Course Syllabus
BIO119: Introduction to Geospatial Technologies for Environmental Sciences

Spring 2007  Section 0410  Classroom E221
Monday & Wednesday 8:00-9:50 AM
Lab times by arrangement

Stephanie Deitrick  E-mail: stephanie.deitrick@gmail.com
Office Hours: By appointment only
Phone: (602) 285-7100

Text:  Map Use and Analysis, Fourth Edition
John Campbell
ISBN: 0073037486

Supplies: USB Flash Disk to store project data.

COURSE OBJECTIVES

1. Learn how to plan a project:
   a. Consider stakeholders opinions.
   b. Identify sources of valid data.
   c. Consider political implications/ repercussions.
   d. Identify relevant community forums and media that could be used.
   e. Collect, analyze, & present data in map and tabular form.

2. Learn to use maps well
   a. Create timeline of events in cartography.
   b. Read roadmaps, topographic maps, & shaded relief maps.
   c. Identify your location using the geographic grid system.
   d. Use hands-on activity to visualize the difficulties involved in projecting locations
      on a sphere to a flat map sheet.
   e. Determine UTM coordinates for selected map features.
   f. Measure distance and bearing on a map.
   g. Use compass and pace to create maps of classroom and campus.
   h. Determine the enhanced analytical tools available when GIS is added to
      cartography.

3. Learn to interpret imagery of the earth collected by plane and satellite
   a. Determining features from imagery.
   b. Creating thematic layers from imagery.
   c. Evaluating the benefits of images created from each of the electromagnetic
      spectra.

4. Learn to use a GPS unit
   a. To determine coordinates of campus features.
   b. To find hidden treasure on campus.

5. Learn to use NASA’s Satellite Tool Kit

6. Investigate physical and human systems
ASSIGNMENTS

1. **Course Notes and Class Participation**
The concepts and topics covered in this course are vital for an understanding of Geospatial Technologies and the remainder of the courses in this program. The PowerPoint presentations and information contained on the slides are not meant to be all-inclusive of the material covered in the lecture. Note taking is an important part of class participation and is strongly recommended as part of active class participation.

Learning is an active process. I encourage active participation in class, including asking questions and participating in class discussions.

2. **Course Assignments and Lab Work**
Assignments (worksheets, projects and activities) are located in the Student Manuals. There will be several occasions where activities are started or completed during class time; however, most assignments will be completed outside of class. You are responsible for completing all assignments and labs in a timely manner. Lessons assignments and/or labs should be completed within one (1) week of that lesson being covered in class.

For example, if we cover Unit 1, Lesson 2 on Thursday January 19, the associated assignment should be completed by Thursday January 26.

Assignments are to be completed in a professional and neat manner. Poorly written, sloppy or illegible assignments will lose 5 points per assignment. Some general guidelines for assignments include the following:
- Essays should be typed, double spaced, with 12 point font and 1 inch margins.
- Please avoid run on sentences, fragments and misspelled words (use spell check)
- Maps should be presented in a professional manner (appropriate titles, layout, cartographic representation, etc).

These requirements will be discussed further in class throughout the semester.

Assignments that require Geodesy or STK Toolkit software will need to be completed in the lab (classroom). For assignments that are to be completed outside of class, lab times will be available by arrangement or a set schedule will be provided.

The concepts and topics covered in this course are vital for the remainder of the Geospatial Technologies program. If you feel that you are struggling with a concept or in the completion of an assignment, please talk with me before you get behind.

3. **Reading**
Supplemental reading assignments will be given throughout the semester. Most of these will come from the class textbook. Any other readings will be provided by the instructor.
4. **Quizzes**
   Four (4) short quizzes will be given during the semester on topics covered in lectures and supplemental reading. Quizzes will be announced at the beginning of class, the class period before the quiz will be given (for example, if a quiz will be given on Thursday, it will be announced on Tuesday).

5. **Course Portfolio**
   You will be required to keep a loose leaf binder, which will include the following:
   - Completed class assignments, including
     - Completed lab work (such as worksheets or written assignments)
     - Maps
   - Quizzes
   - Class Notes
     - Notes may be kept directly in your course portfolio or separately in a spiral notebook.

Assignments should be completed and placed within your portfolio within one week of the Lesson being conversed in class. If portfolios are collected and an assignment is missing, it is considered late, and five points will be deducted from the assignment grade.

I will collect and review course portfolios several times throughout the semester. I will announce the collection the class before the portfolio will be collected (for example, if I am collecting them on a Tuesday, I will announce this the Thursday before they are due).

You will have the opportunity to correct and resubmit any maps/work contained in your portfolio after they have been reviewed for one week after the portfolios are returned. Corrected work has the possibility to earn back half of the deducted points (for example, if you received 10/20 points for an assignment, and the assignment was returned to you on a Tuesday, you could correct any errors, resubmit the assignment by the following Tuesday and potentially receive an additional five (5) points for the corrected work).

6. **Final Projects and Final Presentation**
   Students will orally present their final project to the class on the last day of class. The presentation will be approximately 10-15 minutes in length with five minutes for questions after the presentation. The final projects will be presented using PowerPoint. The final project is worth 100 points.

7. **Extra Credit**
   Opportunities to complete extra credit assignments will be available throughout the course. Assignments will be graded using the same standards as regular assignment. Extra credit assignments will not take the place of regular coursework, and will only be accepted if required assignments have been completed.
GRADING

There are 1,000 total points available for this course

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Portfolio</td>
<td>700</td>
</tr>
<tr>
<td>Quizzes (4 @ 25 points each)</td>
<td>100</td>
</tr>
<tr>
<td>Final Presentation</td>
<td>100</td>
</tr>
<tr>
<td>Class Participation/Course Notes</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total Points</strong></td>
<td><strong>1,000</strong></td>
</tr>
</tbody>
</table>

EVALUATION

1. **Grading Information**
   a. **Four Quizzes** will be given worth a total of 100 points. Each quiz will include topics covered in lectures and readings and will consist of five to 10 (5 to 10) questions. Questions may include matching, multiple choice, short definitions, fill in the blank or short answer. All information need to successfully answer the questions will be discussed in lectures or covered in readings.

   b. **Course Portfolio** will be kept during the course for a total of 700 points (35 assignments @ 20 points each). The portfolio will be collected and assignments graded throughout the semester. You are responsible for completing all assignments and labs in a timely manner, as well as taking notes during class. My recommended timetable is that a lessons assignments and/or labs should be completed within one (1) week of that lesson being covered in class. Assignments will be graded on completeness, correctness of responses, professional presentation (writing or map layout and presentation).

   c. **Class Participation and Course Notes** will be evaluated throughout the semester and are worth 100 points. Active class participation includes taking notes during lectures and actively contributing to class discussions (including questions or ideas). Notebooks will be collected and reviewed periodically throughout the semester.

   d. **Final Projects** are worth 100 points. The final project will result in a written report, with appropriate maps, an oral presentation and the creation of a PowerPoint presentation. The final reports occur on the last day of class.

2. **Late Assignments.** As previously stated, assignments should be completed and placed within your portfolio within one (1) week of the Lesson being conversed in class. If portfolios are collected and an assignment is missing, it is considered late. You will have the opportunity to complete the assignment and turn it in separate from your portfolio for evaluation, but five points will be deducted for each day the assignment is late. After four days, the assignment is worth zero points.

3. **There are no make-ups for missed quizzes.**
4. **Final Grades.** The grade for the semester is determined by adding together all individual scores and calculating one final percent score:
   - **A** = 900 -1,000 points (90 through 100%)
   - **B** = 800-899 points (80 through 89%)
   - **C** = 700-799 points (70 through 79%)
   - **D** = 600-699 points (60 through 69%)
   - **F** = 599 points or lower (Less than 60%)

**CLASS POLICIES**

1. Students must be registered for the course. Anyone who is not registered cannot attend.

2. Absences and Tardiness:
   a. Attendance is required and will be recorded.
   b. Unexcused absences, including social and family events, in excess of three (3) for will result in your withdrawal from the course.
   c. Excused absences are defined as the following: illness/accident (student), illness/accident/death (family member), jury/military duty, athletes participating in College sponsored athletic events. Verification of the reason for the absence is required on or before the day you will return to class.
   d. Call me or e-mail me prior to the absence or as soon as possible after the absence.
   e. Arriving late without a valid excuse is unacceptable since important instructions, lecture and/or quizzes are typically given at the beginning of each session. Incidents of unexcused tardiness accumulate as unexcused absences (2 tardies = 1 absence).
   f. If you anticipate a change in attendance due to personal or work changes you must meet with me as soon as possible.

3. Student Initiated Withdrawals:
   a. If you wish to be withdrawn from class, for whatever reason, you must start withdrawal proceedings by notifying your instructor, do not just stop attending class and expect your instructor to withdraw you from class.
   b. Some important dates:
      - **Friday, March 2**: Last day for withdrawal without instructor signature
      - **Monday, April 23**: Last day for withdrawal with instructor signature

4. Student Services:
   a. If you are aware of any physical or non-physical disability that may affect your performance in class, please inform your instructor during the first week of class. Phoenix College's Disability Support Services can provide for some of the special needs of disabled students (See the Phoenix College Student Handbook pages A-13/A-14.). Disability Support Services include interpreting for the deaf, note taking, reading, testing accommodations, and accommodations for the learning disabled with documentation. Special Services is located in the Learning Center Building Phone: 602-285-7477.
b. Phoenix College's Learning Center provides free tutoring, educational materials, computer-assisted instruction, and student development workshops. The Learning Center is located in the Learning Center Building.

c. Phoenix College’s Math + Science Center also provide free tutoring, educational materials, computer-assisted instruction, and student development workshops. The Math + Science Center is located on the second floor of the Fanin Library Building.

5. Academic Dishonesty:
   a. Academic dishonesty includes cheating and plagiarism. A First offense will be given a score of 0 for the assignment. A Second offense will result in failure of the course. All incidents will be reported to the Biology Department Chairperson and to the Dean of Instruction. (See the Phoenix College Student Handbook pages C-7/C-8.) For your protection, please avoid even the appearance of academic dishonesty.
   b. For example, there are several assignments in the course where you will be asked to answer questions based on information found in supplemental materials or websites. When answering these questions, you should paraphrase (put into your own words) the information contained in the text, handouts, website or other source—you should not copy word for word directly onto your paper. This is considered plagiarism and will result in a 0 for the assignment.

6. Disruptive Behavior:
   a. Major disruptive behavior in class will not be tolerated and will be dealt with in accordance with college policy. (See the Phoenix College Student Handbook pages C-23/C-28.) Major disruptive behavior includes harassment of other students or instructor and inappropriate or unsafe activities with respect to other students, instructors, equipment or supplies.
   b. Minor disruptive behavior will not be tolerated and will be dealt with in accordance with college policy. Minor disruptive behavior includes excessive talking, excessive late arrivals, excessive early departures; use of pagers, cell phones, head sets and MP3 devices; and working on non-course activities during class time, including surfing the internet.

7. Respect for Diversity:
   a. Diversity encompasses: age, life experiences, profession, ethnicity, region, nation, lifestyle, social class, learning style, philosophy of life, sexual orientation, religion, personality, mental and physical challenges, customs, values, and gender. In this class, anyone with a different perspective or a different angle on reality will be respected. I am committed to fostering a respect for each other’s right to think, feel or act in their own manner.
RESPONSIBILITIES

You are responsible for all information contained within this syllabus. Please read it thoroughly and let me know if you have any questions or do not understand a requirement. I will be happy to review any requirements or assignments with you.

A student information sheet is attached to this syllabus. Completion of this information sheet indicates that you have received and read the course syllabus.

Note: All provisions in this syllabus are subject to revision by the instructor, such revisions will be announced in class and all students will be responsible for such revisions.
STUDENT INFORMATION

Name: 

Major: 

Phone: 

Email: 

Experience with GIS or remote sensing: 

What do you hope to learn from this class?

Much communication in this class may occur by email, including information about assignments, interesting events that you might want to attend or internship opportunities, and other communications. If you do not have an email address, please let me know, and we can set up a free email account that you can use for this course.

NOTE: Completion of this information sheet indicates that you have received and read the course syllabus. If you have not received the course syllabus, please ask for a copy before you complete and return this form.