SIE 509 – PRINCIPLES OF GEOGRAPHIC INFORMATION SYSTEMS (GIS)
Fall 2014

INSTRUCTOR:
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OFFICE HOURS:  Tuesday & Thursday 7:30 – 9:00. Other times by appointment

CLASS MEETINGS:  Tuesday & Thursday 9:30-10:45, 136 Boardman Hall

ISBN:  978-0-9717647-3-6. This is available from the University Bookstore, but it is less expensive online. It can be purchased from Atlas Books (www.atlasbooks.com) for about $39 plus shipping.

SOFTWARE:  Distance students need to purchase ArcGIS for Home Use
http://www.esri.com/arcgis-for-home/index.html. The price is $100 for a 12-month license. On campus students have access to the program in the SIE lab, but may also choose to purchase a copy.

Additional readings may be assigned.

ONLINE COURSE MATERIALS:
• Course Materials: http://umaine.edu/computingcoursesonline
• Live Broadcast: Available at http://meet.maine.edu/sie509/. You will not be able to access the site until the class is in session.
• Online students may view and participate in the live sessions but are not required to do so.
• Archived Broadcasts: Links to the class broadcasts are made available at the end of each day through the Lectures link for this course.

COURSE OBJECTIVES:
This is an introductory course designed to provide the student with:
• An overview of the development and basic principles of geographic information systems.
• Practical experience in the use of ArcGIS 10.x (one of the most popular commercial GIS packages).
• An understanding of the development of a GIS project.
TOPICS:
- Introduction to GIS
- Spatial Data
- Data Modeling
- Database Management
- Data Input and Editing
- Data Analysis
- Analytical Modeling
- Data Quality Issues
- GIS Project Development will be integrated throughout the semester

ASSIGNMENTS:
Lab Exercises
There will be 8-10 laboratory exercises, which are designed to supplement the lecture material. The exercise instructions will be distributed in lab, and unless otherwise stated, the lab report will be due one week from the date of distribution. All reports should be word-processed. All map layouts should have a title, a legend, a scale bar and north arrow, the name of the creator, the lab number, and due date.

Please submit digital reports to my First Class address (constance.holden@umit.maine.edu).

Lab exercises have differing point values (25-50 Points), depending upon the length and difficulty of the exercise. Lab exercises will be graded on accuracy, completeness, promptness and tidiness. All written responses should be typed, and all pages stapled together with the layout on the bottom. Exercises more than two weeks late will NOT be accepted unless previous arrangements have been made.

All students have access to this software in the SIE Lab in room 138 Boardman Hall. To get the access code for the lab, you must see Karen Kidder in room 348 Boardman Hall. If you do not already have a userid and password for the lab, one will be assigned during the first or second week of class.

Project:
The project should be implemented using GIS software. The project can be related to your research, or be on another topic of interest.

- Sept. 25 - Project Proposal (10 Pts) – A description of your project.
- Oct. 16 - Progress report (20 Pts) – A list of data files needed and their source.
- Nov. 13 – Progress report (20 Pts) – A description of what you have accomplished to date includes your data dictionary.
- Dec. 11 – Presentations begin, continuing into the final exam period (20 Pts).
  Distance students need to be able to come to class on the day of their presentation, or have the equipment necessary to record their presentation.
• Dec. 18 – Final report and CD with completed project due by noon. (30 Pts)

EXAMS:
There are two take home exams, due:
  Exam 1 - Oct. 23rd
  Exam 2 – Dec. 4th

GRADING:
Lab exercises  25%
Exams (2)  25% each
Project  25%
Plus and minus grading will be used.

REQUESTS FOR ACCOMODATIONS:
If you wish to request an accommodation for a disability, please contact Ann Smith, Coordinator of Services for Students with Disabilities (Onward Building, 1-2319) as early as possible in the semester.

Best wishes for a pleasant and successful semester!