Geospatial Software Systems I - GISC 2438.001/.201
Department of Computing Sciences
Fall 2020

A. COURSE INFORMATION

Course number/section: GISC 2438.001/.201
Class meeting time: Lecture: TR 12:30 – 01:45 PM
Lab: Online
Class location: Lecture: RFEB 104
Course Website: Blackboard Class Website

B. INSTRUCTOR INFORMATION

Instructor: Prof. Antonio Medrano
Office location: NRC 3404
Office hours: TR 2:30pm-5:00pm and by appointment
Telephone: 361-825-2548
e-mail: antonio.medrano@tamucc.edu

C. COURSE DESCRIPTION

Catalog Course Description
This course offers an introduction to the design and development of web GIS software to solve spatial problems. Topics covered include programming basics, web GIS architecture and components, JavaScript programming, and design and implementation common tasks in web-based GIS applications.

D. PREREQUISITES AND COREQUISITES

Prerequisites
GISC 1470 and COSC 1435

Corequisites
None

E. REQUIRED TEXTBOOK(S), READINGS AND SUPPLIES

Required Textbook(s)
None

Optional Textbook(s) or Other References

Suggested Supplies
Your own laptop computer.
F. STUDENT LEARNING OUTCOMES AND ASSESSMENT

Assessment is a process used by instructors to help improve learning. Assessment is essential for effective learning because it provides feedback to both students and instructors. A critical step in this process is making clear the course’s student learning outcomes that describe what students are expected to learn to be successful in the course. The student learning outcomes for this course are listed below. By collecting data and sharing it with students on how well they are accomplishing these learning outcomes students can more efficiently and effectively focus their learning efforts. This information can also help instructors identify challenging areas for students and adjust their teaching approach to facilitate learning.

By the end of this course, students should be able to:
1. Understand Web GIS basic architecture and components.
2. Understand HTML and CSS concepts necessary for web page development.
3. Design and build JavaScript programs for web applications.
4. Develop basic ArcGIS web applications.

G. INSTRUCTIONAL METHODS AND ACTIVITIES

Most lectures will be presented in the classroom and up to 24% of lectures will be online. Students will attend lectures. Labs will be fully online, and a discussion board will be available on Blackboard for students to ask questions.

H. MAJOR COURSE REQUIREMENTS AND GRADING

Student learning outcomes will be assessed through assignments, quizzes, exams, and final project. Assignments will be graded based on completeness, correctness, and documentation.

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>% of FINAL GRADE</th>
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<tbody>
<tr>
<td>Quizzes and Exams</td>
<td>30</td>
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<tr>
<td>Assignments</td>
<td>50</td>
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<td>Final Project</td>
<td>20</td>
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I. COURSE CONTENT/SCHEDULE

<table>
<thead>
<tr>
<th>Week</th>
<th>TOPIC</th>
<th>ASSIGNMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,</td>
<td>8/19 Introduction</td>
<td>See Blackboard for updates</td>
</tr>
<tr>
<td>2,</td>
<td>8/24 Intro to JavaScript</td>
<td>See Blackboard for updates</td>
</tr>
<tr>
<td>3,</td>
<td>8/31 Control Statements</td>
<td>See Blackboard for updates</td>
</tr>
<tr>
<td>4,</td>
<td>9/7 HTML</td>
<td>See Blackboard for updates</td>
</tr>
<tr>
<td>5,</td>
<td>9/14 CSS Styling</td>
<td>See Blackboard for updates</td>
</tr>
<tr>
<td>6,</td>
<td>9/21 JavaScript Functions</td>
<td>See Blackboard for updates</td>
</tr>
<tr>
<td>Week</td>
<td>TOPIC</td>
<td>ASSIGNMENTS</td>
</tr>
<tr>
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</tr>
<tr>
<td>7,  9/28</td>
<td>Creating ArcGIS Web Apps</td>
<td>See Blackboard for updates</td>
</tr>
<tr>
<td>8,  10/5</td>
<td>Implementing Layers</td>
<td>See Blackboard for updates</td>
</tr>
<tr>
<td>9,  10/12</td>
<td>Viewing Maps in 3D</td>
<td>See Blackboard for updates</td>
</tr>
<tr>
<td>10,  10/19</td>
<td>Adding Widgets to Web Apps</td>
<td>See Blackboard for updates</td>
</tr>
<tr>
<td>11,  10/26</td>
<td>Drawing Graphics</td>
<td>See Blackboard for updates</td>
</tr>
<tr>
<td>12,  11/2</td>
<td>Searching</td>
<td>See Blackboard for updates</td>
</tr>
<tr>
<td>13,  11/9</td>
<td>Selecting Features</td>
<td>See Blackboard for updates</td>
</tr>
<tr>
<td>14,  11/16</td>
<td>Rendering Features</td>
<td>See Blackboard for updates</td>
</tr>
<tr>
<td>15,  11/23</td>
<td>Project Proposal Presentations</td>
<td>See Blackboard for updates</td>
</tr>
<tr>
<td>16,  12/1</td>
<td>Final Projects</td>
<td>See Blackboard for updates</td>
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Note: Changes in this course schedule may be necessary and will be announced to the class by the Instructor. See Blackboard for updates.

J. COURSE POLICIES

COVID-19

**Face Coverings** - (cloth face covering, surgical mask, etc.) must be properly worn in all non-private spaces including classrooms, teaching laboratories, common spaces such as lobbies and hallways, public study spaces, libraries, academic resource and support offices, and outdoor spaces where 6 feet of physical distancing is difficult to reliably maintain. Extra masks will be made available if needed.

**Attendance/Tardiness**

Students are expected to attend regular class and meetings.

**Late Work and Make-up Exams**

All assignments must be completed on time. Submission of an assignment after the due date is accepted, but with a penalty of 20% of the grade for the first 24 hours late, and 5% each additional 24 hours. Make-up exams and assignments are not permitted except for documented, exceptional reasons.

**Missed Exam**

Make-up exams will not be allowed without prior arrangements.

**Originality of Work**

Every exam and lab assignment for this class must be your own work.
Communication about Life Events
It is your (student’s) responsibility to keep up with the course instruction, assignments, and examinations. Should a life event interrupt your ability to meet these responsibilities, you must inform the instructor about this as soon as possible and within a reasonable amount of time so that a course of action can be determined. Communicating with the instructor about these life events in an unreasonable time frame is not acceptable and will not change the outcome of missed work nor will it be a valid reason to receive an ‘Incomplete’ designation for the course.

Others
It’s a good idea to browse online sources to see what JavaScript have been developed for ArcGIS Applications. This will give you a sense of the scope and complexity of the program. However, you must acknowledge the sources of any codes that you borrow in your application. You will fail this class if you commit plagiarism.

K. COLLEGE AND UNIVERSITY POLICIES

Academic Integrity (University)
University students are expected to conduct themselves in accordance with the highest standards of academic honesty. Academic misconduct for which a student is subject to penalty includes all forms of cheating, such as illicit possession of examinations or examination materials, falsification, forgery, complicity or plagiarism. (Plagiarism is the presentation of the work of another as one’s own work.) In this class, academic misconduct or complicity in an act of academic misconduct on an assignment or test will result in a failing grade.

Classroom/Professional Behavior
Texas A&M University-Corpus Christi, as an academic community, requires that each individual respect the needs of others to study and learn in a peaceful atmosphere. Under Article III of the Student Code of Conduct, classroom behavior that interferes with either (a) the instructor’s ability to conduct the class or (b) the ability of other students to profit from the instructional program may be considered a breach of the peace and is subject to disciplinary sanction outlined in article VII of the Student Code of Conduct. Students engaging in unacceptable behavior may be instructed to leave the classroom. This prohibition applies to all instructional forums, including classrooms, electronic classrooms, labs, discussion groups, field trips, etc.

Statement of Civility
Texas A&M University-Corpus Christi has a diverse student population that represents the population of the state. Our goal is to provide you with a high quality educational experience that is free from repression. You are responsible for following the rules of the University, city, state and federal government. We expect that you will behave in a manner that is dignified, respectful and courteous to all people, regardless of sex, ethnic/racial origin, religious background, sexual orientation or disability. Behaviors that infringe on the rights of another individual will not be tolerated.
Deadline for Dropping a Course with a Grade of W (University)

I hope that you never find it necessary to drop this or any other class. However, events can sometimes occur that make dropping a course necessary or wise. Please consult with your academic advisor, the Financial Aid Office, and me, before you decide to drop this course. Should dropping the course be the best course of action, you must initiate the process to drop the course by going to the Student Services Center and filling out a course drop form. Just stopping attendance and participation WILL NOT automatically result in your being dropped from the class. Please consult the Academic Calendar for the last day to drop a course.

Grade Appeals (College of Science and Engineering)

As stated in University Procedure 13.02.99.C0.03, Student Grade Appeal Procedures, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is required to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Procedure 13.02.99.C0.03, Student Grade Appeal Procedures. These documents are accessible through the University Rules website. For assistance and/or guidance in the grade appeal process, students may contact the chair or director of the appropriate department or school, the Office of the College of Science and Engineering Dean, or the Office of the Provost.

Disability Services

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please call (361) 825-5816 or visit Disability Services in Corpus Christi Hall 116.

If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services office for assistance at (361) 825-5816.

Civil Rights Complaints

Texas A&M University-Corpus Christi is committed to fostering a culture of caring and respect that is free from discrimination, relationship violence and sexual misconduct, and ensuring that all affected students have access to services. For information on reporting Civil Rights complaints, options and support resources (including pregnancy support accommodations) or university policies and procedures, please contact the University Title IX Coordinator, Sam Ramirez (Samuel.ramirez@tamucc.edu) or Deputy Title IX Coordinator, Rosie Ruiz (Rosie.Ruiz@tamucc.edu) x5826, or visit website at Title IX/Sexual Assault/Pregnancy.
Limits to Confidentiality. Essays, journals, and other materials submitted for this class are generally considered confidential pursuant to the University's student record policies. However, students should be aware that University employees, including instructors, are not able to maintain confidentiality when it conflicts with their responsibility to report alleged or suspected civil rights discrimination that is observed by or made known to an employee in the course and scope of their employment. As the instructor, I must report allegations of civil rights discrimination, including sexual assault, relationship violence, stalking, or sexual harassment to the Title IX Coordinator if you share it with me. These reports will trigger contact with you from the Civil Rights/Title IX Compliance office who will inform you of your options and resources regarding the incident that you have shared. If you would like to talk about these incidents in a confidential setting, you are encouraged to make an appointment with counselors in the University Counseling Center.

Statement of Academic Continuity
In the event of an unforeseen adverse event, such as a major hurricane and classes could not be held on the campus of Texas A&M University–Corpus Christi; this course would continue through the use of Blackboard and/or email. In addition, the syllabus and class activities may be modified to allow continuation of the course. Ideally, University facilities (i.e., emails, web sites, and Blackboard) will be operational within two days of the closing of the physical campus. However, students need to make certain that the course instructor has a primary and a secondary means of contacting each student.

L. OTHER INFORMATION

Academic Advising
The College of Science & Engineering requires that students meet with an Academic Advisor as soon as they are ready to declare a major. The Academic Advisor will set up a degree plan, which must be signed by the student, a faculty mentor, and the department chair. Meetings are by appointment only; advisors do not take walk-ins. Please call or stop by the Advising Center to check availability and schedule an appointment. The College’s Academic Advising Center is located in Center for Instruction 350 or can be reached at (361) 825-3928.

GENERAL DISCLAIMER
I reserve the right to modify the information, schedule, assignments, deadlines, and course policies in this syllabus if and when necessary. I will announce such changes in a timely manner during regularly scheduled lecture periods.