

San José State University
College of Social Sciences/Geography Department
Geog. 170, Introduction to Maps & GIS, Sections 1 & 2, Fall 2020

Instructor:	Dr. Ahoura Zandiatashbar
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Telephone:	TBD
Email:	Ahoura.zandiatashbar@sjsu.edu (preferred method of contact)
Office Hours:	with appointment only - Mondays 1730 to 1830 – via Zoom
Contact	For simple questions, email is the best way to reach me and I'll respond within 72 hours. For more involved questions or discussions, please use the office hours to make an appointment.
Lecture Classroom:	via Zoom (Zoom info. to be shared via Canvas)
Lecture Days & Time	Wednesdays 1700 to 1845
Lab Classroom:	Via Zoom (for both lecture and lab)
Virtual Lab Days & Time:	Wednesdays 1900 to 2145
Prerequisites:	Geography 1: Physical Geography or instructor consent

Course Format

This course has two sections of online synchronous lecture and laboratory. Active participation by all students in both sections is essential to pass *this course*. Course laboratory weekly assignments/quizzes, one final exam, a case study, active participation, and a final project will be used as a basis for grading.

Course Description

Geographic Information Systems Science (GIScience) or -as Jack Dangermond described- "*The Science of Where*" allows managing, describing, analyzing, and presenting information about the relationships between where features are (such as location, size and shape) and what they are like (such as descriptive information known as attribute data). Showing such relationships allows us to represent social and environmental data on map, therefore GIS has become an important tool across a variety of fields including planning, geography, architecture, engineering, public health, environmental science, epidemiology, and business. Even beyond that, GIS now is an important political instrument enabling communities and regions to (geo)graphically tell their stories. This course introduces students to the foundations of mapping and GIS techniques. Throughout the semester, lectures will help to lay the theoretical foundations of the mapping sciences, and laboratory exercises will give us the fundamental tools to build a GIS project.

Course Learning Outcomes (CLO)

Upon successful completion of this course, students will be able to:

1. obtain an understanding of the *basic* principles and concepts of mapping and GIScience
2. gain an *introductory* level knowledge of analyzing location information in form of geospatial data
3. be able to construct a thematic map using a GIScience visualization techniques
4. assess implication of GIScience in solving a variety of societal problems with relation to spatial patterns

Texts/Readings:

Textbook (required) (please note that this book is an interactive .pdf format plus a website which are freely available (likes below), so it is not recommended to purchase a hardcopy).

Harder, C., & Brown, C. (2017). *The ArcGIS book: 10 big ideas about applying the science of where*. Esri Press.

The required textbook is [The ArcGIS Book: 10 Big Ideas About Applying the Science of Where](#) which is available [in an interactive .pdf format](#) and comes with an [Instructional Guide](#) providing the technical knowledge.

This e-book brings 250 examples together for each topic that is covered in each chapter and include several videos from thought leaders in GIScience.

Supplemental Readings

Supplemental readings and activities (mostly tutorials and videos) will be distributed as the semester progresses at class meetings and via Canvas course page.

Other technology requirements / equipment / material

- Arc GIS Online (AGOL) Account – AGOL will be our primary platform this semester and instructor in collaboration with SJSU eCampus will activate student access
- Any web-browser and internet access that allow you to connect for class sessions and enter AGOL
- Microsoft Office – Microsoft Excel will be used frequently (student version available on: [SJSU information technology webpage](#))
- Adobe Creative Suite utilizing Acrobat Reader (available as Adobe Creative Cloud for students on [SJSU eCampus webpage](#))
- Online data storage (e.g. Dropbox, OneDrive, or Google Drive)

Students are required to have an electronic device (laptop, desktop or tablet) with a camera and built-in microphone. , particularly for accessing materials and uploading assignments on Canvas or submitting via email. SJSU has a free [equipment loan](#) program available for students.

Students are responsible for ensuring that they have access to reliable Wi-Fi during tests. If students are unable to have reliable Wi-Fi, they must inform the instructor, as soon as possible or at the latest one week before the test date to determine an alternative. See [Learn Anywhere](#) website for current Wi-Fi options on campus.

Strongly consider an average *lap-top or personal computer* that allows using AGOL and Canvas. Feel free to contact instructor if you have question about the hardware requirements. Using personal computer creates a work environment that is more portable (in case of a laptop) and also supports frequent practice which is a critical factor in learning GIScience techniques.

All Weekly Quizzes (WQs) must be submitted and uploaded to Canvas in Adobe portable document format (.pdf) or Microsoft Word Document format (.doc or .docx)

Course Requirements and Assignment

SJSU classes are designed such that in order to be successful, it is expected that students will spend a minimum of forty-five hours for each unit of credit (normally three hours per unit per week), including preparing for class, participating in course activities, completing assignments, and so on. More details about student workload can be found in [University Policy S12-3](http://www.sjsu.edu/senate/docs/S12-3.pdf) at <http://www.sjsu.edu/senate/docs/S12-3.pdf>.

University policy F69-24 at <http://www.sjsu.edu/senate/docs/F69-24.pdf> states that “Students should attend all meetings of their classes, not only because they are responsible for material discussed therein, but because active participation is frequently essential to insure maximum benefit for all members of the class. Attendance per se shall not be used as a criterion for grading.”

Methods

The course will involve a combination of lectures, discussions and participation, WQs, one case study research paper, a final project and a final examination for grade determination. It is required to read the assigned sections of the textbook and readings prior to the week in which they are discussed. The lectures and discussions will expand on the materials from the readings. Discussions will involve all members of the class because you will be evaluated on participation. In-class exercises and WQs will cover a range of basic mapping and introductory GIScience concepts and techniques.

Class Pace

Instructor will try best to walk through together explaining concepts and doing exercises in class. I will assume a moderate pace. While everyone works at a different pace, going too fast will leave some students behind, but going too slow will make it difficult to hold your attention. If you fall behind, please use the [raise your hand feature in Zoom](#) and instructor (if can do without slowing down the whole class) will help you.

Weekly Quizzes (WQ) (350 Points)

This course will have seven WQs to link conceptual GIS with technical GIS and emphasizes applications to the geography and urban environment. WQs will be posted on Canvas in the Quiz section and is **due on Wednesday at noon; before weekly lecture session starts.**

Case Study Report and Presentation (200 Points): Case study report (<1000-1500 words) on the selected topic (e.g. Transportation, Public Health, Parks, Historic Preservation, Community Development or Economic Development, and the like), **with a narrow and defined focus and a direct connection to your final project.** For example, within transportation, your focus could be on biking networks and stations in San Jose, CA. In this case, make a case study report that brings examples of GIS projects on biking networks and stations wherever happened, preferably withing a similar urban environment. **Students are asked to finalize this section prior to developing the final project proposals as it strongly improves the quality of final project and proposal.** **Reports are due on 10/28/2020 at noon, no need to submit a presentation file.**

- Summarize **3-5** case studies (each up to 300 words). These GIS projects could be carried out by a local, state, federal, or private agency, firm, company or academic institution. But all 3-5 cases should address the selected topic, e.g. biking networks and stations.
- Each summary should explain concisely how GIScience was used to solve a particular problem for the same selected topic, which techniques author(s) used and their relevancy to the student's final project.
- Students will present the case study analyses in no more than 5 slides **on the Week 11**.

Final Project/Presentation (375 Points):

Your final project (composed of a case study submission, final report, proposal submission and presentations) is worth of 625 points, or 50% of your total grade. Examples of case study, proposal and final project, as well as final project grading rubrics will be provided via Canvas.

Purpose and Scope

The purpose of the final project is to demonstrate:

- 1) Good knowledge about GIScience application to a specific topic
- 2) Mastering the basics of AGOL. Your project should exhibit the GIScience concepts as well as AGOL functions that were covered in class, for example map-design techniques including symbology, labeling, table join and relate, map layout and design, and the like.

Proposal Presentation (Due Week 12): Before proposal presentation, students will be invited to participate in *project idea discussion forum* on Canvas and are highly encouraged to consult their topic with instructor. Students will present their project proposal, explaining briefly what they want to do for approval. We will also dedicate time in *lab sessions* to take questions and discuss ideas. After presenting your project proposal, you will have two days to update your proposal based on the comments that you receive during the presentation following the submission details below.

Submission Proposal Presentation and One-Page Proposal together (Due Week 12): After receiving comments on the proposal presentation day, teams will have two days to finalize their project proposals based on the comments for submission. Project proposal statement and presentation **are due on 11/06/2020 midnight**. Students will need to combine and submit one file including both proposal presentation and one page paragraph proposal. Please note that the purpose of the paragraph is to give a generic idea and a direction. You can maneuver and change afterward as needed. Although the proposal submission will be common among team members, each student should submit a copy.

and

It should include:

- Team members.
- Title and Topic/Focus (e.g. Transportation, Public Health, Parks, Historic Preservation, Community Development or Economic Development, and the like).
- Research question (or Hypothesis) that you want GIS to answer or test.
- Data required to do the project and data sources.

Project Progress Presentation: Project progress presentation will occur two weeks prior to the final presentation. Teams will present their project progress to the class (and

possibly an external jury); by when their works should be more than 60% completed and have primary results ready to present. Team will receive feedback to finalize their projects accordingly. These feedbacks will be recorded to be considered for the final evaluation of the projects.

Final project (plus extra points for poster submission):

1. **A short report (1000-1500 words)** that explains the project's contribution. The report should include:
 - a. Context of the project, problem, goals and objectives, inspiring precedents, etc.
 - b. Major steps to create AGOL maps, technical challenges, data issues.
 - c. Main findings, transferable lessons, future work.
 - d. Include key maps and links to the final maps.
 - e. Acknowledge limitations and indicate future work.
 - f. Include list of data sources. This could be placed at the end of the report.
2. **A presentation** that displays *final maps and findings*. The final presentation should explain the key steps involved in making these maps in form of a framework. It is highly encouraged to visualize the steps of completing the project. A template for final project presentation will be shared on Canvas.

A Review of Deadlines for the Final Project

1. **Week 12_Proposal Presentation:** Students will present their project proposals. See proposal presentation instruction and examples on Canvas.
2. **Week 12_Submit Proposal Presentation Plus One-Page Proposal Statement:** You will submit one paragraph proposal **on 11/06/2020 midnight**, explaining briefly what you want to do for approval. Example of one paragraph statement and project examples ideas will be available on Canvas.
3. **Week 15_Project Progress Presentation:** No more than five slides including one slide intro and background, two slides for method and two slides for your primary findings.
4. **Week 17_Final Project Presentation:** Submit all materials on the day of presentation. Your final project presentation includes report, a presentation and a poster submission for extra points as well which might be displayed during an exhibition.

Final Examination (225 Points)

There will be one final examination covering all of the GIScience principles that will be covered in class. Class lectures assigned chapters of the text e-book and weekly quizzes are the major sources for final exam. There will be no makeup examinations unless for serious and compelling reasons.

Class Participation (100 Points)

Plan to attend all class meetings, presentations, open lab sessions and discussion forums. Active participation is a vital element of the course. This not only makes the class more interesting and enjoyable, but you are responsible for material discussed during class and you cannot earn an "A" without participating. Your class participation grade will include contributing to discussions and in-class exercises, presentations, Canvas discussion forums, creativity in making your presentations as participatory and interactive as possible. Quality participation also includes reading weekly assignments prior to attending class, volunteering information and ideas to discussions, asking and answering questions through the presentations,

creativity in your presentation, and being an active participant on Canvas. Class participation is worth 125 points, 10% of your final grade.

Grading Information

This course must be passed with a C or better as a Urban and Regional department graduation requirement.

Correct use of English and proper formatting/style are fundamental requirements for your assignments to be graded. If errors in English make it difficult for a grader to understand your sentences, or excessively slow down the grader to mark your technical errors; then your examinations and case study assignment will be returned to you for further work on its English, and your grade for the paper will be deferred until it is resubmitted with corrected English. There should be a formal tone from your essays: no breezy style and **no contractions** (Please refer to the Purdue Owl's webpage on the appropriate use of language at <https://owl.english.purdue.edu/owl/resource/608/01/>). If any of the previously mentioned styles are used, then they will be counted as an error of syntax and/or grammar. An excess of nine errors per assignment will warrant a 10% reduction. The first ten identified errors in spelling, syntax, and grammar will be noted on your document. Therefore, it is up to you to proofread your assignment prior to submission.

This class will follow the American Psychological Association (APA) formatting and style guidelines; therefore, if you must cite sources please conform to APA guidelines. The Purdue Owl APA Guidelines at <https://owl.english.purdue.edu/owl/resource/560/01/> is a useful resource for general information.

If you have any questions regarding formatting and style forms, then please feel free to ask me.

When required as such, assignments should be submitted as soft copy documents as an Adobe portable document format (.pdf) file only. Assignments, proposal, case study/literature review, formal project proposal for graduate students, must be written using formal academic writing styles conforming to these guidelines:

1. All Assignments should be in .pdf format and must have your Name, course number (GEOG170), assignment number, date, and page number ON EVERY PAGE. Here is an example: John Brown, Fall GEOG170, ASS_01, 22 SEP_2020 Page x
2. Times New Roman 12pt normal font
3. double line spacing
4. 1" margin all around
5. Proper numbering formats without question prompts

If any of the above standards are not adhered to, then there will be a 0.1 point reduction for each violation from above.

If your assignments are rejected for an excessive number of errors, you will be allowed to rewrite and resubmit said document within two weeks from the original due date. After the two weeks of the initial grading period, all assignments will be considered final. If you did not take advantage of the redo, then the final grading stands—all detected errors will be downgraded accordingly. See the Canvas webpage for more information.

Determination of Grades

A strong performance in all areas of assessment is necessary to achieve the highest grade in this course. You will not be graded on attendance. However, it is not possible to do well if you are not present in class to join in discussions and complete the laboratory exercises.

It is your responsibility to inform me in advance if you know you must miss a class for a valid

reason. Excused absences refer to illness, family responsibilities, and similar necessities. Exceptions to these policies will be made only in the case of officially documented emergencies. Contact me regarding emergencies as soon as possible—before an assignment is due rather than after it is already late—so special arrangements may be made.

Grade Breakdown

Task	Points	Percent
Participation	100	8
WQs	350	28
Case study	200	16
Final project	375	30
Final exam	225	18
Total	1250	100

Letter Grades: Percentage Ranges & Point Ranges

Letter Grade	Percent Range	Points Range	Letter Grade	Percent Range	Points Range
A+	97.00 to 100.00	1212.50 to 1250.00	C+	77.00 to 79.99	962.50 to 999.99
A	93.00 to 96.99	1162.50 to 1212.49	C	73.00 to 76.99	912.50 to 962.49
A-	90.00 to 92.99	1125.00 to 1162.49	C-	70.00 to 72.99	875.00 to 912.49
B+	87.00 to 89.99	1087.50 to 1124.99	D+	67.00 to 69.99	837.50 to 874.99
B	83.00 to 86.99	1037.50 to 1087.49	D	63.00 to 66.99	787.50 to 837.49
B-	80.00 to 82.99	1000.00 to 1037.49	D-	60.00 to 62.99	750.00 to 787.49
			F	0.00 to 59.99	0.00 to 749.99

Late or Missing Work

Late assignments will be reduced 1% of the total of the assignment for each calendar day missed (one class session missed equals 7% reduction in grade). No late assignments will be accepted after the last full day of instruction.

Note that “All students have the right, within a reasonable time, to know their academic scores, to review their grade-dependent work, and to be provided with explanations for the determination of their course grades.” See University Policy F13-1 at <http://www.sjsu.edu/senate/docs/F13-1.pdf> for more details.

Class Protocols

1. Respect for diversity and inclusivity: My goal is that students from all diverse backgrounds and perspectives be well-served by this course and their learning needs be addressed both in and out of class. The diversity that students bring to this class is viewed as a resource, strength and benefit. My goal is to present materials and activities that are respectful of diversity: gender identity, sexuality, disability, age, socioeconomic status, ethnicity, race, nationality, religion, and culture. In this regard, your suggestions are highly encouraged and appreciated. Please let me know ways to improve the effectiveness of the course for you personally, or for other students or student groups. Given the sensitive and challenging nature of the material in this course, I aim to have an atmosphere of trust and safety in the classroom and will attempt to foster such an environment; in which each class member is able to hear and respect each other. Hence, it is quite essential critical that each member of this class shows respect for all views expressed in class. Therefore, please let me know of something that is said or done in the classroom, by either myself or other students, which is particularly troubling or causes discomfort or offense. Although, I believe our intention may not be to cause discomfort or offense, the impact of such incidents throughout the course is very important and; therefore, deserving of attention. If and when this occurs, there are multiple ways to ease some of the discomfort you may experience:

- Discuss the incident privately with me. I am open to listening to you experience and will work with students to find acceptable ways to process and address the issue.
- Notify me of the issue through another source such as your academic advisor, a trusted faculty member, or a peer. If for any reason you do not feel comfortable discussing the issue directly with me, I encourage you to seek out another, more comfortable avenue to address the issue.

2. Zoom Class Protocol:

- You are *highly encouraged* (but not required) to turn your camera on in Zoom. Instructor/Teaching Assistant will be available to help to find accommodation for special needs, however requests should be made in advance of Zoom sessions. You are encouraged to share with instructor any concerns or circumstances that might deter you from turning camera on in Zoom.
- Any student that needs accommodations or assistive technology due to a disability should work with the Accessible Education Center (AEC), and the instructor.

3. Zoom Classroom Etiquette:

- Mute Your Microphone: To help keep background noise to a minimum, make sure you mute your microphone when you are not speaking.
- Be Mindful of Background Noise and Distractions: Find a quiet place to "attend" class, to the greatest extent possible.
 - Avoid video setups where people may be walking behind you, people talking/making noise, etc.
 - Avoid activities that could create additional noise, such as shuffling papers, listening to music in the background, etc.
- Position Your Camera Properly: Be sure your webcam is in a stable position and focused at eye level.
- Limit Your Distractions/Avoid Multitasking: You can make it easier to focus on the meeting by turning off notifications, closing or minimizing running apps, and putting your smartphone away (unless you are using it to access Zoom).
- Use Appropriate Virtual Backgrounds: If using a virtual background, it should be appropriate and professional and should NOT suggest or include content that is objectively offensive or demeaning.

4. Proctoring Software and Exams

- Exams will be proctored in this course through Respondus Monitor and LockDown Browser. Please note it is the instructor's discretion to determine the method of proctoring. If cheating is suspected the proctored videos may be used for further inspection and may become part of the student's disciplinary record. Note that the proctoring software does not determine whether academic misconduct occurred, but does determine whether something irregular occurred that may require further investigation. Students are encouraged to contact the instructor if unexpected interruptions (from a parent or roommate, for example) occur during an exam.

5. Recording Zoom Classes

- This course or portions of this course (i.e., lectures, discussions, student presentations) will be

recorded for instructional or educational purposes. The recordings will only be shared with students enrolled in the class through Canvas. The recordings will be deleted at the end of the semester. If, however, you would prefer to remain anonymous during these recordings, then please speak with the instructor about possible accommodations (e.g., temporarily turning off identifying information from the Zoom session, including student name and picture, prior to recording).

- Students are not allowed to record without instructor permission

Students are prohibited from recording class activities (including class lectures, office hours, advising sessions, etc.), distributing class recordings, or posting class recordings. Materials created by the instructor for the course (syllabi, lectures and lecture notes, presentations, etc.) are copyrighted by the instructor. This university policy (S12-7) is in place to protect the privacy of students in the course, as well as to maintain academic integrity through reducing the instances of cheating. Students who record, distribute, or post these materials will be referred to the Student Conduct and Ethical Development office. Unauthorized recording may violate university and state law. It is the responsibility of students that require special accommodations or assistive technology due to a disability to notify the instructor.

6. Students are expected to participate in class by asking questions, attending class and showing up on time (you will be tested on materials that are given and will be advised of any schedule changes at each class session), and finally, respecting the instructor and other students in the classroom.

7. Take notes from your readings and feel free to share your questions and experience with others via discussion forums on Canvas.

8. Students are expected to attend sessions so that you can remain aware of schedule changes and exam information. The majority of course content will come from lectures and course activities.

9. The work you submit must be your own. Plagiarism, representing the work of others as your own, is immoral, illegal, and absolutely against University rules. It can result in dismissal from the University. This can also be the result of cheating on a test or tricking or bullying other students to do your work for you. <http://www.engr.sjsu.edu/fclegg/AcadInteg.htm>

University Policies

Per University Policy S16-9, university-wide policy information relevant to all courses, such as academic integrity, accommodations, etc. will be available on Office of Graduate and Undergraduate Programs' Syllabus Information web page at <http://www.sjsu.edu/gup/syllabusinfo/>

10. Online Exams

Testing Environment: Setup

- No earbuds, headphones, or headsets visible.
- The environment is free of other people besides the student taking the test.
- If students need scratch paper for the test, they should present the front and back of a blank scratch paper to the camera before the test.
- No other browser or windows besides Canvas opened.
- A workplace that is clear of clutter (i.e., reference materials, notes, textbooks, cellphone, tablets, smart watches, monitors, keyboards, gaming consoles, etc.)
- Well-lit environment. Can see the students' eyes and their whole face. Avoid having backlight from a window or other light source opposite the camera.
- Personal calculators - indicate if permitted.

Testing Environment: Scan

Before students can access the test questions, they are expected to conduct a scan around their testing environment to verify that there are no materials that would give the student an unfair

advantage during the test. The scan will include:

- the desk/work-space
- a complete view of the computer including USB ports and power cord connections
- a 360 degree view of the complete room

Students must:

- Remain in the testing environment throughout the duration of the test.
Keep full face, hands, workspace including desk, keyboard, monitor, and scratch paper, in full view of the webcam

Technical difficulties

Internet connection issues:

Canvas autosaves responses a few times per minute as long as there is an internet connection. If your internet connection is lost, Canvas will warn you but allow you to continue working on your exam. A brief loss of internet connection is unlikely to cause you to lose your work. However, a longer loss of connectivity or weak/unstable connection may jeopardize your exam.

Other technical difficulties:

Immediately email the instructor a current copy of the state of your exam and explain the problem you are facing. Your instructor may not be able to respond immediately or provide technical support. However, the copy of your exam and email will provide a record of the situation.

Contact the SJSU technical support for Canvas:

Technical Support for Canvas

Email: ecampus@sjsu.edu Phone: (408) 924-2337

<https://www.sjsu.edu/ecampus/support/>

If possible, complete your exam in the remaining allotted time, offline if necessary. Email your exam to your instructor within the allotted time or soon after.

Academic Dishonesty

Students who are suspected of cheating during an exam will be referred to the Student Conduct and Ethical Development office and depending on the severity of the conduct, will receive a zero on the assignment or a grade of F in the course. Grade Forgiveness does not apply to courses for which the original grade was the result of a finding of academic dishonesty.

GEOG. 170: Intro. to Mapping & GIS Fall 2020, Course Lecture Schedule

The course schedule is subject to change with fair notice and notifications will be sent out via Canvas or classroom postings.

Week	Date	Topics	Readings	Due
1	08/19	Intro., course logistics and content Intro. to GIScience and AGOL	Textbook Intro. and Chapter 10	
2	08/26	GIS/mapping foundations: scale and generalization	Textbook Chapter 2	
3	09/02	Intro. to research data: types, collection methods, unit, scale, and uses	Will be shared via Canvas	
4	09/09	Intro. to geospatial data: data representation in GIS	Chapter 4	
5	09/16	Data management/integration in GIS	Will be shared via Canvas	
6	09/23	GIS features composing a map layer	Chapters 1 and 6	
7	09/30	Intro. to real-time data mapping	Chapter 9	
8	10/07	Mapping language: map-design and visualization	Chapters 2, 3, and 6	<i>Assign case study</i>
9	10/14	Geospatial data processing (data selection and queries) <i>Guest Lecture: intro to web-mapping and its implications for Census 2020 outreach activities</i>	Will be shared via Canvas	<i>Discussion Forum: Project Idea</i>
10	10/21	Geospatial data analysis	Chapter 5	<i>Discussion Forum: Project Idea</i>
11	10/28	CASE STUDY PRESENTATIONS		<i>Case study due</i>
12	11/04	FINAL PROJECT PROPOSAL PRESENTATIONS		<i>Project Proposal</i>
13	11/11	<i>Open Lab: Final project progress</i>		
14	11/18	FINAL PROJECT PROGRESS PRESENTATIONS/GIS DAY		
15	11/25	Thanksgiving		
16	12/02	FINAL EXAM		
17	12/09	FINAL PROJECT PRESENTATIONS (Logistics to be shared)		
<i>Important note: your final project presentation will be built upon your proposal and progress presentations, so by the time of final project presentation, a major portion of your work should be done.</i>				

GEOG. 170: Intro. to Mapping & GIS Fall 2020, Course Lab Schedule

The course lab schedule is subject to change with fair notice and notifications will be sent out via Canvas or classroom postings.

Week	Date	Lab Topics Quizzes to be assigned	Due (Every wed. noon, before weekly lecture starts)
1	08/19	Intro and logistics, Setting up AGOL account	
2	08/26	<i>Open Lab:</i> Setting up AGOL Troubleshooting	
3	09/02	<i>Open Lab:</i> Setting up AGOL Troubleshooting <i>WQ #1:</i> Basics of working with data	
4	09/09	<i>Open Lab:</i> Setting up AGOL Troubleshooting <i>WQ #2:</i> Data conversion to geospatial	WQ #1
5	09/16	Short practice on data storage, management, and integration in AGOL <i>WQ #3:</i> Basics of attribute tables	WQ #2
6	09/23	Short practice on managing map layers in TOC <i>WQ #4:</i> Basics of map layers and features in GIS	WQ #3
7	09/30	Exploring real time mapping projects <i>WQ #5:</i> Implication of real-time data in GIS	WQ #4
8	10/07	Short practice on map design in AGOL <i>WQ #6:</i> visualization and map-design	WQ #5
9	10/14	Short Practice on geospatial data processing <i>WQ #7:</i> geospatial data analysis	WQ #6
10	10/21	<i>Open Discussion: Case Study and Final Project</i> Short Practice on geospatial data analysis	
11	10/28	CASE STUDY PRESENTATIONS	WQ #7
12	11/04	PROJECT PROPOSAL PRESENTATIONS	
13	11/11	<i>Open Lab: Final Projects Work</i>	
14	11/18	GISDAY and FINAL PROJECT PROGRESS PRESENTATIONS	
15	11/25	<i>Thanksgiving</i>	
16	12/02	FINAL EXAM	
17	12/09	FINAL PROJECT PRESENTATIONS (Logistics to be shared)	
<i>Important note: your final project presentation will be built upon your proposal and progress presentations, so by the time of final project presentation, a major portion of your work should be done.</i>			