

TOWSON UNIVERSITY  
Department of Geography and Environmental Planning  
Geography 673

Course Outline

Instructor: Dr. John Morgan

I. Course Description

GEOG 673 -- Special Topics in Geography and Environmental Planning (3 credit hours). An in-depth, seminar-format discussion of selected environmental applications of geographic information systems. Students will develop an applications project or research paper on a topic related to the seminar. Prerequisites: an introductory course on geographic information systems or related employment experience.

II. Course Objectives

- A. To improve student understanding of the nature and use of geographic information systems (GIS).
- B. To introduce the student to the growing base of literature (textbooks, journal articles, and conference proceedings) on geographic information systems.
- C. To encourage students to apply state-of-the-art (commercial) geographic information systems software for solving environmental problems.
- D. To explore how GIS is currently being used by government agencies and businesses to solve environmental problems..

III. Course Content

This seminar will include, but will not necessarily be limited to, discussion of the following environmental applications of GIS topics during the Summer 2009 semester:

- A. Agriculture
- B. Air pollution
- C. Biological diversity and habitats
- D. Coastal applications
- E. Forestry (including urban forestry)
- F. Water resources (including water pollution)
- G. Wildlife management

IV. Course Requirements

- A. Assigned readings from articles, faculty reserve materials, and class handouts  
All students will be required to read several articles each week related to the seminar topic. In addition, each student will be required to prepare abstracts for, as well as discuss in class, two additional articles during the semester. A photocopy of the abstract must be made available for each student in the class (as well as two copies for me). Abstracts are due at the time of the class presentation of the article.
- B. Applications project/research paper  
Students are required to complete either an applications project or a research paper.

To the extent possible, students are encouraged to use GIS software to complete an applications project. Specifications for the applications project/research paper, which will include written and oral reports, will be provided during the semester.

C. Class attendance and participation

Class attendance is required of all students. Students are expected to attend all classes during the semester, and to actively participate in all aspects of the seminar.

V. Course Evaluation

A. Applications project/research paper (80% of course grade)

The applications project/research paper will be assigned a letter grade based on both the quality of the written proposal, written paper, and the oral presentation. The equivalent numerical grades for the applications project/research paper letter grades are as follows: A+ = 100; A = 95; A-/B+ = 90; B = 85; B-/C+ = 80; C = 75; C-/D+ = 70; D = 65; D-/F+ = 60; F = 55. Points (10) will be deducted for each day an applications project is submitted for grading after the due date.

B. Class participation (20% of course grade)

Your class participation grade will be based on my assessment of your level of participation in the seminar (including your article presentations). Like the applications project/research paper, your class participation will be assigned a letter grade. Class participation grades will be recorded each week. A class participation grade of 0 will be recorded for students who do not attend a seminar. Separate grades for article presentations will also be recorded.

C. Grading procedure

Your grade for the course will be determined from your performance on the applications project/research paper and your class participation. Letter grades will be determined according to the following schedule: A = 90 - 100%; B = 80 - 89%; C = 70 - 79%; and F = 0 - 59%.

VI. Office Hours

M, 1:00-6:00 PM. Other times by appointment. My office is Linthicum Hall Room 030. My office telephone number is 410-704-2964, the office fax is 410-704-4702, my email address is [jmorgan@towson.edu](mailto:jmorgan@towson.edu), and the URL of my personal Web page is <http://pages.towson.edu/morgan>. Students who have any questions regarding the lectures, reading assignments, laboratory projects, and applications project, or who have any other questions or problems related to the course, are encouraged to see me during my office hours, or to call or email me for an appointment.

VII. Textbooks

There are no required textbooks for this course. The following is a recommended textbook:

Scally, R. 2006. *GIS for Environmental Management*. Redlands, California: ESRI Press.