

Map Our Changing World (CM)

GEOG - 1800 501

Course Description

Social and environmental changes are occurring at alarming rates. Geographic data and mapping technology has revolutionized how we identify, quantify, analyze, interpret, and communicate change. Applying mapping technology has become an essential decision-making skill set in visualizing data, understanding and explaining complex situations, and communicating shared meaning.

Semester: All

Course Student Learning Outcomes

- Apply the use of geographic data, geographic inquiry, mapping technology, and other geographic representations and technologies to create, construct, analyze, and communicate information.
- Identify how geographic inquiry can be used to communicate shared meaning using cartographic principles within the discipline.
- Analyze how mapping technology is used to communicate spatial information visually and with other multimodal technologies such as web-maps, mobile apps, and story maps.
- Analyze the complexities and challenges of communicating uncertainty in geographic data.
- Determine how implicit and explicit biases and assumptions occur when communicating geographic data and information.
- Evaluate how mapping technology is used to compare, interpret, analyze, and communicate physical or cultural environments using cartographic principles, geographic inquiry, and scientific reasoning.

- Explain how critical cartography theory critiques how mapping technology has been used to maintain social, economic, and geopolitical power structures.
- Analyze the spatial organization of people, places, and environments on Earth's surface.

Course Prerequisites

- Basic computer literacy required.
- A desire to learn!

Engagement Plan

- I will respond to email within 2 days. I will offer feedback on major assignments within 2 days. The best way to contact me is via the Canvas Inbox, as I will prioritize this email over other modes of communication.

Required Text or Materials

Title: Introduction to Geospatial Technologies

ISBN: 9781319436599

Authors: Bradley A. Shellito

Publisher: MacMillan

Publication Date: 2023

Edition: 3rd or newer

For more information on textbook accessibility, contact Accessibility & Disability Services at ads@slcc.edu.

General Education Information

CM

This course fulfills the above requirement for the General Education Program at Salt Lake Community College. It is designed not only to teach the information and skills required by the discipline, but also to develop vital workplace skills and to teach strategies and skills that can be used for life-long learning.

General Education courses teach basic skills as well as broaden a student's knowledge of a wide range of subjects. Education is much more than the acquisition of facts; it is being able to use information in meaningful ways in order to enrich one's life.

While the subject of each course is important and useful, we become truly educated through making connections of such varied information with the different methods of organizing human experience that are practiced by different disciplines. Therefore, this course, when combined with other General Education courses, will enable you to develop broader perspectives and deeper understandings of your community and the world, as well as challenge previously held assumptions about the world and its inhabitants.

Assignment Schedule

| Due Date | Assignment Name | Assignment Type | Points |
|----------|---|-----------------|--------|
| | Introduce Yourself | Discussion | 0 |
| 8/27/25 | 1.1 Assignment ArcGIS Online Accounts | Assignment | 5 |
| 9/2/25 | 1.2 Assignment ArcGIS Online Basics | Assignment | 20 |
| 9/2/25 | 1.3 Assignment Get Information from a GIS Map | Assignment | 20 |
| 9/2/25 | 1.4 Quiz It's a Geospatial World Out There | Quiz | 10 |

| Due Date | Assignment Name | Assignment Type | Points |
|----------|---|-----------------|--------|
| 9/12/25 | 2.1 Assignment Explore an Interactive Map | Assignment | 5 |
| 9/12/25 | 2.2 Assignment Explore an Interactive App | Assignment | 5 |
| 9/12/25 | 2.3 Assignment Explore a 3D App | Assignment | 5 |
| 9/12/25 | 2.4 Assignment Explore Arcade Expressions in a Web Map | Assignment | 5 |
| 9/12/25 | 2.5 Assignment Explore Paris with ArcGIS Online | Assignment | 5 |
| 9/12/25 | 2.6 Quiz Where in the Geospatial World Are You? | Quiz | 10 |
| 9/23/25 | 3.1 Assignment The Power of Maps | Assignment | 10 |
| 9/23/25 | 3.2 Assignment Make a Map of China | Assignment | 10 |
| 9/23/25 | 3.3 Assignment Map the Highest Mountain | Assignment | 10 |
| 9/23/25 | 3.4 Assignment Convert a List of Historic Places into a Map | Assignment | 10 |

| Due Date | Assignment Name | Assignment Type | Points |
|----------|--|-----------------|--------|
| 9/23/25 | 3.5 Quiz Getting Your Data to Match the Map | Quiz | 8 |
| 9/26/25 | Exam 1 | Quiz | 50 |
| 9/30/25 | 4.1: Finding Your Location with GPS | Quiz | 10 |
| 9/30/25 | 4.2 Oversee Snowplows in Real-Time | Assignment | 10 |
| 9/30/25 | 4.3 Location Privacy | Discussion | 15 |
| 10/10/25 | 5.1 Assignment Access and Prepare Data for Mapping | Assignment | 5 |
| 10/10/25 | 5.2 Assignment Map and Analyze Food Access | Assignment | 10 |
| 10/10/25 | 5.3 Assignment Monitor Malaria Epidemics | Assignment | 10 |
| 10/10/25 | 5.4 Assignment Mapping Hurricanes | Assignment | 10 |
| 10/10/25 | 5.5 Assignment Manage Data | Assignment | 10 |
| 10/10/25 | 5.6 Quiz Geospatial Data and GIS | Quiz | 10 |
| 10/21/25 | 6.1 Assignment Solve a Spatial Problem | Assignment | 5 |

| Due Date | Assignment Name | Assignment Type | Points |
|----------|---|-----------------|--------|
| 10/21/25 | 6.3 Assignment Map a Historic Cholera Outbreak | Assignment | 5 |
| 10/21/25 | 6.4 Assignment Visualize Inequity in Toxic Exposure Risk | Assignment | 10 |
| 10/21/25 | 6.5 Assignment Investigate and Share Election Results | Assignment | 10 |
| 10/21/25 | 6.6 Assignment Map Voter Data to Plan Your Campaign | Assignment | 25 |
| 10/21/25 | 6.7 Quiz Using GIS for Spatial Analysis | Quiz | 10 |
| 10/28/25 | 7.1 Assignment Symbolize by Size | Assignment | 5 |
| 10/28/25 | 7.2 Assignment Create a Policy Map to Address Health Conditions | Assignment | 10 |
| 10/28/25 | 7.3 Assignment Map and Chart Data | Assignment | 15 |
| 10/28/25 | 7.4 Quiz Using GIS to Make a Map | Quiz | 10 |
| 11/4/25 | 8.1: Getting There Quicker with Geospatial Technology | Quiz | 10 |
| 11/4/25 | 8.2: Visualizing Change Over Time | Assignment | 10 |

| Due Date | Assignment Name | Assignment Type | Points |
|----------|---|-----------------|--------|
| 11/4/25 | 8.4: Location-Based Tracking and Digital Privacy | Discussion | 10 |
| 11/7/25 | Exam 2 | Quiz | 50 |
| 11/11/25 | 9.1: Remotely Sensed Images from Above | Quiz | 10 |
| 11/11/25 | 9.2: Image Interpretation | Quiz | 30 |
| 11/18/25 | 10.1: How Remote Sensing Works | Quiz | 10 |
| 11/18/25 | 10.2: Color Composite Imagery | Quiz | 0 |
| 12/2/25 | 11.1: Images from Space | Quiz | 10 |
| 12/2/25 | 11.2: Getting Started with Imagery | Assignment | 10 |
| 12/2/25 | 11.3 Assignment Reveal Lake Shrinkage Due to Severe Drought | Assignment | 10 |
| 12/11/25 | 12.1: Earth's Climate and Environment from Space | Quiz | 10 |
| 12/11/25 | 12.2: Using Global Imagery Basemaps | Assignment | 10 |
| 12/11/25 | 12.3: Living Atlas of the World | Assignment | 10 |
| 12/11/25 | 12.4: Visualizing Fire Damage | Assignment | 10 |

| Due Date | Assignment Name | Assignment Type | Points |
|----------|--|-----------------|--------|
| 12/11/25 | 12.5: Monitoring Fracking | Assignment | 10 |
| 12/11/25 | 12.6: Assessing Hurricane Maria Damage | Assignment | 10 |
| 12/11/25 | Exam 3 | Quiz | 50 |

Brief Description of Assignments/Exams

Assignments

Each assignment is designed to analyze the spatial and temporal patterns of the physical and cultural environments. Some of the activities will be using the new Google Earth

Other assignments will have you using a web-based geographic information system, called ArcGIS Online

Links to an external site.. The assignments are not timed and in quiz form, for you to submit your answers easily.

Exams

A total of 3 exams will be given for the course. The exams will consist of 50 randomly selected questions. You will have 75 minutes to complete the exam and will be allowed to take the exam twice. The higher of the two scores will count for your score. Those exams will be completed within Canvas.

Grading Scale

GradeRange

| | |
|----|-------------------|
| A | 100 % to 94.0% |
| A- | < 94.0 % to 90.0% |
| B+ | < 90.0 % to 87.0% |

| | |
|----|-------------------|
| B | < 87.0 % to 84.0% |
| B- | < 84.0 % to 80.0% |
| C+ | < 80.0 % to 77.0% |
| C | < 77.0 % to 74.0% |
| C- | < 74.0 % to 70.0% |
| D+ | < 70.0 % to 67.0% |
| D | < 67.0 % to 64.0% |
| D- | < 64.0 % to 61.0% |
| F | < 61.0 % to 0.0% |

How to Navigate to Canvas

Online Tutoring

Students at SLCC have access to online tutoring through Canvas. From your Canvas course click Online Tutoring in the course navigation and follow the steps to set up an appointment. If this is your first time using the Online Tutoring we recommend you click "Take a Tour" to familiarize yourself with the service.

Note that students only receive 480 minutes of tutoring time each semester. After that we encourage you to use the resources found through this link:

<https://www.slcc.edu/tutoring/index.aspx>

If you have any additional questions reach out to elarningsupport@slcc.edu.

Institutional Policies

As members of our academic community, we would like to invite you to review the Institutional Syllabus which covers important policies and procedures. This document contains important links for students on the code of student rights and responsibilities, academic integrity, and grading policies, Title IX and other important acknowledgements. By familiarizing yourself with this information, you can help us create a safe and respectful environment for everyone.

For more information, navigate to the Institutional Policies tab on the [Institutional Syllabus](#) page.

[Learning Support and Tutoring Services](#)

We are pleased to offer a range of tutoring and learning support services to help you achieve your academic goals. Whether you need assistance with a specific subject or want to improve your study skills, you have many options for tutoring or other support.

To learn more about the services we offer and how to access them, visit the [Institutional Syllabus](#) page under the Tutoring and Learning Support tab. We encourage you to take advantage of these resources to help you succeed in your studies. If you have any questions or would like to schedule a tutoring session, please don't hesitate to reach out to us. We are here to support you in any way we can.

[Advising and Counseling Support Services](#)

At our institution, we are committed to supporting your academic and personal growth. That's why we offer a range of advising and counseling services to help you navigate the challenges of college life. To learn more about the resources available to you and how to access them, visit the [Institutional Syllabus](#) page under the Advising and Counseling Support Services tab. Our advising team and the support centers across campus are here to support you in achieving your goals and overcoming any obstacles you may face.

[Student Academic Calendar](#)

As students you should be aware of all important dates in the semester, such as the day that courses begin and end, as well as the drop date and the last day to withdraw. To learn more about those dates, navigate to the Student Academic Calendar below:

[SLCC Student Academic Calendar](#)