San José State University
College of Social Sciences, Department of Urban and Regional Planning
GEOG107: Mapping the World, Spring 2022

Course and Contact Information

Instructor:	Dr. Bo Yang
Office Location:	WSQ 113-A
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Email:	Bo.Yang02@sjsu.edu
Office Hours:	Tuesdays 2:30 PM - 4:30 PM on Zoom and by appointment
Class Days/Time:	Online (no scheduled meeting days or times)
Classroom:	Canvas
Prerequisites:	Passage of the Writing Skills Test (WST) or ENGL/LLD 100A with a C or better, completion of Core General Education, and upper division standing (60 units). Completion of, or co-registration in, 100W is strongly recommended
GE/SJSU Studies Category:	Area R: Earth & Environment
Units	3

Course Description

Scientific understanding of the physical systems and processes of Earth as explored through geographical data and online mapping, and an introduction to spatial analysis through online GIS. Comprehensive survey of all the regions studied in geography: North and South America, Africa, Europe, Asia, Australia and the pacific. In this survey of diverse global environments students will create interactive web applications and story maps using online ArcGIS Online to visually communicate the interrelationships between humans and their environment.

Course Format

This course is taught entirely online in an asynchronous format which means there are no scheduled meetings on Zoom. Students are required to have an electronic device (laptop, desktop or tablet) with internet access. SJSU has a free equipment loan program available for students. New course modules can be found on the Canvas Learning Management System at http://sjsu.instructure.com each Monday morning. Students are responsible for regularly checking the website for announcements and updates.

Course Goals

This course emphasizes neogeography to survey Earth's contrasting landscapes and human-environmental interactions by world region. Students will explore the digital Earth and conduct research and mapping to communicate stories of resource extraction, scarcity, insecurity, and environmental degradation while also celebrating innovation, conservation, and cultural authenticity. Course readings, multimedia, assignments, and online discussions provide deeper understanding of the complex interrelationship between humans and their

world while honing critical, relational, and contextual thinking through maps. By the end of the course a student can expect to understand the use of maps and geographic data to explain themes and geographic patterns, and be able to understand the complexity of regional and global environmental and socioeconomic problems.

GE Learning Outcomes (GELO)

SJSU Studies Area R students will cultivate knowledge of the scientific study of the physical universe or its life forms. Students will understand and appreciate the interrelationship of science and human beings to each other.

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

- *GELO 1. Demonstrate an understanding of the methods and limits of scientific investigation.*

  The story map, midterm, and assignments are designed to assess GELO 1. Assignment #2 specifically addresses the limits and assignment 3 demonstrates the methods of scientific investigation.

- *GELO 2. Distinguish science from pseudo-science*

  The virtual fieldtrip, webinars, and assignments assess GELO 2. Assignment #7 distinguishes science from pseudo-science.

- *GELO 3. Apply a scientific approach to answer questions about the earth and environment.*

  The story map, map critiques, final exam, and assignments are designed to assess GELO 3. Assignment #3 applies a scientific approach to answer questions about the earth and environment.

Required Materials

This course takes advantage of two free digital textbooks.

1) Burgalee, Royal *World Regional Geography: People, Places and Globalization*. Saylor
2) Guo, Haudong, Goodchild, Michael, and Annoni, Allesandro 2020. *Manual of Digital Earth.* Springer

Technology

Students will use online software and an app this term
1) An ESRI ArcGIS Online account login will be provided to your SJSU email during the first week of class. You can login the SJSU ArcGIS online portal https://sjsugis.maps.arcgis.com/ using your SJSU 9-digit ID. ArcGIS Online is a software that is accessible via the internet across platforms and devices. ArcGIS Online also provides the Story Mapping template to create the term project. http://arcgisonline.com.
2) Download MapSwipe. It is a mapping 'game' for phones and tablets where users identify roads and structures in satellite imagery. Playing MapSwipe provides valuable data for humanitarian and emergency response efforts across the Earth. http://mapswipe.org
3) Google Earth will be used frequently to explore the world regions.

Course Requirements and Assignments

SJSU classes are designed such that to be successful, it is expected students will spend, for each unit of credit, a minimum of 45 hours over the length of the course (normally three hours per unit per week) for instruction, preparation/studying, or course related activities, including but not limited to internships, labs, and clinical practica. Other course structures will have equivalent workload expectations as described in the syllabus.

Learning Modules

Each learning unit will be open to you at the starting date as shown on the course schedule, and remain available to you by the end of the course. However, the quizzes and assignments in each module must be completed by the given due time for full points. Assignments submitted after the due time will be penalized 10% per day late, and will not be accepted for evaluation after seven days. Please note this policy and arrange your time to study the modules and take the assignments accordingly.

For each module, you should go through the read of the corresponding chapter in the textbook, and explore the story maps or Google earth provided to you in the supplemental material. Each module is finished by a short **quiz** to check your understanding of the material. These module quizzes will be multiple choice questions and will not be timed. Questions of the module quizzes are aimed to check if you achieved these learning objectives.

Assignments

1) Active online participation means completing all readings, regional explorations, and course **assignments** provided in the weekly learning module (GELO 1, 2, 3). Assignments are described on the course scheduled but know that more detailed instructions will be announced each Monday on Canvas in a new module. Frequent online engagement with this course is expected in order to be successful.

2) Exposure to and engagement with the larger geography discipline is important for formulating a breadth of spatial understanding. As such a **virtual fieldtrip** to the Stanford University David Rumsey Map Library and two **guest lecture webinars** have been assigned and will have prompts requiring 500-word written essay response; both webinars will be recorded and posted to Canvas.

3) Each student will select a regional Earth and Environment topic of interest that can be digitally mapped (choices may range from geomorphology, climate change, biogeography, oceanography, ecological, conservation, hydrology or water quality, resource extraction, conservation, land use, etc) and will work over the term to create a compelling and original **story map** using ArcGIS Online**.** Effective cartographic visualization is an imperative skill in geography that can be applied to nearly every discipline and industry. Creating a powerful story means weaving factual scientific data with map layers, narratives, [real time or recorded] multimedia, imagery and sounds. When completed properly these stories contribute to a larger digital globe where audiences can traverse the Earth's landscape in ways no paper map or atlas allows. Students will peer-review and critique classmate story map submissions each week and be expected to incorporate feedback into the final map.

Midterm

Google Earth, Google Street View, and Google Maps are incredible resources for understanding the Earth but posting imagery with coordinates online can be controversial. In a written essay argue whether storing this immense visual and spatial data record is beneficial or invades privacy (1000 words).

Final Project

The final project of a comprehensive ArcGIS online story map replaces a traditional term paper but still requires considerable research and writing on a regional phenomenon worthy of greater public attention. At a minimum of 3,000 words, properly cited using APA format, the story map project is a substantial grade in this course (40% of the total). Students may only use reputable, high-quality GIS layers created by government agencies, nonprofits, academic departments and libraries, and the ArcGIS Online Living Atlas in their creations. These compiled sources must be credited and captioned appropriately to avoid plagiarism.

Extra Credit Opportunity

Throughout the course, I may offer extra credit opportunities to students such as writing a short reaction paper about a topic, or participating in a discussion forum etc. Such opportunities will be announced on blackboard and sent to you through email.

Grading Information

Assignments	Points Possible	Assessment
Twelve (10) Assignments	200 (20-each)	GELO 1, 2, 3
Ten (10) Quizzes	100 (10-each)	GELO 1
Six (6) Story Map Critiques	120 (20-each)	GELO 1, 2, 3
Two (2) Geography Webinar Events	80 (40-each)	GELO 2
Midterm Exam	100	GELO 1
Revised Story Map Submission	100	GELO 1, 2, 3
Final Story Map Submission	300	GELO 1, 2, 3
TOTAL	**1000**	

SCALE:

Grade	Points	Percentage
A plus	970 to 1000	97 to 100%
A	930 to 969	93 to 96%
A minus	900 to 929	90 to 92%
B plus	860 to 899	86 to 89 %
B	830 to 859	83 to 85%
B minus	800 to 829	80 to 82%
C plus	760 to 799	76 to 79%
C	730 to 759	73 to 75%
C minus	700 to 729	70 to 72%
D plus	660 to 699	66 to 69%
D	600 to 659	60 to 66%
D minus	500 to 599	50 to 59%
F	Less than 500	<=50%

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. In keeping with this policy, and to making grading responsive. All assignments are due as stated on the Course Schedule and Canvas. Please save all your work until after you have checked your final course grade.

Grading Information for GE

Passage of the Writing Skills Test (WST) or ENGL/LLD 100A with a C or better (C- not accepted), and completion of Core General Education are prerequisite to all SJSU Studies courses. Completion of, or co-registration in, 100W is strongly recommended. A minimum aggregate GPA of 2.0 in GE Areas R, S, & V shall be required of all students. Area R courses have a minimum of 3,000 words of writing in a language and style appropriate for the discipline.

Academic Dishonesty

Plagiarism in any form is 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. unacceptable and will merit a 0 for the assignment. Students who are suspected of cheating during an exam will be

University Policies

Per University Policy S16-9 *(http://www.sjsu.edu/senate/docs/S16-9.pdf)*, relevant university policy concerning all courses, such as student responsibilities, academic integrity, accommodations, dropping and adding, consent for recording of class, etc. and available student services (e.g. learning assistance, counseling, and other resources) are listed on Syllabus Information web page (http://www.sjsu.edu/gup/syllabusinfo), which is hosted by the Office of Undergraduate Education. Make sure to visit this page to review and be aware of these university policies and resources.

GEOG107 Mapping the World, Spring 2022

This schedule is subject to change with fair notice so please refer to Canvas often for announcements.

Module	Topics, Readings, Assignments
Module 0:	GETTING STARTED Read the syllabus Familiarize yourself with the course Canvas system Setup your AcrGIS Online software accounts and apps Signup for a Story Map Topic Assignment 1: Introductions and learn to use the discussion board
Module 1:	REGIONAL GEOGRAPHY BASICS Read: Saylor Chapter 1 – Introduction to the World Read: Gou Chapter 1 – Understanding Digital Earth Get acquainted with interactive story maps as an educational, visual communication, and spatial literacy tool. Explore: get acquainted with interactive story maps as an educational, visual communication, and spatial literacy tool. Assignment 2: Explore the ESRI ArcGIS Online Story Map Gallery and write a 250-summary explaining why this was a captivating story map and discuss the limits of scientific investigation in the case.
Module 2:	EUROPE Read: Gou Chapter 2 Read: Saylor Chapter 2 Review Summary Slides about Europe, complete quiz 1 Assignment 3: ArcGIS Online assignment 1
Module 3:	RUSSIA Read: Saylor Chapter 3 Read: Gou Chapter 3 Review Summary Slides about Russia, complete quiz 2

Module	Topics, Readings, Assignments
	Google Earth exploratory trip Assignment 4: ArcGIS Online assignment 2
Module 4:	MIDDLE AMERICA & THE CARRIBEAN Read: • Saylor Chapter 5 • Gou Chapter 4 – Satellite Navigation • Zook et al. Volunteered Geographic Information and Crowdsourcing a Disaster Relief: A Case Study of the Haitian Earthquake (linked to Canvas) Review the Summary Slides about Middle America & the Caribbean, complete quiz 3 Google Earth exploratory trip Assignment 5: ArcGIS Online assignment 3 Map Critique 1: Write a 300-word critique about one of Story Maps.
Module 5:	SOUTH AMERICA Read Saylor Chapter 6 Read Guo Chapter 14 – Digital Earth for Climate Change Review the Summary Slides about South America, complete quiz 4 Google Earth exploratory trip Assignment 6: Virtual Fieldtrip to the David Rumsey Map Library at Stanford University. Map Critique 2: Write a 300-word critique about one of the Story Maps.
Module 6:	GEOTECHNOLOGY & PSEUDOSCIENCE Read: Guo Chapter 12 – Social Media and Social Awareness Use MapSwipe to crowdsource features for future humanitarian mapping efforts Webinar 1: Attend the webinar (live or recorded) SJSU Center for Spatial Analytics and Data Visualization (SAVI) hosts two speakers each term. Assignment 7: Science vs. pseudo-science
Module 7:	SUB-SAHARAN AFRICA Read

Module	Topics, Readings, Assignments
	• Jean, Neal et al. Combining satellite imagery and machine learning to predict poverty • Hebblewhite, Mark and Daniel Haydon. Distinguishing technology from biology: a critical review of the use of GPS telemetry data in ecology • Saylor Chapter 7 Google Earth exploratory trip Review Sub-Saharan Summary Slides, complete quiz 5 Map Critique 3: Write a 300-word critique about one of Story Maps.
Module 8:	MIDTERM Submit your midterm exam essay
Module 9:	NORTH AFRICA, SOUTHWEST ASIA & CENTRAL ASIA Read Saylor Chapter 8 Read Guo Chapter 13 – Digital Earth for Sustainable Development Review the Summary Slides, complete quiz 6 Guest lecture Google Earth exploratory trip Map Critique 4: Write a 300-word critique about one of the Story Maps.
Module 10:	SOUTH ASIA Read Saylor Chapter 9 Read Guo Chapter 7 – Geospatial Information Visualization and Extended Realities Read Gillespie et al. Finding Osama bin Laden: An application of biogeographic theories and satellite imagery. Guest Lecture Review the South Asia Summary Slides, complete quiz 7 Google Earth exploratory trip Assignment 8: ArcGIS Online Assignment4. Map Critique 5: Write a 300-word critique about one of the Story Maps.
Module 11:	NORTH AMERICA Read Saylor Chapter 4 Read Guo Chapter 17 – Digital Heritage

Module	Topics, Readings, Assignments
	Guest Lecture Review the North American Summary Slides, complete quiz 8 Google Earth exploratory trip Assignment 9: ArcGIS Online Assignment 5.
Module 12:	EAST ASIA & SOUTHEAST ASIA Read Saylor Chapters 10 and 11 Read Guo Chapter 22 – Digital Earth in China Review the Summary Slides, complete quiz 9 Guest Lecture Google Earth exploratory trip Map Critique 6: Write a 300-word critique about one of the Story Maps.
Module 13:	GEOGRAPHY AWARENESS WEEK Celebrate geography as a fascinating and varied academic discipline by participating in SJSU campus events! Assignment 10: View and Vote on the SJSU Student Story Map showcase. What were the cartographic standards which made this map compelling? (300-words) Webinar 2: Watch the SJSU SAVi talk speaker. Submit a list of new factual information gained from the speaker
Module 14:	AUSTRALIA, OCEANIA & ANTARCTICA Read Saylor Chapters 12 and 13 Read Guo Chapter 24 – Digital Earth Education Review the Summary Slides, complete quiz 10 Google Earth exploratory trip
Final Draft of your Story Map Due	
Final:	FINAL EXAM Submit your Final Draft of your Story Map