

GIS CUSTOMIZATION (Spring 2008)
GEO5934-06

Class meets: Monday 2:00-4:30 pm, Room 035 Bellamy
Office hour: Tu 4-6 pm (Zhao) & Th 2-4 pm (Widener) or by appt.

Instructor

Dr. Tingting Zhao, Department of Geography, 304 Bellamy
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Teaching Assistant

Michael Widener, Department of Geography, 203 Bellemy
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Credit Hours: 3

Course Objectives

This course will introduce you to ArcGIS programming with VBA. Class topics include concept of object-oriented programming, VBA programming basics, customization of ArcGIS user interface, and management of layers and GIS datasets. Lecture will also cover model builder and Python script for geoprocessing operations. Students are expected to learn how to build ArcGIS applications with VBA through 1) class lectures, 2) reading and hand-on exercises, and 3) two course projects.

Textbooks and Resources

Required Textbook

Burke, R., 2003, *Getting to Know ArcObjects: Programming ArcGIS with VBA (updated for ArcGIS 9.1 and 9.2)*. ESRI Press.

Recommended Textbook

Chang, K.-T., 2008, *Programming ArcObjects with VBA: A Task-Oriented Approach (2nd Edition)*. CRC

On-line Resources

Help for VBA developers: Customizing ArcGIS Desktop

http://edndoc.esri.com/arcobjects/9.2/CPP_VB6_VBA_VCPP_Doc/COM/VBA/welcome.htm

Documentation for developers using ArcGIS 9.2

<http://edndoc.esri.com/arcobjects/9.2/welcome.htm>

Electronic Materials

Class announcements, resources, and description of course projects will be posted on Blackboard website GIS CUSTOMIZATION (GEO5934-06, Sp08). You are required to submit both projects through the course website.

Course Projects

Each student is required to finish two course projects. Mid-term project focuses on VBA programming. Your code is due in four weeks after the initial distribution of the question.

Delay in submission costs 10-point loss each day. Final project involves building ArcObject applications with VBA. You will be given 8-10 options. Select one question, solve it using VBA code, and report your procedures and results in class presentation. Your code and PowerPoint slides are due by 5 pm on Monday, Apr 21. No delay will be accepted.

Grading

Your grade will be determined based on combined performance of class attendance (20%), mid-term project (30%), and final project (50%).

Course Policies

Attendance is required throughout the semester. Persistent informal talking and any reading or studying of other materials will not be tolerated. All changes to the course schedule made in class are the responsibility of the student. You are responsible for all missed class materials. Office appointments will be made only when there is a clear conflict with the student's course schedule.

Honor Code Statement

The Florida State University Academic Honor Policy outlines the University's expectations for the integrity of students' academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process. Students are responsible for reading the Academic Honor Policy and for living up to their pledge to "be honest and truthful and...[to] strive for personal and institutional integrity at Florida State University" (Academic Honor Policy, <http://www.fsu.edu/~dof/honorpolicy.htm>).

Americans with Disabilities Act

During the first week of class, students needing academic accommodations should: 1) register with and provide documentation to the Student Disability Resource Center; and 2) bring a letter to the instructor from the Student Disability Resource Center, indicating the need for academic accommodations. For more information about services available to FSU students with disabilities, contact

Student Disability Resource Center
97 Woodward Avenue, South
108 Student Services Building
Florida State University
Tallahassee, FL 32306-4167
(850) 644-9566 (voice)
(850) 644-8504 (TDD)
sdrc@admin.fsu.edu

Syllabus Change Policy

This syllabus is subject to change with advance notice. The class schedule on our Blackboard course site gives the most up-to-date listing of our schedule.

Schedule
(subject to change)

Week	Date	Topic	Reading & Exercises
1	Jan 7	Introduction	n/a
2	Jan 14	GIS customization	Chapter 2
3	<i>Martin Luther King Day. No class.</i>		
4	Jan 28	VBA programming fundamental Distribution of mid-term project	Chapter 3, 4
5	Feb 4	Branch and loop	Chapter 5, 7
6	Feb 11	Subroutine, function and debug	Chapter 6, 8
7	Feb 18	Object-oriented programming	Chapter 9-11
8	Feb 25	Executing commands Mid-term project due; distribution of final project	
9	Mar 3	Working with layers	Chapter 14, 15
10	<i>Spring break. No class. Have fun!</i>		
11	Mar 17	Working with features	Chapter 17, 18
12	Mar 24	Data editing	Chapter 20
13	Mar 31	Model builder and Python	n/a
14	Apr 7	Student presentation I	n/a
15	Apr 14	Student presentation II	n/a
16	Final project due by 5 pm on Monday, Apr 21. No delay will be accepted.		