ENVS 6189 GIS APPLICATIONS IN PLANNING AND RESOURCE MANAGEMENT

This course provides students with an opportunity to gain first-hand experience in the application of geographical information systems (GIS) to environmental problems with particular reference to planning and resource management. Students will become familiar with the strengths and limitations of this rapidly developing approach to the analysis of spatial data.

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Objectives:

A conceptual overview of the Geographic Information Systems, supported by in-depth reading materials and samples of current applications in planning and resource management is in this course. Students develop a working knowledge and theoretical appreciation of the application of GIS and intersecting technologies. The theoretical and practical components of this course will prepare students to: continue to more advanced levels of study in the field of GIS, integrate this emerging discipline into their graduate research, or compete on employment opportunities requiring management level understandings of GIS and related technologies.

Outline:

The course is scheduled to meet 1.5 hours a week in a seminar setting and 1.5 hours in a lab setting. The topics covered in the course include: an introduction to GIS and Geomatics; cartography and maps literacy, the nature of spatial data, measures of data quality and error; basic modeling; spatial analyses; and, examples of GIS applications in planning and resource management. Case studies, lecture, reading and five (5) computer laboratory assignments are used to illustrate theoretical concepts in practice.

Evaluation:

Standard enrollment and successful completion of ENVS 6189 yields three (3) course credits. Grades and comments will be assigned based on the student’s understanding of the course material, work performed in the computer labs, and group interaction. Course structure may vary to accommodate the interests of the students. Evaluation of performance is dependent on students submitting products of good quality and meeting all submission deadlines.

The final grade and comments for the course will be based on the following work:
Lab Assignments (5): 75%
Mid-Term Test 20%
Participation: 5%

Grade assignment conforms to the description as provided in the “FES Regulations” and the Faculty of Graduate Studies (FGS) for Non- FES students.

Requirements:

Students will be responsible for securing the following items prior to the first lab session:
• A York University print card
• A GIS_PC computer account
• A functioning e-mail account to submit assignments.
Prerequisites and Limitations:

Students must have a working knowledge of computer operating systems (e.g., Win9X/NT/XP) and the ability to use descriptive statistics, or have the permission of the instructor.

Relation to Other Courses:

This course is the prerequisite for ENVS 7189.

Required Reading:


*Textbooks are on reserve at the Scott Library Reserve Desk (2 hr reserve).

Students should review the document "Academic Computing at FES 02/03" York University Faculty of Environmental Studies.

Suggested Supplementary Reading:


PLEASE NOTE: Students who feel that there are extenuating circumstances which may interfere with the successful completion of the course requirements are encouraged to discuss the matter with the Course Director as soon as possible. Students with physical, learning or psychiatric disabilities who require reasonable accommodations in teaching style or evaluation methods should discuss this with the Course Director early in the term so that appropriate arrangements can be made.

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Copies of this and other FES Course Outlines may be obtained in Room 355 Leonard G. Lumbers Building.