UNLV School of Architecture  
AAL 465/665 – GIS Planning Methods  
Fall 2008

Room: ARC 172  
Time: Thursdays 7:00 – 9:45 pm  
Credits: 3  
Instructor: Kalvan Hone  
Website: http://faculty.unlv.edu/khone  
Email: kalvan.hone@unlv.edu  
Phone: (702) 267-2528 M-Th 8am-5pm

Required Text  
http://webhelp.esri.com/arcgisdesktop/9.3 (online)

Required Reading  
Websites and internet sources for data will be utilized and announced throughout the course.

Course Description  
This is a lecture, discussion group and hands-on course in which you will learn:

- The basics of Geographic Information Systems (GIS), operation, theory, and implementation.
- Industry trends in the application of GIS to landscape architecture.
- To apply GIS theory and analytical tools to a range of environmental and planning topics.
- To understand GIS data, and mapping sources and uses.
- How to retrieve, manipulate, store and describe data using ArcGIS software.
- Environmental analysis and planning methods utilizing ArcGIS to develop data overlays.
- To create/design data overlays.
- To design, implement and document an applied GIS-based planning project.

This is a 3 credit class (3 hours per week); lab work will be done during these hours, although commonly students will need additional time outside of class to complete their assignments. A typical class will consist of lecture followed by lab/project work, with a scheduled break.

Objectives
GIS Planning Methods is an introduction to the application of GIS for regional, urban and site planning. It will cover the theoretical framework of GIS function, real-world examples of GIS application, and the use of ArcGIS software for GIS analysis. The course will focus on geographic analysis rather than the creation of GIS databases, although the basics of data design and format will be investigated. The class will be divided into two major components: theory/application lecture and discussion, and ArcGIS laboratory exercises and analysis. The goal of the course is to gain a familiarity and understanding of GIS applications for planning purposes, and to become familiar enough with ArcGIS to perform a variety of spatial analyses commonly utilized in planning practice.

Grading

- The following criteria will be used in determining your grade:
- Successful completion of in-class exercises and quizzes.
- Clarity, insightfulness and completeness of your thinking as reflected in your written, oral, and graphic work. This includes thoroughness of your research, and resolution of GIS problems in exercises, exams and your projects.
- Application of research results in your design work.
- Technical quality of your work (e.g., appropriate use of data sets and analytical tools for solving assigned problems; grammar, spelling, and logic in your writing; accurate citations).
- Attendance and participation in class.

Grades will be broken down as follows:
- In-class participation  10%
- Exercises    25%
- Midterm    15%
- Project    25%
- Final Exam     25%

Course Outline

<table>
<thead>
<tr>
<th>Day/Date</th>
<th>Topic</th>
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<tbody>
<tr>
<td>8/28</td>
<td>Introduction and class overview</td>
</tr>
<tr>
<td>9/4</td>
<td>First look at GIS data, databases, CAD, related applications</td>
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<tr>
<td>9/11</td>
<td>Vector data and raster data models</td>
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<tr>
<td>9/18</td>
<td>Types of data available; where and how to get data</td>
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<tr>
<td>9/25</td>
<td>Cartography and graphic design of map products</td>
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<tr>
<td>10/2</td>
<td>Analysis tools; visualization tools</td>
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<tr>
<td>10/9</td>
<td>Planning a project; data projections</td>
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<td>10/16</td>
<td>Midterm; Project topics due</td>
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<tr>
<td>10/23</td>
<td>Applications in rural and urban/suburban planning</td>
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<tr>
<td>10/30</td>
<td>No class</td>
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</tbody>
</table>
11/6   Performing analysis
11/13  Project variables, iterative analysis and data models
11/20  Presenting your findings
11/27  No class – Thanksgiving
12/4   Project presentation and discussion
12/11  Final Exam

**Attendance Policy**
Attendance in class is mandatory. Attendance may be taken at any time during the scheduled class period. If you must miss class due to an emergency, you must contact the instructor as soon as possible and make arrangements for making up missed work. Class discussions and in-class assignments will not be repeated. Three unexcused absences will result in lowering your grade up to one full letter grade at the instructor’s discretion. More than three unexcused absences are grounds for dropping you from the course.

**Classroom and Lab Etiquette**
You are expected to adhere to all of the policies of the University, including those covered in the School of Architecture Student Handbook. It is your responsibility to be familiar with these. Your grade may be lowered for repeated violations of classroom etiquette or any other policy in the Handbook.

To create a quality learning environment, please abide by the following:
- No cell phones during class.
- No email or internet surfing during class.
- No loud or disruptive noises.
- Respect the equipment.

**Disability Policy**
If you have a documented disability that may require assistance, you will need to contact the Learning Enhancement Services for coordination in your academic accommodations.

**Copyright Policy**
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