Department of Computing Sciences
Fall 2020

A. COURSE INFORMATION
Course number/section: GISC 1470.001/.201, .331/.431 & W01/.W11
Class meeting time: Lecture: TR 12:30 – 1:45 PM (WebEx)
Lab: R 2:00 – 4:45 PM
Class location: Fully online (W01, W11)
CI 127 (001 & 331, virtually)
CI 229 (201 & 431, virtually)
Course Website: http://bb9.tamucc.edu (lecture course website)

B. INSTRUCTOR INFORMATION
Instructor: Dr. Hongzhi Song
Office location: CBI 108
Office hours: TR 2:00 – 3:30 PM and W 10 AM – 12 PM via WebEx;
or by appointment
Telephone: 361-825-3198
e-mail: hongzhi.song@tamucc.edu
Appointments: Email to make an appointment (include “GISC 1470.001, 1470.331 or 1470.W01” in subject line).

C. COURSE DESCRIPTION
Catalog Course Description
Introduction to geographic information systems (GIS) and its theoretical foundations. Topics covered include vector and raster data models, acquisition and manipulation of data, cartography, current topics, data quality, and basic spatial analysis. Principles and uses of GIS software also covered.

D. PREREQUISIT ES AND COREQUISITES
Prerequisites
None

E. REQUIRED TEXTBOOK(S), READINGS AND SUPPLIES
Required Textbook(s)
Suggested Supplies
• Data Storage Mechanism - Thumb drive or external hard drive or Cloud Storage for Lab Data

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 the principle concepts of geographic information systems and science
2. Be familiar with the concepts of geospatial information systems
3. Be familiar with the software used to execute geospatial reasoning and analysis
4. Be familiar with basic cartographic principles
5. Be familiar with areas of application of geographic information systems

G. INSTRUCTIONAL METHODS AND ACTIVITIES

Lectures & labs. Lecture will be delivered fully online for the fully online section.

Approach: lecture, discussion, and practice exercises. Weekly readings will be assigned. There will be up to twelve lab assignments requiring the use of relevant software or problem solving. Non-graded class problem sets, and graded quizzes, will be given to gauge student progress, ensure students are following the material, and spur your thinking.

Course lecture will be conducted virtual online synchronous (via WebEx) and asynchronous (recorded). The detail schedule will be available via Blackboard and its announcement. Announcements will be made beforehand to notify students. Students are expected to keep pace with the course, and completely assigned work in a timely fashion for that week. This is necessary to do well on assignments and quizzes. Virtual lectures and discussions will be hosted on occasion via webex, during class or lab period, and announcements will be made beforehand to notify students. Students can join into these live. Occasionally, the professor may decide to hold in-person problem solving and learning sessions for students. These will be held in CI 229 during lab period. The class will be notified beforehand. The occurrence of these events during the semester will be subject to the evolving situation with Covid-19 and maximum capacity requirements (8 at the time of this writing).

Lab for this course will also be conducted remotely. Assignments will be posted to Bb and students will be able to work on them remotely via a personal computer and use the available student software licenses to complete the assignments. The GISC computer lab in CI 229 will be open for those who sign up for the need. If you would like to go to the lab (CI 229), you
need to contact the instructor (me) and get approval. As the semester progresses, an online sign up system may be created to make this process more efficient.

H. MAJOR COURSE REQUIREMENTS AND GRADING

Student learning outcomes will be assessed through following activities.

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>% of FINAL GRADE</th>
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</thead>
<tbody>
<tr>
<td>Exams</td>
<td>30</td>
</tr>
<tr>
<td>Application Paper &amp; Presentation (teamwork)</td>
<td>15</td>
</tr>
<tr>
<td>Laboratory Assignments</td>
<td>30</td>
</tr>
<tr>
<td>Quizzes and Participation</td>
<td>15</td>
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<tr>
<td>Final Project: Storymap</td>
<td>10</td>
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</tbody>
</table>

Grade Scale: A (90-100%) B (80-89%) C (70-79%) D (60-69%) F (<60%)

I. COURSE CONTENT/SCHEDULE (Subject to Change)

The following is a rough outline and is subject to change. See the course website for the most up to date information.

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
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<tbody>
<tr>
<td>1</td>
<td>Course Syllabus &amp; Introduction to GIS</td>
</tr>
<tr>
<td>2</td>
<td>Geospatial Data Models</td>
</tr>
<tr>
<td>3</td>
<td>Geodesy and Datum</td>
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<tr>
<td>4</td>
<td>Coordinates and Map Projections</td>
</tr>
<tr>
<td>4</td>
<td>Displaying Geospatial Data</td>
</tr>
<tr>
<td>5</td>
<td>Creating Geospatial Data</td>
</tr>
<tr>
<td>6</td>
<td>Exam</td>
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<tr>
<td>7</td>
<td>GNSS</td>
</tr>
<tr>
<td>8</td>
<td>Aerial and Satellite Imagery</td>
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<td>9</td>
<td>Digital Data</td>
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<td>10</td>
<td>Attribute Data and Tables</td>
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<tr>
<td>11</td>
<td>Basic Spatial Analysis</td>
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<tr>
<td>12</td>
<td>Exam (TBD)</td>
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<tr>
<td>13</td>
<td>Spatial Analysis</td>
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<tr>
<td>14</td>
<td>Spatial Analysis</td>
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<tr>
<td></td>
<td>Project</td>
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<tr>
<td>15</td>
<td>Review and Final Exam</td>
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</table>

Note: Changes in this course schedule may be necessary and will be announced to the class by the Instructor. Detail schedule is available on Blackboard. The assignments and exams shown are directly related to the Student Learning Outcomes described in Section F.

J. **COURSE POLICIES**

**Student Responsibilities**

It is a student’s responsibility to watching the lectures and read/review online (Blackboard) lecture materials, do the readings, do assigned labs submit them via Blackboard; complete all quizzes via Blackboard. All material from lectures, labs and readings may appear on the examinations.


**COVID-19**

Face Coverings—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**

When the lecture is synchronous (see class meeting time in Section A), students are expected attend virtually. Occasionally, the professor may decide to hold in-person problem solving and learning sessions for students. These will be held in CI 127 or CI 229 during the scheduled meeting time. The class will be notified beforehand. The occurrence of these events during the semester will be subject to the evolving situation with COVID-19 and maximum capacity requirements (8 for CI 229 at the time of this writing).

**Late Work and Make-up Exams**

All assignments must be completed on time. A 7% penalty per day will be applied to late assignments **up to one week after they are due date/time**. This means that assignments handed in late on the due date or the next calendar day get a 7% point-deduction, for 2 days late this gives a 14% penalty, and so on. Assignments will **NOT** be accepted if handed in more than one week (7x24 hours) after the due date/time. If you know in advance that you will be late for an assignment, let the instructor know in advance (via email with an official document), and it will be decided by the instructor whether an exception can be made on a case-by-case basis. Make-up Exams and assignments are not permitted except for official documentation, exceptional reasons.
Missed Exam
If you have a conflict with an exam date, please contact professor as soon as you know about the conflict.

Participation
In-group and individual activities on a regular basis will count towards your final grade.

Others
- **All work submitted for grading must be the student's own work.** Plagiarism will result in a score of 0 (zero) for the work or dismissal from the course and the Dean of Students office will be notified. No copying from another student's work of any type is allowed. It is the student's duty to allow no one to copy his or her work. Anyone found cheating and/or copying, in the exams or assignments, in the instructor's opinion, may receive an automatic F for the course.
- **Email.** Consider email as official correspondence warranting professional language. Professional emails include elements such as a short descriptive subject line, salutation, complete inquiry in the body of the message, your full name, and course and section number. Unprofessional emails will result in a non-response and request for proper correspondence.
- **Technological Excuses.** Hard drive crashes and other computer woes will not be accepted as excuses for late submission. Students should, given the complexity of the tasks they will pursue, be sure that they maintain adequate backup copies of all aspects of their work. Additionally, plan ahead, do not wait last minute to do the work. You may NOT submit assignments by email. If for some reason you feel you have to do this, you must ask for, and receive, permission ahead of time; furthermore, you may not consider an emailed assignment to be submitted until you have received a reply confirming that I have received the assignment.

Communication about Life Events. It is the 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.

Tips for Taking an Online Class.
1. Treat an online course like a “real” course.
2. Hold yourself accountable.
3. Practice time management.
4. Create a regular study space and stay organized.
5. Eliminate distractions.
6. Figure out how you learn best.
7. Actively participate.
8. Leverage your network.

Overall: Practice Makes Perfect!
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 (http://www.tamucc.edu/academics/calendar/) for the last day to drop a course.

- **Grade Appeals (College of Science and Engineering)**
  As stated in University Procedure 13.02.99.C.0.03, 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 at http://academicaffairs.tamucc.edu/rules_procedures/assets/13.02.99.c0.03_student_grade_appeals.pdf. 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.

  [http://disabilityservices.tamucc.edu/](http://disabilityservices.tamucc.edu/)

- **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](http://academicaffairs.tamucc.edu/titleix.html).

- **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.