

San José State University

COURSE OUTLINE: Geography 186, Field Study in Physical Geography

Course Number: GEOGRAPHY 186
Course Title: Field Study in Physical Geography
Year: Spring 2020
Course Schedule: Mondays 1:30 pm – 4:15 p.m.
Location: WSQ 113

Instructor: Dr. Aharon de Grassi
Office: Washington Square 111
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Course Format:

The course will involve a mixed format including lecture, class discussion, individual field research work, and collective field research work.

Course Requirements:

Attendance	10%
Class Participation	10%
Mid-Term Exam	20%
Assignments	30%
Individual Project	40%

Readings:

Required Textbook: There is no single textbook for the class. Individual PDFs will be available on Canvass. We will be readings a few chapters from the following text, and I would encourage students interested in following up to explore the book further: Montello, Daniel R., & Sutton, Paul C. (2012). *An introduction to scientific research methods in geography*. Thousand Oaks: Sage Publications.

Short Readings: Most weeks will also have a short journal article, definition, newspaper or magazine article, or book chapter to read. Additional short pieces may be handed out in class or posted on Canvas as the semester proceeds.

Optional:

For further clarification of ideas, terms, theories, and perspectives, you should also actively consult the various dictionaries, guides and encyclopedias available. These often have different coverage and quality, so it can be useful to consult more than one.

Clifford et al (2016) *Key Methods in Geography*, Routledge.

Mayhew (2015) *A Dictionary of Geography*, [online](#).

Warf, Barney, ed. (2010) *Encyclopedia of Geography*, Sage
<http://sk.sagepub.com.libaccess.sjlibrary.org/reference/geography>

Course Description (from Catalog):

Field research methods in physical geography, including biogeography, hydrology, soils, geomorphology, and human-environment studies. Mapping, GPS, landscape remote sensing, and field measurements. Local field trips and projects tailored to class interests.

Detailed Course Description:

This course engages student in the process of organizing and implementing a research project in physical geography. Specifically, students will investigate patterns of temperature, humidity, wind speed, or other physical and social attributes. Handheld devices and field notebooks will be used to gather data at specific locations and times. Students will investigate a range of topics central to physical geographic field work, including the effects of sampling schemes, instrumental constraints, biases, uncertainties, and hypotheses.

Course Objectives:

- 1) Demonstrate and analyze knowledge of the facts, processes, and methods of field research in Physical Geography.
- 2) Demonstrate knowledge and analyze of the facts and methods of map and imagery interpretation.
- 3) Prepare written and verbal presentations that report their geographical discoveries through analyses of appropriate documents, primary data, and/or archival data.in professional/technical styles.
- 4) Prepare maps and other geographical graphics that report their discoveries through analyses of appropriate documents, primary data, and/or archival data.
- 5) Explain the spatial connectivity of human societies and environments at local, regional and global scales.
- 6) Explain that solving geographical problems is based on experiential analyses of primary and archival data through the methods of the sciences and social sciences.
- 7) Appreciate that geography as an academic and professional discipline offers important knowledge as well as analytical techniques which have application in solving important human problems.

Detailed Course Requirements, Grading and Evaluation

Studying geography effectively requires in-class discussion and interaction, as well as hands-on learning-by-doing activities. As a result, I have tried to structure the course requirements and grade distribution accordingly.

As is SJSU policy, success in this course is based on the expectation that 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.

Formatting

All assignments and texts should be submitted formatted to double space, 12-point font, Times New Roman, 1-inch margins.

Exam

Mid-term exam – Take-home exam. You will choose two sets of exam questions from four. Questions will be topic specific and require detailed knowledge of a particular lecture area. Part A will be composed of short answer-type questions. Part B will be an essay-type question. There will be questions on the lecture material, and the readings, as well as some questions that are about both a combination of the readings and the lecture material.

Assignments

The assignments are designed to ensure comprehension of reading and lecture, and also to assist with timely preparation of the final research project. The assignments may involve short reflections on readings, responses to specific prompts, drafts of project proposals, and drafts of the final research project report. Due dates are listed on the schedule for several important assignments (5% each), though smaller assignments may be added also.

Individual Research Project

Throughout the course, you will be working on a research project, with a final report due **May 19th**. The paper must be at least 10 pages (excluding tables, pictures, and references). The project should involve clear links between (1) topic/question, (2) data to answer that question, (3) methods to acquire that data, and (4) equipment utilized for those methods.

Two or three students may work together on a single project, however the requirement remains of at least 10 pages per person AND collective papers must be cohesive (not separately written sections stitched together), and will receive a single grade.

You will share the conclusions of your project with the class in a brief (5-10 minute) presentation, which will count towards your participation grade.

Participation, Exercises & Attendance

These are short individual or group discussions/exercises and learning activities. Students are expected to attend all the classes and to arrive on time. Your active participation in discussion is a key component of this course. The weekly schedule is condensed, and consequently it is crucial

that students keep up with the concepts and material in the course – discussion is one of the most important ways to do this because it allows students to clarify, compare, and deepen their understanding.

Course Etiquette & Policy on Devices in Class

Allowed:

- ✓ Using your computer if you sit in the back row
- ✓ Taking class notes on your computer
- ✓ Consulting readings on your computer

NOT Allowed:

- × Using your computer for something not directly related to the class discussion
- × Recording audio/video without explicit permission
- × Having your cell phone out or visible on the table
 - × no texting
 - × no using your cell phone
{unless you are demonstrably using it briefly to immediately address a specific question or issue in class}

If you are using your computer for anything other than taking notes, it will affect your participation grade. You will only get an initial warning, a final warning, and then will not be allowed to use devices for the remainder of the course.

Please be respectful and considerate with your fellow students and your classroom community – if you are doing non-class activities then you will distract people sitting nearby and diminish their learning. Also respect yourself and give yourself a break from the internet – university courses are unique valuable, once-in-a-lifetime opportunities to think deeply, challenge yourself, and learn with your fellow students.

Grading and Evaluation

Grading Policy

There is no “curve” for this course. Pluses and minuses are given. You receive the grade you earn through your own work and the effort you put into the class. Course grades will be determined using the following point components:

<u>Requirement</u>	<u>Percentage of Grade</u>
Attendance	10%
Class Participation	10%
Mid-Term Exam	20%
Assignments	30%
Individual Project	30%
Total	100%

Grade Scale

Percent	Letter Grade
97-100	A+
94-96	A
90-93	A-
87-89	B+
84-86	B
80-83	B-
77-79	C+
74-76	C
70-73	C-
60-69	D
<60	F

Dropping and Adding

Students are responsible for understanding the policies and procedures about add/drop, grade forgiveness, etc. Refer to the current semester's Catalog Policies section at <http://info.sjsu.edu/static/catalog/policies.html>. Add/drop deadlines can be found on the current academic year calendars document on the Academic Calendars webpage at http://www.sjsu.edu/provost/services/academic_calendars/. The Late Drop Policy is available at <http://www.sjsu.edu/aars/policies/latedrops/policy/>. Students should be aware of the current deadlines and penalties for dropping classes.

Information about the latest changes and news is available at the Advising Hub at <http://www.sjsu.edu/advising/>.

University Policies

“University Policies: Office of Graduate and Undergraduate Programs **maintains university-wide policy information relevant to all courses, such as academic integrity, accommodations, etc.”**

You may find all syllabus related University Policies and resources information listed on GUP's Syllabus Information web page at <http://sjsu.edu/gup/syllabusinfo/>

Accommodation

If you need special arrangements, please send me an email or speak with me privately after class or in office hours. It is important to speak with me sooner rather than later in order to be able to accommodate you in an appropriate and timely manner.

Library Resources

To succeed in this course, you need to access academic materials from the library. Some can be done online. Please familiarize yourself with how to get online access to academic journals, reference databases, and e-books via the library. You can ask the librarians and fellow students, do an internet search, or chat in office hours. The geography librarian is Nyle Monday, Nyle.Monday@sjsu.edu

Overview of Course Schedule:

Week	Date	Topic	Assignments / Exams
1	January 27	Introduction to the Course	
2	February 3	Participatory Research, Citizen Science, Environmental Justice, and Critical Physical Geography	
3	February 10	Equipment and Project Topics	
4	February 17	Projects I: Proposal Review; ArcGIS Online & ArcCollector	Assignment Due: Draft Project Proposal
5	February 24	Projects II: Proposal Review; ArcGIS Online & ArcCollector	
6	March 2	Field Practice & Sampling	Assignment Due: Revised Project Proposal
7	March 9	Geomorphology, soils	
8	March 16	Hydrology/Water	
9	March 23	Climatology & Air Quality	Mid-Term Exam Due
10	March 30	Spring Break	
11	April 6	Biogeography	
12	April 13	Topography & Cartography	
13	April 20	Integrating with remote imagery	Assignment Due: Draft Map
14	April 27	Drones	Option: City Nature Challenge
15	May 4	Ethics, Practices, Science	
16	May 11	Final Review, Q&A, Project Presentations	
17	May 19	Final Project Report Due	Final Exam Due

Readings:

You are expected to have done the readings for the week by the time of the class meeting. I will briefly mention the next week's readings at the end of each class, in order to help you navigate through the pieces. Pay careful attention to the page numbers for the readings. There may be in-class exercises that count towards your grade based on the reading for that week. We will discuss strategies for approaching the readings, and you are encouraged also to actively work on reading strategies by discussing with fellow students, talking with me, and looking at online resources. While critically reading the materials for the class, students should ask themselves, what is the author's main argument, who and what is the author responding to, how is the argument structured, what sorts of material is the author drawing on, are there relevant issues that the author does not address or which contradict the argument. The readings are provided both to inform students and for students to critically evaluate (not as absolute truth).