

Course Syllabus

GEG 237: Web Mapping

Campus: Monroe Community College

Credits: 3 Undergraduate



Instructor Contact Information

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— What can I do if I have questions about this course or am struggling with the content?

I am available to help you with assignments and questions about this course on the days and times below. Feel free to drop in to my Zoom room at any of the listed times without an appointment. If none of the listed times work, please send me an email and I will work with you to find a time that does.

Zoom Office Hours:

Mon & Tue 9:30-11 am, Wed + Thur 10:30 am-11:30 am, or by appointment.

Course Prerequisites/Corequisite

GEG 130, or permission of the instructor

DRAFT Course Description - What is this course about?

This course is an introduction to Web-based GIS. Students will learn about the usefulness and application of Web GIS tools such as Google Earth, Google Maps, ArcGIS Online, Volunteered Geographic Information, and Map services (Mapbox, GISCloud). Students will become adept at storing and accessing spatial data in the cloud, practice developing Story Maps to communicate spatial data and show diverse perspectives, and learn how web mapping is key to mobile GIS applications such as field data collection locally, and globally. Students will be guided through a series of lectures and hands-on computer-based lab exercises, and will engage with an international business/organization. An end of a semester project will allow students to work on a project of their own design. Course material used are based upon the United States Department of Labor's Geospatial Technology Competency Model (GCTM) for entry level geospatial occupations including Geospatial or GIS Technicians or Technologists. Prior introductory GIS experience will be required to be successful in this course. This is a lab course. Two lecture hours.

DRAFT Course Outcomes - What will I learn in this class?

1. Apply web GIS tools such as Google Earth, Google Maps, ArcGIS Online, and Volunteered Geographic Information.
2. Discuss how web mapping differs from desktop GIS.
3. Explain how spatial data can be stored and accessed in the cloud.

4. Demonstrate interpersonal understanding, teamwork, and communication skills through increased knowledge and perspective of the geospatial workforce.
5. Analyze the pros and cons of various web GIS platforms.
6. Discuss how web mapping can be used to share stories to recognize other diverse perspectives.
7. Use existing templates or content building tools, such as Esri Story Maps, to build an online geospatial application.
8. Apply cartographic principles in online map design.
9. Design maps for publication to a web service.
10. Practice using web maps as a tool for emergency management.
11. Apply critical-thinking skills to solve global problems by using Web GIS tools in the development, management, completion, and evaluation of a comprehensive geospatial project tied to the UN Sustainable Development goals.

Required Materials - What do I need to buy for this class?

Reliable, high speed Internet capable environment with PC/Desktop/Laptop (not a tablet) with plenty of storage space (at least 10 GB) running Windows 10.

Access to GIS software through the virtual desktop.

Grading Breakdown Approximation*

Assignment Category	Grade Weight/ Point Distribution
Active Learning Exercises (ALE) <i>Short exercises. Answers can usually be found in the PowerPoint and/or videos. They are worth 5 points. The lowest will be dropped.</i>	15%
Labs <i>Written and in some cases video instructions are provided for each lab. If you need help, please let me know by Friday at noon. Most labs will need to be turned in electronically (e.g., dropbox in Blackboard). The lowest lab will be dropped. Labs include one mandatory Zoom meeting at the start of the semester.</i>	45%
Project <i>Student will use web mapping tools to create a story based project with a minimum number of maps to explore a topic of interest. See details in project rubric. Student projects will be assessed based on a rubric.</i>	25%
Exam	15%
Total	100%

*This is an approximation and will be adjusted if necessary.

Grading Scale

Label	Minimum Percent
A	92.5
A-	89.5
B+	86.5
B	82.5
B-	79.5
C+	76.5
C	72.5
C-	69.5
D+	66.5
D	62.5
D-	58

DRAFT Schedule*

Module	Topics and Assignments	Due Dates
1	<p>Topic: Course Information sheet (CIS) and Introducing the class</p> <p>Assignments: Active Learning Exercise (ALE) 1-1. All ALE's graded! ALE 1-2 (What is Web Mapping + ArcGIS Online to MapBox) Lab 01 – Part A</p>	End of day Sunday of week 1, with the exception of ALE 1-1 (see module 1)
2	<p>Topic: ArcGIS Story Map Essentials</p> <p>Assignments: Required Zoom** and Lab 1 – PartB</p>	End of day Sunday of week 2
3	<p>Topic: ArcGIS Story Maps Application</p> <p>Assignments: ALE 3, Lab 2 – Part A</p>	End of day Sunday of week 3
4	<p>Topic: ArcGIS Story Maps Application</p> <p>Assignments: ALE 4, and Lab 2 – Part B</p>	End of day Sunday of week 4
5	<p>Topic: Esri Dashboard & International Guest Speaker</p> <p>Assignments: ALE 5 and Lab 3</p>	End of day Sunday of week 5
6	<p>Topic: Esri Dashboard Operations (Live) & International partner</p> <p>Assignments: Lab 3 - B</p>	End of day Sunday of week 6
7	<p>Topic: ArcGIS Field Map App</p> <p>Assignments: Lab 4 – Part A</p>	End of day Sunday of week 7
8	<p>Topic: ArcGIS Field Map App</p> <p>Assignments: Lab 4 – Part B</p>	End of day Sunday of week 8

Module	Topics and Assignments	Due Dates
9	Topic: MapBox - Create a map with the Data Visualization Assignments: lab 5	End of day Sunday of week 9 Content portion of Exam Available Thur-Sunday
10	Topic: MapBox – Sheet Mapper (live updating map) with simple scripting of code Assignments: lab 6 + Project Introduction	End of day Sunday of week 10
11	Topic: Exam 1 + Project Plan Assignments: Take Home Mapping Exam + Concept portion of Exam + Project map methodology	End of day Sunday of week 11
12	Topic: MapBox – Add points to a Web Map (includes simple introductory coding) Assignments: project update and lab 7	End of day Sunday of week 12
13	Topic: Volunteered Geographic Information – Humanitarian Mapping Assignments: ALE project statement and lab 8	End of day Sunday of week 13
14	Topic: Insights? + Project Project Story outline Assignments: ALE 14 (project) + mini lab?	End of day Sunday of week 14
15	Topic: Project Assignments: ALE 15 (project related) Draft Story	End of day Sunday of week 15
16	Topic: Project Assignments: Final Project and self-evaluation Due!	TBA

*This schedule is an approximation and will be adjusted if necessary.

** One required Zoom session.

Important Dates:

—Classes begin January 24

—Winter Break Feb 19-25

—Spring Break April 16-24

—Last Day to Withdraw from the course with a Grade of 'W' (April 29)

—Final project due TBA

This course is extremely computer-intensive and you should be prepared to spend a considerable amount of time working on various assignments. **Plan your time accordingly right from the start; it is crucial for your success in this class!** Some labs may take much longer than others. **It is your own responsibility to keep your files organized and saved on the S-drive (or other cloud storage drive).** No files should be the stored on virtual PC. Remember: Save Early, Save Often!

Student Engagement Opportunities:

a. Direct instruction will be made possible through video recordings and live Zoom office hours.

b. Assessment and/or student feedback

Students will receive feedback during Zoom office hours, feedback on submitted ALE's, discussion responses, quizzes, and exams. The student needs to go to the grading center and click on their score to see feedback. Exams are not proctored. Students can expect to receive their grade for ALE's, labs, quizzes and exams three business days after the assignments due date.

c. Responding to questions about the content of a course or competency

The instructor will respond to student questions in most cases via email or via Zoom office hours. Instructor will respond to emails within 2 business days during the week (Mon-Fri) and 3 days over the weekend and other holidays.

d. Facilitation of group discussion regarding the content

It is recommended that the student asks questions via email as well as live Zoom office hours either individually or in small groups. Students can also access Blackboard's "Ask a Question" to discuss with classmates about course content/materials, but other students are under no obligation to respond to classmates. You are encouraged to use CircleIn:

<https://insights.circleinapp.com/login>

e. Other instructional activities approved by the institution's/program's accrediting agency

One lab provides students with the opportunity to go outside and collect basic data. This can also be completed using technology from a computer.

Campus Policies**Online Attendance Policy**

You should login within the first three days of the start of the online class. Each week's assignments, quizzes, and forum topics will be posted on Monday and should be completed by the following Sunday night. It is your responsibility to attend (login) class online at least two times a week. Expect to work at least 3 hours per week in the class! If you do not login to the course for more than a week, it will likely greatly impact your grade. Regular class attendance is one of the most important contributing factors to your academic success. Missing classes may have an academic consequence as outlined in your course syllabus. In addition, failure to attend class may impact scholarships, grants, loans, veteran affairs status, satisfactory academic progress (SAP), participation on athletic teams, eligibility to live in campus housing, and, most significantly, financial aid assistance.

Late Assignments Policy

A half point per day is taken off each day an ALE is late, and 1 pt per day is taken off a lab. Late assignments may not be accepted after the exam on that material has been given.

ADA/504 Compliance Statement

MCC provides a mainstreamed learning environment for students who identify themselves as having a disability with the Services for Students with Disabilities (SSD) office. In accordance with the Americans With Disabilities Act and Section 504 of the Rehabilitation Act, the College ensures that admission, services, activities, facilities and academic programs are accessible to and usable by qualified students with disabilities. Reasonable accommodations are available to students who self-identify with the SSD office of their needs and must provide the appropriate documentation for services. Students who are deaf or hard of hearing requesting interpreting services on any campus please contact the Brighton SSD office at 585.292.2140. Please view details here: <https://www.monroecc.edu/etsdbs/mccatpub.nsf/Online%20Catalog%20by%20Title/services-for-students-with-disabilities?OpenDocument>

Academic Honesty Policy

MCC's academic honesty policy will be followed: In the academic process, it is generally assumed that intellectual honesty and integrity are basic responsibilities of any student. All students who are involved shall be considered equally guilty of the transgression (Monroe Community College Catalog and Student Handbook). Therefore, cheating and/or plagiarism may result in disciplinary action.

Copyright Policy

Neither audio nor video recordings of the instructor or the class may be made without the explicit prior written permission of the instructor.

Withdrawal Policy

If a student determines that he/she will be unable to complete courses in which he/she is currently enrolled, it is the student's responsibility to initiate procedures leading to a formal withdrawal ("W") in order to avoid a failing ("F") grade. Students who need assistance in completing this process may contact the Registration and Records Office.

Campus Policies

Students are required to read and acknowledge College-wide policies each term. They are found in "College-Wide Policies" on Blackboard under Student/Courses.

