

# University of North Florida Dept of Economics and Geography

## GIS 3043: Introduction to GIS, section 51138

### Summer B 2009 Syllabus

Instructor:	Dr Chris W Baynard
Class time/location:	Mon-Thurs 12:40-2:20, Bldg 42, Room 2115
Office:	Bldg 42, Room 3402
Phone:	620-1243
Email:	<a href="mailto:cbaynard@unf.edu">cbaynard@unf.edu</a>
Office Hours:	Tues & Thurs 10:00-12:00, or by appt
Homepage:	<a href="http://www.unf.edu/~cbaynard">www.unf.edu/~cbaynard</a>
Blackboard:	<a href="http://blackboard.unf.edu">http://blackboard.unf.edu</a>

#### REQUIRED BOOK:

Mastering ArcGIS—by Maribeth Price. 4rd ed. McGraw-Hill. ISBN (978-0-07-352284-5)

#### REQUIRED SUPPLIES:

Portable USB storage device (flash drive)

#### Recommended Book:

[GIS Fundamentals, a First Text](#)—by Paul Bolstad. 3rd ed. Atlas Books. ISBN (978-0-9717647-2-9)

#### Course Outcomes:

This course will introduce the field, tools and techniques of Geographic Information Systems (GIS), a key and widespread methodology for spatial analysis. By studying the fundamentals and completing the lab exercises students will become proficient in the basic elements of GIS.

#### Student Outcomes:

This course addresses the following UNF [Central Student Outcomes of General Education](#):

- I. Skills
  - a. Think critically, reason soundly, and argue effectively
  - b. Demonstrate competence in the use of information technology
  - c. Communicate effectively
- II. Knowledge
  - a. Know the natural and designed (fashioned) world
  - b. Know the social, political and economic world
- III. Values
  - a. Value works of other cultures
  - b. Appreciate individuals and groups that differ from the Self in significant ways in both domestic and international contexts

#### Course Design:

- The course will consist of short lectures at the beginning of class based on the Price texts (and other assignments)—which students should read before coming to class. This will be followed by hands-on lab exercises using the GIS software. We will spend 2 class periods per chapter.
- The LAB exercises follow 9 chapters in Price’s book (Chapters 1-8 and 12). Students will turn in the answers to the lab assignments on the due date.
- Since learning to use and apply GIS techniques takes time, students are expected to study and work on the lab exercises outside of class as well.
- We will use ESRI’s ArcGIS software. A student copy of the software is available for take home. Your instructor will provide more information.
- Students who miss class should contact a classmate and check [Blackboard](#) to find out what material was missed.

**EVALUATION:**

Grading will consist of:

<b>Attendance and Participation</b>	
Students are expected to attend class regularly, read assignments, participate in class discussions and work diligently on lab assignments during the lab time. Announced or unannounced quizzes will count as part of this grade.	20%
<b>Lab Assignments</b>	
Lab Assignments will comprise the bulk of classroom activity and will be checked for completion on the due date. It’s important to read the assigned material in order to understand the concepts and steps you will be completing during the Labs.	40%
<b>Tests</b>	
The 3 tests will include material covered in class (lectures), readings, concepts and skills. Many of the concepts appear in the first half of each assigned chapter in the Price text. You will learn the skills by completing the LAB exercises (Mastering the Skills component) comprising the second half of each assigned chapter. Tests will likely be administered in Blackboard.	40%
<b>Total</b>	<b>100%</b>

- Students who miss an assignment must provide valid written documentation (for illness, emergency—such as a doctor’s note) to reschedule, or a zero will be assigned. Depending on the situation, the instructor may choose to have the missing grade not count, rather than arranging a make-up.
- According to UNF policy, final grades are structured into the following categories:

A 93-100 GPA Grade: 4.0	C+ 77-79 GPA Grade: 2.3
A- 90-92 GPA Grade: 3.7	C 70-76 GPA Grade: 2.0

B+ 87-89  GPA Grade: 3.3	D 60-69  GPA Grade: 1.0
B 83-86  GPA Grade: 3.0	F 59 and below  GPA Grade: 0.0
B- 80-82  GPA Grade: 2.7	

**Classroom Protocol:**

- Students are expected to follow [UNF Code of Conduct](#)—also see Student Handbook.
- Students are expected to turn off cell phones and other electronic equipment (such as MP3 players) prior to entering the classroom.
- Students are expected to pay attention in class and actively participate.
- Any disruptive behavior will be immediately addressed.

**Read This Statement:**

- According to UNF policy, students who will miss the first day of class must notify the Dept of Economics & Geography office (620-2640) in advance. If not they may forfeit their place in that class and that slot may be given to a student on the waiting list.

**COURSE OUTLINE: The instructor reserves the right to make changes based on the needs and pace of the class.**

June Week 1	
<b>Weds, 24th</b>	<ul style="list-style-type: none"> <li>• Introduction to Course</li> <li>• Tanzania Hero Rats</li> <li>• LAB 0: Land Mines</li> <li>• <u>Homework:</u></li> <li>• Read Price: Introduction pp. 1-15.</li> <li>• Read Price: Chapter 1 pp. 17-33.</li> </ul>
<b>Thurs, 25th</b>	<ul style="list-style-type: none"> <li>• Price Intro and Chap 1.</li> <li>• LAB 1 (Price Chapter 1- GIS Data pp. 35-51. Answer questions 1-6 pp. 38-48 and questions 2,4,5,9 p. 51).</li> </ul>

	<ul style="list-style-type: none"> <li>• <u>Homework:</u></li> <li>• <a href="#">Read Bolstad Chapter 1.</a></li> </ul>
<b>June - July Week 2</b>	
<b>Mon, 29th</b>	<ul style="list-style-type: none"> <li>• Continue LAB 1 (Price Chapter 1- GIS Data pp. 35-51. Answer questions 1-6 pp. 38-48 and questions 2,4,5,9 p. 51)</li> <li>• <u>Homework:</u></li> <li>• Finish LAB 1</li> <li>• Read Price: Chapter 2 pp. 63-75.</li> </ul>
<b>Tues, 30th</b>	<ul style="list-style-type: none"> <li>• <b>TURN IN LAB 1.</b></li> <li>• Price Chapter 2.</li> <li>• LAB 2 (Price Chapter 2- Mapping GIS Data pp. 77-93. Answer questions 1-12 pp. 78-90 and questions 1,2,3 p. 93)</li> </ul>
<b>Weds, 1st</b>	<ul style="list-style-type: none"> <li>• Continue LAB 2 (Price Chapter 2- Mapping GIS Data pp. 77-93. Answer questions 1-12 pp. 78-90 and questions 1,2,3 p. 93)</li> <li>• <u>Homework:</u></li> <li>• Finish LAB 2.</li> <li>• Read Price: Chapter 3 pp. 107-119.</li> </ul>
<b>Thurs, 2nd</b>	<ul style="list-style-type: none"> <li>• <b>TURN IN LAB 2.</b></li> <li>• Price Chapter 3.</li> <li>• LAB 3 (Price Chapter 3- Presenting GIS Data pp. 121-135. Answer questions 1-4 pp. 123-130 and print map resulting after Step 47 on p. 133 and print the graph resulting after Step 51 on p. 135).</li> </ul>
<b>July Week 3</b>	
<b>Mon, 6th</b>	<ul style="list-style-type: none"> <li>• Continue LAB 3 (Price Chapter 3- Presenting GIS Data pp. 121-135. Answer questions 1-3 pp. 123-127 and print map resulting after Step 47 on p. 133 and print the graph resulting after Step 51 on p. 135)</li> <li>• <u>Homework:</u></li> <li>• Finish LAB 3.</li> <li>• Read Price: Chapter 4 pp. 153-163.</li> </ul>
<b>Tues, 7th</b>	<ul style="list-style-type: none"> <li>• <b>TURN IN LAB 3.</b></li> <li>• Price Chapter 4.</li> <li>• LAB 4 (Price Chapter 4- Attribute Data pp. 165-178. Answer questions 1-12 pp. 166-176 and questions 1,2,8,9 pp. 177-178 Capture map resulting after step 50 on p. 177—in the section: working with Excel data).</li> </ul>

<b>Weds, 8th</b>	<ul style="list-style-type: none"> <li>Continue LAB 4 (Price Chapter 4- Attribute Data pp. 165-178. Answer questions 1-12 pp. 166-176 and questions 1,2,8,9 pp. 177-178. Capture map resulting after step 50 on p. 177—in the section: working with Excel data).</li> <li><u>Homework:</u></li> <li>Finish LAB 4.</li> <li>Study for Test 1.</li> </ul>
<b>Thurs, 9th</b>	<ul style="list-style-type: none"> <li><b>TURN IN LAB 4.</b></li> <li><b>TEST 1 (Price Chapters 1-4; Bolstad Chapter 1).</b></li> <li><u>Homework:</u></li> <li>Read Price: Price Chapter 5- Queries pp. 191-201.</li> </ul>
<b>July Week 4</b>	
<b>Mon, 13th</b>	<ul style="list-style-type: none"> <li>Price Chapter 5.</li> <li>LAB 5 (Price Chapter 5- Queries pp. 203-213. Answer questions 1-11 pp. 204-211 and question 10 p. 213).</li> </ul>
<b>Tues, 14th</b>	<ul style="list-style-type: none"> <li>Continue LAB 5 (Price Chapter 5- Queries pp. 203-213. Answer questions 1-11 pp. 204-211 and question 10 p. 213).</li> <li><u>Homework:</u></li> <li>Finish LAB 5.</li> <li>Read Price: Chapter 6- Spatial Joins pp. 221-235.</li> </ul>
<b>Weds, 15th</b>	<ul style="list-style-type: none"> <li><b>TURN IN LAB 5.</b></li> <li>Price Chapter 6.</li> <li>LAB 6 (Price Chapter 6- Spatial Joins pp. 236-248. Answer questions 1-11 pp. 238-245 and questions 1,5 p. 248).</li> </ul>
<b>Thurs, 16th</b>	<ul style="list-style-type: none"> <li>Continue LAB 6 (Price Chapter 6- Spatial Joins pp. 236-248. Answer questions 1-11 pp. 238-245 and questions 1,5 p. 248).</li> <li><u>Homework:</u></li> <li>Finish LAB 6.</li> <li>Study for Test 2.</li> </ul>
<b>July Week 5</b>	
<b>Mon, 20th</b>	<ul style="list-style-type: none"> <li><b>TURN IN LAB 6.</b></li> <li><b>TEST 2.</b></li> <li><u>Homework:</u></li> <li>Read Price: Chapter 7- Geoprocessing pp. 251-262.</li> </ul>

<b>Tues, 21st</b>	<ul style="list-style-type: none"> <li>• Price Chapter 7.</li> <li>• LAB 7 (Price Chap 7- Geoprocessing pp. 264-272. Answer questions 1-4 p. 270 and print the model resulting after step 43 on p. 276 and print the resulting map.</li> </ul>
<b>Weds, 22nd</b>	<ul style="list-style-type: none"> <li>• Continue LAB 7 (Price Chap 7- Geoprocessing pp. 264-272. Answer questions 1-4 p. 270 and print the model resulting after step 43 on p. 276 and print the resulting map.</li> <li>• <u>Homework:</u></li> <li>• Finish LAB 7.</li> <li>• Read Price: Chapter 8- Raster Analysis pp. 285-299.</li> </ul>
<b>Thurs, 23rd</b>	<ul style="list-style-type: none"> <li>• <b>TURN IN LAB 7.</b></li> <li>• Price Chapter 8.</li> <li>• LAB 8 (Price Chapter 8- Raster Analysis pp. 301-315. Answer questions 1-8 pp. 303-313 and questions 1,7 p. 315).</li> </ul>
<b>July Week 6</b>	
<b>Mon, 27th</b>	<ul style="list-style-type: none"> <li>• Continue LAB 8 (Price Chapter 8- Raster Analysis pp. 301-315. Answer questions 1-8 pp. 303-313 and questions 1,7 p. 315).</li> <li>• <u>Homework:</u></li> <li>• Finish LAB 8.</li> <li>• Read: Global Positioning System (GPS), TBA.</li> </ul>
<b>Tues, 28th</b>	<ul style="list-style-type: none"> <li>• <b>TURN IN LAB 8.</b></li> <li>• Global Positioning System (GPS).</li> <li>• LAB 9: GPS exercise, part 1.</li> </ul>
<b>Weds, 29th</b>	<ul style="list-style-type: none"> <li>• LAB 9 continued: GPS exercise, part 2.</li> <li>• <u>Homework:</u></li> <li>• Finish LAB 9.</li> <li>• Study for Test 3.</li> </ul>
<b>Thurs, 30th</b>	<ul style="list-style-type: none"> <li>• <b>TURN IN LAB 9.</b></li> <li>• <b>TEST 3.</b></li> </ul>

#### IMPORTANT DATES

<b>Weds June 24th</b>	<ul style="list-style-type: none"> <li>• Classes begin</li> <li>• Late registration begins (Additional \$100 fee)</li> </ul>
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<b>Fri June 26th</b>	<ul style="list-style-type: none"> <li>• State waiver forms due for Summer B</li> </ul>
<b>Tues June 30th</b>	<ul style="list-style-type: none"> <li>• Deadline for paying/pending/deferring fees for Summer B</li> <li>• Deadline to Add/Drop for Summer B</li> </ul>
<b>Weds July 1st</b>	<ul style="list-style-type: none"> <li>• Summer Term financial aid consortium deadline</li> </ul>
<b>Thurs July 2nd</b>	<ul style="list-style-type: none"> <li>• Deadline for withdrawal Summer C (no refund)</li> </ul>
<b>Fri July 3rd</b>	<ul style="list-style-type: none"> <li>• Independence Day Holiday Observed (University Closed)</li> </ul>
<b>Weds July 8th</b>	<ul style="list-style-type: none"> <li>• Fall Registration Time Tickets posted in myWings</li> </ul>
<b>Fri July 10th</b>	<ul style="list-style-type: none"> <li>• Last day to petition to add a class for Summer B</li> </ul>
<b>Weds July 15th</b>	<ul style="list-style-type: none"> <li>• Fall term Housing rent due</li> </ul>
<b>Fri July 17th</b>	<ul style="list-style-type: none"> <li>• Deadline for Withdrawal Summer B (no refund)</li> </ul>
<b>Fri July 24th</b>	<ul style="list-style-type: none"> <li>• Deadline for Fall term Change of Major</li> </ul>
<b>Fri July 31st</b>	<ul style="list-style-type: none"> <li>• Commencement</li> <li>• Last Day of Classes Summer B and C</li> <li>• Fall registration begins by appointment only</li> </ul>

For complete academic calendar click [here](#)