

**Course Prefix/Number:** GIS4990 and GIS 5990 **Course Title:** GIS Programming

**Course Credit Hours:** 3

**Instructor Name and Contact Information:**

**Undergraduate section:**

- Amber Bloechle, MS.
- email: [abloechle@uwf.edu](mailto:abloechle@uwf.edu)

**Graduate section:**

- Dr. Lakshmi Prayaga
- email: [lprayga@uwf.edu](mailto:lprayga@uwf.edu)

**TA:**

- Matthew "Mateo" Kirkland
- [mwk2@students.uwf.edu](mailto:mwk2@students.uwf.edu)

\*Please see the course home page for office hours.

**Prerequisites or Co-Requisites:** Introduction to GIS Applications in GIS when taken in sequence with the Online GIS Certificate Program.

**Course Description:** This course is an introduction to programming ARC Objects with VB. Students will explore the programming constructs, classes, interfaces and methods of objects which can be used to Program ARC Objects with VB and build customized GIS applications.

**Goals:** Upon completion of the course, students will be able to

1. Use fundamentals of VBA (Iterative structures, Conditional Statements, Arrays)
2. Program with VB Objects (Methods, Interfaces)
3. Know the hierarchical structure of ARC Objects
4. Programming with Interfaces
5. Making tools (Report coordinates, drawing graphics)
6. Programatically add Layers to a map
7. Programatically set layer symbology
8. Controlling feature display
9. Edit tables (add fields, get and set values)

**About this Course:** This course is delivered completely online. You must have consistent access to the Internet.

Learning at a distance may be a very different environment for many of you. You will generally set your own schedules, participate in class activities at your convenience, and work at your own pace. You may spend some additional time online during the first few weeks while you become acclimated to the online class format and you may feel overwhelmed. You should also be prepared to spend approximately 6 - 8 hours per week

online completing lessons, activities, and participating in class discussions. Finally, you may want to incorporate these tips to help you get started:

- **Set yourself a schedule** -- check the course web site early in the class week to see what tasks you'll need to work on for the week.
- Become very familiar with the site and how to use it. It is a tool to help you learn!
- **Team up with your classmates** to discuss class assignments and questions you might have. Check the "Classlist" link ? for biography info and email addresses.
- **Ask questions when you need answers.** If you have problems, contact your instructor ASAP! I will help you come up with a solution!

**Texts: Required texts:**

*Getting to know ArcObjects.* (With CD-ROM) By Robert Burke. ESRI Press.

**Required Materials:** Internet Access (DSL or LAN access recommended)E-mail Account

**Grading / Evaluation:** GIS Programming will use the grading scale specified below. See below for an additional breakdown of the course assignments.

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%

The course grade will be determined as follows:

**Undergraduate Section:**

- Projects - 40 %
- Quizzes - 30%
- Lab/Participation (book exercises) - 30%

**Graduate Section:**

- Projects 40%

Final Assignment will count for 10% of this section.

- Quizzes 20%
- Lab/Participation (book exercises) - 30%

**Program Goals:** This is a required course for completion of a certificate in GIS.

**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. In addition, students may need one or more of the following plug-ins:

- 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.