PLAN 5331-001: GIS WORKSHOP

Instructor: Dr. Jianling Li
Thursday, 6:00 pm ~ 9:50 pm
Room: TBA

CONTACT INFORMATION
Office: ARCH420
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Email: jjli@uta.edu
Office hours: by appointment
Faculty Profile: https://www.uta.edu/mentis/profile/?1139

COURSE DESCRIPTION AND OBJECTIVES
This course is the capstone course for the GIS Certificate Program. In the Introduction and Intermediate GIS classes, students have learned GIS fundamentals and techniques for spatial analysis. This course will focus on problem-solving skills for spatial problems using the knowledge and techniques learned in the previous GIS classes. Specifically, students will engage in an exercise of completing a GIS project independently through a problem-solving process. Students will work under both individual and group settings, and participate in activities ranging from problem identification, action planning, data collection, data preparation, spatial analysis, to presentation of findings. Through such a process, students will have an opportunity to refresh the spatial analysis techniques learned in the previous classes, and acquire the experience and skills of applying GIS as a tool to a comprehensive research or planning project. This class substitutes for one Project Planning Course.

PREREQUISITES
Completion of CIRP/PLAN5356 and CIRP/PLAN5357 or consent of the instructor

MEASURABLE STUDENT LEARNING OUTCOMES
Upon the completion of the class, students will be able to:
• conceptualize spatial problems;
• identify data needs for the problems;
• search for needed data;
• consolidate spatial data and develop a geodatabase for a project;
• identify appropriate techniques for spatial analysis;
• perform sound spatial analysis using the identified techniques;
• report findings;
• learn the procedures and techniques for carrying out a GIS project; and
The main requirement for this class is to complete a professional GIS project. Students can either work as a group to complete a group project or work independently on a project that is of interest to them individually. Students are expected to: (1) collectively or independently design a project that contains spatial elements, (2) apply appropriate spatial analysis techniques to solve the problems, and (3) complete the project with high professional standards.

**GIS Project:** The project includes three parts:
- a project proposal,
- a mid-term project progress report, and
- the final project.

The project proposal should be a 1–2 page document that outlines the objective(s) of the project, specific questions or problems that can be solved with GIS, type of data needed to be collected, sources of data, tasks to be completed, and timeline of completing the tasks.

The mid-term project progress report should contain all the elements included in the proposal, plus any additions to, or elaborations of the elements and a brief summary of the progress and remaining tasks. If for any reason students need to change the project plan, either topic, data, method or analytical techniques, they should discuss with the instructor as soon as possible, but no later than the due date of the mid-term progress report.

The final project should contain a complete project report, the PowerPoint presentation, and a GIS database developed for the project. The project report should document the project objectives, the method and/or techniques and data used for the project, the tasks performed, findings, and references. All maps and tables included in the report should be properly labeled and referenced in the text. All references should be appropriately cited in the text and listed in the report. Project proposal, mid-term progress report, and the final report should be typewritten and completed by the due dates (see class schedule for the due dates). Work turned in past the due dates will be penalized 10% for each week late. No project will be accepted after August 13, 2020 unless special arrangement has been made.
with the instructor. Final project report will be evaluated based on the criteria listed in the MCRP Written Communication Assessment Rubric.

**Presentation:** Students are required to prepare a 10–15 minute computer-aided/PPT presentation on their term projects. Students’ presentation will be evaluated based on the criteria specified in the Oral Communication Assessment Rubric.

**Class Attendance/Participation:** This is a studio class. Students work on their research projects individually or as a group. Students are expected to work individually or collectively according to the project plan that they develop at the beginning of the semester. In addition, students should consult with the instructor for technical or other problems related to the project during the course of project development. Individual or group will meet with the instructor throughout the semester to ensure the completion of their projects. Students are required to attend all the class meetings as specified in the class schedule and actively contribute to class discussions.

**Individual Reflection Essay:** Each student is required to submit a reflection essay and share his/her experience in class at the end of the semester.

If, for any reason, students wish to drop the class, please refer to the university policy and drop before or by the date established by the university.

**GRADING POLICY**
The course grading will be based on the following components:

1. Term project proposal: 10%
2. Mid-term progress report: 15%
3. Complete project: 45%
4. Presentation: 10%
5. Reflection Essay: 10%
6. Class participation 10%

Total: 100%

**LIBRARIAN TO CONTACT**
Mitch Stepanovich 817-272-2945 stepanovich@uta.edu
ADDENDUM TO COURSE SYLABUS

Drop Policy: Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if they do not plan to attend after registering. **Students will not be automatically dropped for non-attendance.** Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (http://wweb.uta.edu/aao/fao/).

Americans with Disabilities Act: The University of Texas at Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including the *Americans with Disabilities Act (ADA)*. All instructors at UT Arlington are required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Any student requiring an accommodation for this course must provide the instructor with official documentation in the form of a letter certified by the staff in the Office for Students with Disabilities, University Hall 102. Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at www.uta.edu/disability or by calling the Office for Students with Disabilities at (817) 272-3364.

Academic Integrity: Students enrolled in this course are expected to adhere to the UT Arlington Honor Code:

*I pledge, on my honor, to uphold UT Arlington’s tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.*

*I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.*

UT Arlington faculty members may employ the Honor Code as they see fit in their courses, including (but not limited to) having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. Per UT System Regents’ Rule 50101, §2.2, suspected violations of university’s standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student’s suspension or expulsion from the University.
Student Support Services: UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to resources@uta.edu, or view the information at www.uta.edu/resources.

Electronic Communication: UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at http://www.uta.edu/oit/cs/email/mavmail.php.

Student Feedback Survey: At the end of each term, students enrolled in classes categorized as “lecture,” “seminar,” or “laboratory” shall be directed to complete an online Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student’s feedback enters the SFS database anonymously and is aggregated with that of other students enrolled in the course. UT Arlington’s effort to solicit, gather, tabulate, and publish student feedback is required by state law; students are strongly urged to participate. For more information, visit http://www.uta.edu/sfs.

Final Review Week: A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week unless specified in the class syllabus. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.

Emergency Exit Procedures: Should we experience an emergency event that requires us to vacate the building, students should exit the room and move toward the nearest exit. When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist handicapped individuals.
### COURSE SCHEDULE

<table>
<thead>
<tr>
<th>Date</th>
<th>Topics</th>
<th>Activity*</th>
<th>Milestone**</th>
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<tbody>
<tr>
<td>June 11</td>
<td>Research Topic Selection</td>
<td>Individual Preparation</td>
<td>Complete background research</td>
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<td></td>
<td>Project Design</td>
<td>of Project Plan &amp; Proposal</td>
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<td>June 18</td>
<td>Proposal Discussion</td>
<td>Class Meeting</td>
<td>Complete Proposal Due</td>
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<td>June 25</td>
<td>Data exploration</td>
<td>Individual/Group Meeting</td>
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<td>Proposal Revision</td>
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<td>July 2</td>
<td>Data Collection</td>
<td>Individual/Group Meeting</td>
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<td>July 9</td>
<td>Database Construction</td>
<td>Individual/Group Meeting</td>
<td>Progress Report Due</td>
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<td>July 16</td>
<td>Data Analysis</td>
<td>Class Meeting</td>
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<tr>
<td>July 23</td>
<td>Data Analysis</td>
<td>Individual/Group Meeting</td>
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<td></td>
<td>Preliminary Report</td>
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<td>July 30</td>
<td>Project Report</td>
<td>Individual/Group Meeting</td>
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<td>August 6</td>
<td>Presentation</td>
<td>Class Meeting</td>
<td>Final Project Due</td>
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<tr>
<td>August 13</td>
<td>Reflection Essay</td>
<td>Class Meeting</td>
<td>Reflection Essay Due</td>
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* Tentatively weekly activities, which could be changed depending on needs

** See blackboard for specific due date and time for each milestone outcome