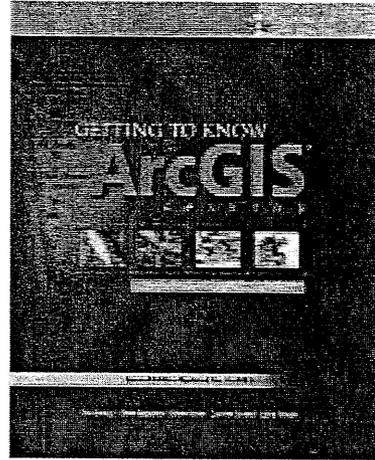
A student should also build skills in using ArcGIS software to:

- ✓ manage spatial and attribute data;
- ✓ transform spatial data to specific coordinate systems and projects;
- ✓ generate high-quality thematic maps; and
- ✓ perform basic GIS analysis.

Required Textbook

Getting to Know ArcGIS (2nd edition) by Tim Ormsby, Eileen Napoleon, Robert Burke, Laura Feaster, and Carolyn Groessl. ESRI Press, 2004. ISBN: 158948083X

This best-selling workbook is based on ArcGIS Desktop version 9, the latest release of the world's leading geographic information systems (GIS) software. You can buy this book at either BGSU bookstore or www.amazon.com.



Grades

Your grade will be based on three components: *computer labs*, *projects*, and *exams*. No extra credit work will be allowed. Twelve computer labs are worth 36% of your total grade. Each computer lab has two parts—exercises from *Getting to Know ArcGIS* and an “*On Your Own*” practice to enforce your learning. Two projects are worth 24% of your total grade. The details of each project will be given in advance. Two exams are worth 20% of your total grade. Dates for both exams are listed in the tentative schedule. Makeup exams are not allowed unless in the cases of proven illness or emergency situations. The final exam is worth 20% of your total grade. Please note that the University assigns the time and date of the final exam. No one has the sole authority to arbitrarily move the final exam in any course.

Letter grade will be based on the following scale: **A-** >89.4%; **B-** between 79.5% and 89.4%; **C-** between 69.5% and 79.4%; **D-** between 59.5% and 69.4%; and **F-** <59.4%.

Some BGSU Policy Statements

Codes of Conduct and Academic Honesty Policy: The instructor and students in this course will adhere to the University’s general Codes of Conduct defined in the *BGSU Student Handbook*. Specifically, the Code of Academic Conduct (Academic Honesty Policy) requires that **students do not cheat, fabricate, plagiarize or facilitate academic dishonesty**.

Disability Policy: If the student has a documented disability and requires accommodations to obtain equal access in this course, he or she should contact the instructor at the beginning of the semester and make this need known. Students with disabilities must verify their eligibility through the Office of Disability Services for Students.

Religious Holidays: It is the policy of the University to make every reasonable effort allowing students to observe their religious holidays without academic penalty. In such cases, it is the obligation of the student to provide the instructor with reasonable notice of the dates of religious holidays on which he or she will be absent. Absence from classes or examinations for religious reasons does not relieve the student of responsibility for completing required work missed.

- ◆ Respect for one another
- ◆ Cooperation
- ◆ Intellectual and spiritual growth
- ◆ Creative imaginings
- ◆ Pride in a job well done

Tentative Schedule

Date		Agenda
August	22	Introduction
	24	Map and Cartography
	26	The Earth/shape and size Lab 1
	29	The Earth/location Lab 2
	31	The Earth/map scale
September	2	The Earth/direction
	5	Labor Day (No Class)
	7	Map Projection/classification
	9	Map Projection/distortion
	12	Map Projection/identification Lab 3
	14	Map Projection/selection
	16	Coordinate Reference Systems
	19	Data Gathering/survey Lab 4
	21	Data Gather/air photos
	23	Data Gather/remote sensing
	26	Data Gather/GPS Lab 5
	28	Test I
	30	Map Compilation and Map Design
October	3	Cartographic Generalization Lab 6
	5	Classification/basics
	7	Classification/method
	10	Fall Break (No Class)
	12	Simplification
	14	Symbolization
	17	Map Design/color Lab 7
	19	Map Design/pattern
	21	Map Design/typography
	24	Mapping with Point Symbols Lab 8
26	Mapping with Line Symbols	
28	Mapping with Area Symbols	
31	Mapping with Statistic Data Lab 9	
November	2	Test II
	4	Isoline Maps
	7	Terrain Representation Lab 10
	9	Contour Map/interpretation
	11	Veteran's Day (No Class)
	14	Contour Map/profile & slope Lab 11
	16	Cartogram
	18	Introduction to GIS
	21	Production and Reproduction Lab 12
	23	Thanksgiving Recess
	25	Thanksgiving Recess
	28	<i>Project</i>
30	<i>Project</i>	
December	2	<i>Project</i>
	5	<i>Project</i>
	7	<i>Project</i>
	9	<i>Project Presentation/Review</i>
	15	FINAL EXAM (1:15-3:15 pm)