Geography 463: Geographic Information Systems Workshop
Syllabus - Spring 2004
http://courses.washington.edu/geog463

Instructors
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Meetings
Lecture F 1:00-2:20PM, CMU 120
Lab Section AA MW 2:30 - 4:20 PM, Smith 401
Lab Section AB TTH, 12:30 - 2:20 PM, Smith 401

Course Description
Geography 463 is designed as a senior capstone course or first-year graduate studio. The course is designed to be an in-depth experience in group work developing a GIS and conducting geospatial analysis as part of a real-world project or geography research. Projects are expected to draw on material from two or more concentrations within the Geography Department (i.e., access, citizenship, globalization, movement, representation, scale, sustainability). Students are to select a group name that reflects the nature of the project topic they are pursuing as a group – make it professional sounding.

Lecture topics address project management principles to be applied throughout the quarter. Students will make use of GIS concepts and software training as provided in previous GIS courses, as well as learn new ones during project completion. Lab assignments are structured so that workgroups of 3-5 students develop a single project throughout the quarter. Seven work stages will be used throughout the course to guide groups in managing each group’s time and effort.

Stage 1) Needs Assessment: In consultation with instructors, group members determine and clarify a topic of interest in terms of client needs or research question(s). Needs assessment must consider the broader decision situation or problem context.

Stage 2) System Requirements: Requirements enumerate data, software, hardware and personnel that will be used to address identified needs and objectives.

Stage 3) Data Acquisition: Groups acquire of digital data from department/university data resources and/or other organizations, or the manual conversion of data. As part of this process, groups evaluate the fitness for use (quality) of potential data.

Stage 4) Data Analysis and Interpretation: Groups conduct geospatial modeling and/or analysis using any conveniently available and suitable software package. Analysis results are interpreted with respect to project objectives or research question(s).

Stage 5) Project Evaluation: Groups design and possibly implement an approach to evaluating whether the work product(s) meet project objectives or client needs.
Stage 6) Project Presentation: Groups present their work and findings to the class and project clients. Presentations are a chance to share ideas and solicit feedback on findings and interpretations.

Stage 7) Final Product: Groups compile a final report based on the milestones of the six previous work stages. Work product(s) (e.g., data, maps, tables, charts, or protocols) are submitted to instructors and project clients.

Prerequisites

Geography 463 is designed to be an in-depth experience in the use of a GIS. Geography 463 is not an introduction to GIS or a particular software package. Students must have taken Geography 460 or Geography 461 or Urban Design and Planning 422, or equivalent GIS experience (with permission from the instructor). Students may use the software packages ArcView GIS 3.2 and/or ArcGIS 8.2 – as these are widely available on department computers. Other software can be used to address project information and analysis needs as deemed appropriate. (Intergraph’s GeoMedia is available on some department computers.)

Assignments

Graded assignments correspond to seven project milestones. A total of 400 points are possible.

<table>
<thead>
<tr>
<th>Milestone</th>
<th>Points</th>
<th>Due</th>
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<tbody>
<tr>
<td>1. Project Proposal</td>
<td>Required, no points</td>
<td>April 7 (AA) April 8 (AB)</td>
</tr>
<tr>
<td>2. Needs Assessment Report</td>
<td>60</td>
<td>April 23</td>
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<tr>
<td>3. System Requirements Report</td>
<td>60</td>
<td>May 7</td>
</tr>
<tr>
<td>4. Data Acquisition Report</td>
<td>40</td>
<td>May 14</td>
</tr>
<tr>
<td>5. Data Analysis Report</td>
<td>40</td>
<td>May 21</td>
</tr>
<tr>
<td>6. Project Presentation</td>
<td>60</td>
<td>May 31 – June 4</td>
</tr>
<tr>
<td>7. Final Product</td>
<td>120</td>
<td>June 7 5PM</td>
</tr>
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</table>

Each student is required to maintain a project logbook (10 total points). It should be handed in during section of the 5th (5 points) and 8th (5 points) weeks of the quarter.

Each group is required to design and maintain a project website describing the project activities and progress. The URL should be submitted (emailed) to instructors and project clients by the end of the 4th and 9th weeks.

Readings as assigned are available on “electronic reserve” reading, to be found through https://eres.lib.washington.edu/