

**GS407/507 Introduction to Geographic Information Systems Using ArcView GIS  
POLICIES AND PROCEDURES**

Summer 2007 Term - Western Oregon University  
3 CR M-F, June 26-30, 9:00 AM – 4:00 PM Natural Sciences Bldg, Rm 216-218

INSTRUCTOR: Dr. S. Taylor

OFFICE: RM 210 Natural Sciences Bldg

OFFICE HOURS: By Appointment

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**COURSE DESCRIPTION:**

This course focuses on the application of Geographic Information Systems (GIS) to relevant problems in the Earth Sciences. GIS is comprised of computer hardware and software that links digital maps to spatial data. GIS systems provide the capability to store, retrieve, display, and quantitatively analyze map-based spatial information. Class topics include introductory GIS concepts, digital cartography, database functions, map projections, spatial data models, vector / raster data structure, spatial data analysis, image processing, and terrain modelling.

**THE PROFESSOR'S PHILOSOPHY ON UPPER DIVISION EARTH SCIENCE / GEOLOGY COURSES:**

The upper division Earth Science / Geology course sequence is designed for mature, serious students who are willing to work hard, play hard, have fun, and learn in-depth skills / concepts in a professional academic setting. By default, our student population is very diverse with a wide array of skills, interests, and career goals. The student population ranges from serious Earth Science majors with focused career objectives, to Geology / Earth Science minors to Science Education majors. As such, the professor is charged with serving a diverse array of student interests and career goals in the most professional manner possible. The problem-solving and technical skills acquired via training in the Earth Sciences are highly valuable (and marketable), regardless of career track. Students are expected to actively participate in the learning process and make a significant contribution to the academic integrity of the Earth Science program at Western Oregon University. The ultimate goal of the program is to provide graduates with the academic skills that will enable them to be highly competitive in graduate school or the career marketplace. *GO TEAM!*

**TEXTS/READING:**

Journal articles, tutorials, and text readings, to be provided by the instructor.

Getting to Know ArcView Tutorial – each student will be assigned a photocopied version of an ArcView tutorial manual. (Note: I want these back!).

**CLASS NOTES:**

A comprehensive set of instructor class notes are available for download via the internet. The class web site is at URL <http://www.wou.edu/taylor> ... and follow the links to the "ES492 – GIS Applications" home page. The 1-week summer course will utilize the ES492/592 class website.

The class notes are available as Adobe Acrobat Reader files (\*.pdf file). Acrobat Reader is free and is installed on many campus PC's. For home installation, Acrobat Reader is also available for download at the class web site, but you will be responsible for properly installing the software (and will do so at your own risk!).

## **A NOTE ABOUT COMPUTER-BASED COURSES:**

This class will use hardware, software, and the campus network. As such, there are endless possibilities for software glitches, system failure, and total confusion. Your patience with lab exercises, assignments, course content, and software / hardware glitches will be greatly appreciated. **Our motto for this session is: “expect the worst and hope for the best”.**

## **STUDENTS WITH DISABILITIES:**

Any student who has a disability that requires accommodation, please make an appointment to see me.

## **EVALUATIONS AND EXPECTATIONS:**

Student performance will be evaluated on the basis of 2 quizzes, daily lab exercises, and a final project. The following is a breakdown of evaluation points and letter grades:

Tutorial / Lab Exercises	130 pts
Quizzes	50 pts
Final Project	70 pts
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TOTAL:	250 pts

### Final Grading Scale

Percent Range of Total Points	Letter Grade	Percent Range of Total Points	Letter Grade
94-100%	A	77-79%	C+
90-94%	A-	73-76%	C
87-89%	B+	70-72%	C-
83-86%	B	67-69%	D+
80-82%	B-	63-66%	D
		60-62%	D-
		<60%	F

## **A NOTE ABOUT LOST OR MISSING WORK**

The instructor will only grade work that is received and physically visible. Any missing work (lab assignments, homework, quiz/test answer sheets) will receive a “0” on the grade sheet. This policy applies to work lost by the student or instructor. If the student demonstrates that the work was turned in, but is missing due to the instructor’s error, then the student will be afforded an opportunity to make up the work and resubmit it for graded credit. Otherwise, the student will not receive credit for lost or missing work.

## **CHANGE OF SYLLABUS - POP QUIZZES - UNANNOUNCED HOMEWORK ASSIGNMENTS**

The instructor reserves the right to modify the syllabus and class schedule at any time during the term. Students will be notified of such changes in a timely manner. The instructor also reserves the right to administer pop-quizzes and assign unscheduled homework / class assignments at any time. All students will be responsible for completing this work and it will comprise part of the final class grade.

**TENTATIVE CLASS SCHEDULE:** This outline should be considered tentative at best. The class schedule and assignments may be modified by the instructor at any time. Note Text Reading Abbreviations below “GTAV” = Getting to Know ArcView Tutorial.

<u>Day</u>	<u>Dates</u>	<u>Class Content</u>	<u>Lab Exercises</u>	<u>Tutorials</u>
1	June 25	Class Policies, Introduction Overview / Basics	Intro Labs	GTAV Section 1 (p. 7-1 to 10-21)  In-Class Exercises
2	June 26	Vector-Raster Data	Vector-Raster Data	GTAV Section 2 (p. 11-1 to 12-20)  In-Class Exercises  <i>Note: 9 – 10 AM Open Lab Time for Project Work; Morning Lecture Starts at 10:00 AM</i>
3	June 27	Map Projections/ Coordinates	Map Projections	GTAV Section 3 (p. 13-1 to 14-20)  In-Class Exercises  <i>Note: 9 – 10 AM Open Lab Time for Project Work; Morning Lecture Starts at 10:00 AM</i>
4	June 28	Working with Raster Data Spatial Analyst	Spatial Analyst Exercise	GTAV Section 4 (p. 15-1 to 16-23)  In-Class Exercises  <i>Note: 9 – 10 AM Open Lab Time for Project Work; Morning Lecture Starts at 10:00 AM</i>
5	June 29	Other ArcView Extensions/ Loose Ends / Project	Open Lab Work	GTAV Section 5 (p. 17-1 to 20-13)  <i>Note: 9 – 10 AM Open Lab Time for Project Work; Morning Lecture Starts at 10:00 AM</i>
		<b>Exit Quiz – Friday June 29</b>		In-Class Exercises
	July 2-13	Independent Class Project / Lab-Tutorial Portfolio Compilation		
<p><b>All portfolio materials and final project due on Friday July 13, 2005 by 5:00 PM. Late work will be accepted up to one week after the final due date with a minimum 20% point reduction. Any work turned in after July 21, 2005 will receive a “0”.</b></p>				

### **Optional Post-Session Meeting**

Thursday July 5, 2006 10 AM – 3 PM, NS218A

RE: Follow-up meeting for final project help session, tutorial completion, and related class work.