UNLV School of Architecture
AAL 465/665 – GIS Planning Methods
Fall 2009

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)

In lieu of requiring a text book to be purchased, please purchase (or otherwise have available) a UBS flash drive with at least 4Gb of space for use that you will bring with you to each class. These can be purchased most anywhere and should not cost more than about $20.00.

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

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<thead>
<tr>
<th>Date</th>
<th>Topic</th>
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<tbody>
<tr>
<td>8/27</td>
<td>Class overview and introduction; Exercise 1</td>
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<tr>
<td>9/3</td>
<td>Getting to know ArcMap; Exercise 2 &amp; 3</td>
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<td>9/10</td>
<td>Data creation; where does data come from; Exercise 4</td>
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<tr>
<td>9/17</td>
<td>Getting to know more ArcMap; Exercise 5</td>
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<tr>
<td>9/24</td>
<td>Working with data; types of data available; where and how to get data</td>
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<td>10/1</td>
<td>Data collection; working with GPS data; working with CAD data</td>
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<td>10/8</td>
<td>Midterm project</td>
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<td>10/15</td>
<td>Analysis tools; performing analysis</td>
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<td>10/22</td>
<td>Applications in rural and urban/suburban planning; discuss final project</td>
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<td>10/29</td>
<td>Performing analysis; project variables, iterative analysis and data models</td>
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<td>11/5</td>
<td>Presenting your findings; visualization tools</td>
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<td>11/12</td>
<td>Visualization part II, work on final projects</td>
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<td>11/19</td>
<td>Work on final projects</td>
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<tr>
<td>11/26</td>
<td>Thanksgiving – no class</td>
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<tr>
<td>12/3</td>
<td>Project presentation and discussion</td>
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<tr>
<td>12/10</td>
<td>Final Exam</td>
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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.

Academic Misconduct – “Academic integrity is a legitimate concern for every member of the campus community; all share in upholding the fundamental values of honesty, trust, respect, fairness, responsibility and professionalism. By choosing to join the UNLV community, students accept the expectations of the Academic Misconduct Policy and are encouraged when faced with choices to always take the ethical path. Students enrolling in UNLV assume the obligation to conduct themselves in a manner compatible with UNLV’s function as an educational institution.”
An example of academic misconduct is plagiarism: “Using the words or ideas of another, from the Internet or any source, without proper citation of the sources.” See the “Student Academic Misconduct Policy” (approved December 9, 2005) located at: http://studentlife.unlv.edu/judicial/misconductPolicy.html.

Copyright – The University requires all members of the University Community to familiarize themselves and to follow copyright and fair use requirements. You are individually and solely responsible for violations of copyright and fair use laws. The university will neither protect nor defend you nor assume any responsibility for employee or student violations of fair use laws. Violations of copyright laws could subject you to federal and state civil penalties and criminal liability, as well as disciplinary action under University policies. To familiarize yourself with copyright and fair use policies, you are encouraged to visit the following website: http://www.unlv.edu/committees/copyright/.

Disability Resource Center (DRC) – It is important to know that over two-thirds of the students in the DRC reported that this syllabus statement, often read aloud by the faculty during class, directed them to the DRC office.

The Disability Resource Center (DRC) coordinates all academic accommodations for students with documented disabilities. The DRC is the official office to review and house disability documentation for students, and to provide them with an official Academic Accommodation Plan to present to the faculty if an accommodation is warranted. Faculty should not provide students accommodations without being in receipt of this plan.

UNLV complies with the provisions set forth in Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, offering reasonable accommodations to qualified students with documented disabilities. If you have a documented disability that may require accommodations, you will need to contact the DRC for the coordination of services. The DRC is located in the Student Services Complex (SSC), Room 137, and the contact numbers are: Voice (702) 895-0866, TDD (702) 895-0652, fax (702) 895-0651. For additional information, please visit: http://studentlife.unlv.edu/disability/.

Religious Holidays Policy -- Any student missing class quizzes, examinations, or any other class or lab work because of observance of religious holidays shall be given an opportunity during that semester to make up missed work. The make-up will apply to the religious holiday absence only. It shall be the responsibility of the student to notify the instructor no later than the last day at late registration of his or her intention to participate in religious holidays which do not fall on state holidays or periods of class recess. This policy shall not apply in the event that administering the test or examination at an alternate time would impose an undue hardship on the instructor or the university which could not be avoided. http://catalog.unlv.acalog.com/content.php?catoid=1&navoid=44&bc=1

Tutoring -- The Academic Success Center (ASC) provides tutoring and academic assistance for all UNLV students taking UNLV courses. Students are encouraged to stop by the ASC to learn more about subjects offered, tutoring times and other academic resources. The ASC is located across from the Student Services Complex, #22 on the current UNLV map. Students may learn more about tutoring services by calling (702) 895-3177 or visiting the tutoring web site at: http://academicsuccess.unlv.edu/tutoring/

UNLV Writing Center – The following statement is recommended for inclusion in course syllabi:

One-on-one or small group assistance with writing is available free of charge to UNLV students at the Writing Center, located in CDC-3-301. Although walk-in consultations are sometimes available, students with appointments will receive priority assistance. Appointments may be made in person or by calling 895-3908. The student’s Rebel ID Card, a copy of the assignment (if possible), and two copies of any writing to be reviewed are requested for the consultation. More information can be found at: http://writingcenter.unlv.edu/