

# Spring 2009 Syllabus



## Introduction to Geographic Information Systems (GIS)

**Course Prefix/Number:** GIS4043/L

**Course Credit Hours:** 4 (lecture 3 + lab 1)

**Instructor and Contact Information:**

Ms. Amber Bloechle, MS email: [abloechle@uwf.edu](mailto:abloechle@uwf.edu) phone: 850-857-6121

**Prerequisites or Co-Requisites:** GIS3015/L.

Students should be able to perform basic Windows operations: copy files, navigate directories, open programs, unzip and zip files, etc. Possess a desire to learn GIS software and science.

**Program Goals:**

This is a required course for completion of a certificate in GIS.

**Course Description:** The purpose of this course is to teach the theory and practical use of Geographic Information Systems (GIS). Major components of the course include computer representation of geographic information, the construction of GIS databases, spatial analysis with GIS, application areas of GIS, and social and management issues that concern GIS. The lecture portion of the course is intended to provide the theoretical underpinnings of GIS while the lab portion of the course is intended to allow the student to put into practice those concepts and techniques described in lecture. At the end of the course, the student is expected to have an understanding of elementary GIS theory, working knowledge of ArcGIS software, and the ability to develop GIS-based solutions to geographic modeling and analysis tasks.

**Required Text:** To be included in official syllabus as requirements may change. Students will be notified via email well before course begins with required text information.

**Course Format:** This is an online course and you will not be required to meet at any specific time. Instead, you will complete your lessons and communicate with your instructor and classmates using UWF email, course blog and eLearning website discussion board. All new students must activate their student account in ARGUS <https://argus.uwf.edu/cp/home/displaylogin>

**eLearning:** This is where you will find course materials and assignments. Access eLearning online through ARGUS or search [elearning.uwf.edu](http://elearning.uwf.edu) for direct access.

**ArgoMail:** All students are required to activate and use their student email account for communication. Access online through ARGUS or search [argomail.uwf.edu](http://argomail.uwf.edu) –**Starting Fall 09, UWF Student Email will move to Google Apps.**

**Course blog:** [2010 link to be provided at start of course](#)

## Lecture Section Explained

The primary goal of this course is to introduce the concepts and theory of GIS. The concepts and theory behind GIS applications are essential to solving all spatial problems. This course and program are not about learning any one piece of software or software training.

Students will:

- Define GIS, and answer questions like:
  1. What is the difference between G.I.Systems and G.I.Science?
  2. How does GIS differ from cartography or other similar disciplines?
- Understand the history of GIS and how it has developed into what we have today.
- Understand the role of differing map projections and coordinate systems and learn why they are so important before analyzing GIS data.
- Distinguish between different types of data and measurement principles that are important before analyzing GIS data.
- Be introduced to the raster data model including usage, compression, and storage.
- Be introduced to the vector data model including usage, compression, and storage.
- Discuss the role of GIS in the wider decision-making / management process.

## Lab Section Explained

A secondary goal of this course is to become familiar with GIS software to assist in future classes such as Applications in GIS, GIS Programming, and Independent Study. We do use substantial ArcGIS in this course but the goal of the lab section is to introduce students to the software before the more challenging analysis courses such as Applications in GIS.

Students will:

- Become familiar with common ArcGIS 9.X software tools.
- Learn how to utilize ArcGIS Help.
- Begin simple data processing tasks and map creation.
- Complete common transformation of the differing data models.
- Utilize Geographic Information Systems for spatial analysis.
- Create, edit, and transform spatial data.

**Responsibilities of Online Learners:** As an online learner, you will be responsible for determining the pace and schedule of your work. You can complete the readings and activities at any times that are convenient to you as long as they are submitted before the assignment deadline (late work is not accepted). You must also take the online quizzes at the specified times.

Although you might be completing your work hundreds of miles from the University of West Florida, you should expect to have frequent contact with your instructor and classmates via e-mail, blog and the online discussion boards. All of your assignments will be submitted using

these tools. You can also use the online discussion board to ask questions, offer comments, and obtain advice from both your instructor and your classmates.

**Your Study Schedule:** If you are coming into this course thinking that online study is a way to "click your way to three credits" then you will be in for a rude awakening. Be prepared to spend a significant amount of time completing this course. Students in previous sessions of this course reported spending between 2-6 hours on the typical weekly lesson.

When you take an on-campus course, you spend about 45 hours in the classroom over an entire semester. In addition, you should/would spend an even larger amount of time reading, going to the library, completing homework, writing, and studying for tests. Most students who have completed this online course report that they spent more time doing the work than they would have expected to spend in an on-campus course. The key to success is self-motivation and perseverance. Set some special work hours every week and stick to them. Learning at home requires much greater dedication than learning on-campus. This course allows you great flexibility as long as you meet the inflexible deadlines. You can begin working as soon as the first lesson is posted. Each week you must do enough work to complete one lesson. The amount of time needed to complete a lesson will vary depending upon the length of the lesson, your reading speed, and your writing ability.

**Grading / Evaluation:**

- Orientation 5%
- Midterm 15%
- Final Exam 15%
- Lecture Exercises 20%
- Class Participation 10%
- Lab Exercises 35%

Grading Scale		
A	4.0	94-100%
A-	3.7	90-93%
B+	3.3	87-89%
B	3.0	83-86%
B-	2.7	80-82%
C+	2.3	77-79%
C	2.0	73-76%
C-	1.7	70-72%
D+	1.3	67-69%
D	1.0	60-66%
F	0.0	0-59%

**Module/Lesson Availability and Due Dates:** All lessons will be posted one week prior to the due date and you may begin working on a lesson as soon as it is posted. A list of the modules, due dates and quizzes are shown in the Course Assignment Schedule document on the course website. [–Provided at start of course.](#)

Please Note: Because students in this course are from multiple time zones it is impossible to honor the time table of each different zone. The schedule will apply to the U.S. Central Time zone (Pensacola, FL) regardless of the time zone you live in/work from. It is up to you to figure out the time difference for your specific location. If you plan to be away from your studies at any time or while on vacation, it is your responsibility to work ahead and be certain that you meet the posted deadlines.

**Quiz and Weekly Project Policy:** Each weekly set of readings will include an associated quiz testing mastery of the material. The laboratory exercises or other project deliverables (maps, graphs, write-ups, etc) are to be posted to personal blog or specified eLearning dropbox and graded by hand by instructor and TA.

Quizzes are administered in eLearning course website. The quiz for orientation can be taken any time before the Sunday end date of Module 1. However, starting with Module 2, all quizzes must be completed by **Wednesday** evening (see course assignment schedule for specific dates). To access quizzes, log on to eLearning, select Introduction to GIS course link and then select the Quizzes link. From here, a list of quizzes will appear (past, present, and future). Click on the appropriate quiz and select START. Make sure you are prepared before taking the quiz. Quizzes are timed based on length, so make note before you begin and notice the running clock.

**Tips:** You should take your quizzes on a reliable, freshly restarted computer with only one window open. This will minimize the possibility of computer crashes or freeze-ups during the quiz. After your quiz is complete, you may view results by going to the Quizzes link once again and selecting the appropriate quiz under the "Past Quizzes" section. Your grade will automatically be posted to the Grades link in most instances (hand-grading by your instructor may be necessary at times).

Quiz/Weekly Project problems will be handled in the following ways:

- You forget a quiz or are out-of-town: You can take the make-up quiz on [April, ## TBA](#)
- Your quiz is unsuccessful because of a computer problem or human error: You can take the make-up quiz.
- You exceed the time limit on a quiz: One minute of overtime is not penalized because the clock on the eLearning server starts before the quiz loads on your computer. One point will be deducted from your score for each additional overtime minute.
- Two or more of your quizzes are missed or unsuccessful: You can take a make-up quiz to replace the first quiz score. Other missed or unsuccessful quizzes will receive a score of zero.

**Participation:** The participation component of this class will be assessed through graded discussion posts and overall involvement in the class. There will be at least two occasions where I will assign a graded discussion post. The required post may be a written summary pertaining to additional readings or written results from a weekly project. Posts must be well written using proper grammar, spelling, etc. On at least one occasion during the semester, I will randomly choose one of your graded discussion posts to grade.

**Mid-Term Exam and Final Exam:** Study guides will be provided. Exams will include questions pertaining to reading material and software skills/concepts learned through laboratory

exercises. Exams are administered through eLearning similar to weekly quizzes but will only be available on specific dates with a time limit. Look to the course schedule for specific dates.

**Course Communication Policy:** Your instructors believe that communications about assignments, course policy and content should be available to all students in the course. It would be unfair for her to give advice by email or phone to one student and not to all others in the course. We will place all of these discussions in the open by using the "Helping Each Other" conference. Posting your questions in this conference will be your fastest method of obtaining assistance. Your instructor will read this conference at least once every 48 hours and respond to questions as needed. In many instances one of your classmates will know the answer and respond before your instructor's next visit to the website. This is how things should work and your instructor encourages communications among students. Any questions about course content or course policy that are sent to the instructor will be returned to the sender with instructions to post them in the "Helping Each Other" conference.

**Software / Computer / Internet Access:** This course has an expectation that all students will have access to a web-connected (Broadband/High Speed) computer capable of running Windows 98 (or greater), Internet Explorer (Version 5.0 or greater), and UWF's GIS Virtual Machine (software fee paid-in-full). Students must understand the use of these tools to be successful in this course. You will use Internet Explorer to access the course websites and submit many online assignments. Orientation to this course will introduce how to use these tools, but it is up to you to meet these requirements before enrolling in the course.

**Special Technology Utilized by Students:** This course is totally online. All instructional content and interaction takes place over the WWW. In addition to baseline word processing skills and sending/receiving email with attachments, students will be expected to search the internet and upload / download files. Students many need the following plug-ins to view content outside of e-desktop for GIS:

- Adobe Acrobat Reader: <http://www.adobe.com/products/acrobat/readstep2.html>
- PowerPoint Viewer: <http://microsoft.com/downloads/details.aspx?FamilyId=D1649C22-B51F-4910-93FC-4CF2832D3342&displaylang=en>
- Windows Media Player: <http://www.microsoft.com/windows/windowsmedia/download/>
- QuickTime Player: <http://www.apple.com/quicktime/download/>
- Real Player: <http://forms.real.com/netzip/getrde601.html?h=207.188.7.150&f=windows/RealOnePlayerV2GOLD.exe&p=RealOne+Player&oem=dl&tagtype=ie&type=dl>
- Macromedia Flash Player:  
[http://macromedia.com/shockwave/download/download.cgi?P1\\_Prod\\_Version=ShockwaveFlash](http://macromedia.com/shockwave/download/download.cgi?P1_Prod_Version=ShockwaveFlash)

**Expectations for Academic Conduct/Plagiarism Policy:**

Academic Conduct Policy: ([Web Format](#)) | ([PDF Format](#)) | ([RTF Format](#))

Plagiarism Policy: ([Word Format](#)) | ([PDF Format](#)) | ([RTF Format](#))

Student Handbook: ([PDF Format](#))

**ASSISTANCE:** Students with special needs who require specific examination-related or other course-related accommodations should contact Barbara Fitzpatrick, Director of Disabled Student Services (DSS), [dss@uwf.edu](mailto:dss@uwf.edu), (850) 474-2387. DSS will provide the student with a letter for the instructor that will specify any recommended accommodations. \*I advise students with special needs to contact DSS well before the start courses if at all possible due to the time it takes for requests to be processed.