EEOS 265 - Computer Applications in Geography
Getting Started with Geographic Information Systems
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Getting Started in Geographic Information Systems

Course Description:

This course is an introduction to geo-spatial technologies, with an emphasis on computer-related applications. The course provides students with a brief introduction to the sub-fields of geo-spatial technologies, which include geographic information systems (GIS), global positioning systems (GPS), remote sensing and computer-generated cartography. All topics discussed in lecture are reinforced through computer lab exercises. This course is an excellent introduction to the more advanced geo-spatial technology courses offered through the department.
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• **Topics** that will be covered include:
  • Coordinate systems & map projections
  • Geographic data structures
  • The global positioning system (GPS)
  • Remote sensing
  • Map production and design
  • Analysis of geographic data (including spatial analysis)
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• Students will be provided with hands-on experience, working with the ArcGIS desktop geographic information system (GIS). The goals are to help students:

  1. Establish a geographic perspective of social and physical phenomena in the real world
  2. Understand the key issues in dealing with geographic data
  3. Learn how to use geographic data in a GIS
Course Introduction – Where and When

• Lectures:
  • S-2-062
  • Thursdays from 6:00 - 8:30 PM

• Labs:
  • S-3-020
  • Tuesdays from 6:00 - 8:00 PM
GIS’s Focus Is On Where

• On the previous slide, I specified where using the names of buildings and room numbers.
• Geographers often approach the concept of where using another representation of location — a map:

http://www.umb.edu/parking_transport/images/campus_map.jpg
But Where By Itself is Not So Useful

- **Where** – S-3-020
- **When** – Tuesdays from 6:00 - 8:00 PM
- **What** – EEOS 265 Labs
- **Who** – Students enrolled in the course (you)
- **Who Else** – The instructor teaching the course
  - **Name** – David Tenenbaum
  - **Position** - Assistant Professor
  - **Department** - Environmental, Earth and Ocean Sciences
David Tenenbaum

• Hon. B.Sc. at the University of Toronto
  – Majors: Physical and Environmental Geography & Environment in Society

• M.Sc. at the University of Toronto
  – Thesis: RHESSys-ArcView Integrated Modelling Environment

• Ph.D. at the University of North Carolina at Chapel Hill
  – Dissertation: Surface Moisture Patterns in Urbanizing Landscapes

• Canadian Government Lab Visiting Fellow at the Water & Climate Impacts Research Centre
  – Research: NAESI - In-Stream Flow Needs
How to reach me

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- **Course Web Page:**
  - [http://alpha.es.umb.edu/~david.tenenbaum/eeos265](http://alpha.es.umb.edu/~david.tenenbaum/eeos265)

- **Read** the background material from the text

- **Complete** the online quiz on the textbook website

- **Download/read** sections of course material online
  - At least skim these before class so you are familiar with the material we will cover

- Lectures will follow (though not exactly) the **topics / structure** outlined in syllabus quite closely

- **Prentice-Hall Textbook Website**
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• Labs:
  – Tuesdays 6:00 - 8:00 PM S-3-020

• Lab Exercises and Quizzes:
  – available online through the Prentice-Hall website
  – These follow the text’s chapter structure, and at the end of the course we will have 2 further integrative assignments where you will integrate what you have learned
  – Labs due 1 week later at the beginning of the lab session
  – Submit quizzes anytime, ideally before the lecture

• lateness: -10% of total mark per day
  – approach your TA for extenuating circumstances
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Grading:

Online quizzes 10%
Lab assignments 40%
Mid-term (Oct. 21) 20%
Final exam (TBA) 30%