EES1109 – Advanced Techniques in Geographic Information Systems
Mondays 5-9p
Mike Doughty
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Office Hours: Thursday 12-2p, EV344

COURSE DESCRIPTION

This course covers an advanced set of techniques and applications of GIS, including a substantial practical component. Technical issues (including data format and conversion, geo-referencing, spatial indexing and terrain analysis), application/spatial modeling (including watershed analysis, land use classification, soil erosion modeling, etc) as well as visualization and incorporation of spatial data and analysis into decision support systems will be examined. Underlying programming techniques will be reviewed and extended on a student-project basis.

COURSE OBJECTIVES

Students will be provided the information to allow them to perform a variety of tasks, within a spatial framework, dealing with a number of GIS topics through a series of assignments as outlined in the SCHEDULE, below. Students will be introduced to a variety of software packages (e.g. ArcGIS, Manifold GIS and GRASS GIS; others as required) and should be able to have a working familiarity with them at the conclusion of the course.

SCHEDULE

Assignment 1
• Start Date: 2018-01-08
• End Date: 2018-02-06

Assignment 2
• Start Date: 2018-02-06
• End Date: 2018-03-05

Assignment 3
• Start Date: 2018-03-05
• End Date: 2018-04-06

EVALUATION

Each Assignment (as specified in the SCHEDULE, above) is worth 1/3 of the total course mark.

A review paper or alternate project may be a possible substitute for one (1) assignment at any point in the term. A fully referenced paper submitted in digital form on a GIS topic (to be discussed with the instructor). Multiple sources are to be used with both tables and figures (as appropriate) included. 10 to 25 pages in length.

Any alternate paper/project is to evaluated on a student-by-student basis and is available only at the instructor’s discretion.
Evaluation will be carried out in accordance with the Graduate Grading and Evaluation Practices Policy (and how that policy is interpreted and applied in this Dept.)

EMERGENCY PLANNING

Students are advised to consult the university’s preparedness site (http://www.preparedness.utoronto.ca) for information and regular updates regarding procedures relating to emergency planning.

ACCESSIBILITY NEEDS

The University of Toronto is committed to accessibility. If you require accommodations for a disability, or have any accessibility concerns about the course, the classroom or course materials, please contact The UTSC Accessibility Services as soon as possible: http://www.utsc.utoronto.ca/~ability/
We also suggest you also refer to the following University of Toronto Scarborough Library link: http://utsc.library.utoronto.ca/services-persons-disabilities

PLAGIARISM

University of Toronto code of Behaviour on Academic Matters states that “it shall be an offence for a student knowingly: to represent as one’s own any idea or expression of an idea or work of another in any academic examination or term test or in connection with any other form of academic work, i.e., to commit plagiarism.”

For accepted methods of standard documentation formats, including electronic citation of internet sources please see the UofT writing website at: http://www.writing.utoronto.ca/advice/using-sources/documentation

The full Code of Behaviour regulations could be found from consulting http://www.sgs.utoronto.ca/facultyandstaff/Pages/Academic-Integrity.aspx

WRITING AND ENGLISH LANGUAGE

As well as the faculty writing support, please see English Language and writing support at University of Toronto: http://www.sgs.utoronto.ca/currentstudents/Pages/English-Language-and-Writing-Support.aspx
Students have commented that they found the latter address extremely helpful for writing term papers.

The following are also useful:


LATE WORK

Late assignments are assigned a penalty of 10% per day.

READINGS

As posted for the specific assignment.

FINAL EXAM DATE (IF APPLICABLE)

N/A