

# San José State University, Environmental Studies Department

## ENVS 198 Senior Seminar, Section 01, Spring 2016

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Office Hours: Tuesdays 12–1:30 or by appointment <http://www.sjsu.edu/envs/advising/index.html>

Class Days/Time: Tuesdays & Thursdays 10:30–11:45am

Classroom: Washington Square Hall 113

Prerequisites: All students must have filed for graduation and completed the Environmental Studies curriculum core, including ENVS 100W and is taken in the final semester.

### Course Schedule

Date	Due	Topics, Readings, Assignments, Deadlines
1/28	In-class writing assignment	Course introduction; Research projects and your future; Developing Research Questions/Hypotheses Discussion; Your environmental studies research interests
2/2	Prospectus	Defining your problem statement; Choose topics, proposal writing
2/4	Research paper summary & article	Scientific Method; Deductive v. Inductive approaches to research; independent and dependent variables; null hypothesis; How to read a peer-reviewed paper; How to conduct literature research; Activity: discussion of research ideas. <a href="http://psychology.ucdavis.edu/faculty_sites/sommerb/sommerdemo/stat_inf/null.htm">http://psychology.ucdavis.edu/faculty_sites/sommerb/sommerdemo/stat_inf/null.htm</a>
2/9	Draft project idea & background	Key literature/research informing your project <i>Supplemental readings</i> <a href="#">Booth_The Craft of Research from problems to sources.pdf</a> Identify Student-Graduate student mentors
2/11	Dissecting a research paper	Key literature/research informing your project <i>Readings:</i> <a href="#">Booth_The Craft of Research Using Sources.pdf</a>
2/16	Final project idea & background to mentors	Research Methods: Quantitative, Qualitative, & Mixed Method <i>Readings:</i> <a href="#">Creswell 2003 Ch1 part1.pdf</a>
2/18	Schedule meetings w/mentors; Contact expert for interview	No class <i>Readings:</i> <a href="#">Creswell 2003 Ch1 part2.pdf</a>

Date	Due	Topics, Readings, Assignments, Deadlines
2/23	Literature review	Conducting Field Research, Data Collection Methods Discussion: Methods relevant to your topic for discussion <i>Supplemental reading</i> <a href="#">Dunn interviewing.pdf</a>
2/25	Draft resume & cover letter	Linking data to claims <a href="#">Read: 20 Tips for interpreting scientific claims</a>
3/1	Professional interview w/expert	Setting up a Spreadsheet for Data Analysis Discussion: Honing your data collection and analysis methods; budgeting, resume
3/3	Draft methods to mentors	Individual meetings
3/8	Qualtrics assignment	Receive feedback from mentors Overview of Qualtrics <a href="http://www.qualtrics.com/university/researchsuite/misc-pages/misc/learn-qualtrics-in-5-steps">http://www.qualtrics.com/university/researchsuite/misc-pages/misc/learn-qualtrics-in-5-steps</a>
3/10	Status report 1	Review of key concepts in statistics, histograms, normality, degrees of freedom; Introduction to SPSS One sample t-test, independent samples t-test
3/15	Final research proposal to mentors	Discussion of final research proposals, next steps. Stats: Paired samples t-test or dependent t-test.
3/17		Individual meetings
3/22	Final research proposal	Stats: Mann-Whitney U test, Kruskal-Wallis test
3/24		Individual meetings
4/5		Stats: One-way ANOVA, Two-way ANOVA
4/7	Progress report 2	Discuss data collection to-date-progress/problems Stats: Linear regression
4/12	Draft Report due to Mentors	Stats: Chi Squared (Pearson Correlation)
4/14		Individual meetings
4/19	Statistics Quiz	Quiz on your understanding of basic statistical tests
4/21	Preliminary data	Discussion about preliminary data
4/26	Progress report 3	Discuss key mentor feedback and key steps to complete analyses Preparing draft results
4/28		Individual meetings
5/3	Draft Results	Conducting Analyses on YOUR data with SPSS Preparing the draft discussion, conclusions, & recommendations
5/5	Draft Discussion,	Developing a Poster and the Final Research Paper

Date	Due	Topics, Readings, Assignments, Deadlines
	Conclusions, Recommendations	
5/10	Draft Poster & Progress report 4	Draft Poster Presentations 1 (ppt)
5/12	Final Poster	Draft Poster Presentations 2 (ppt)
5/24	Final Report	Poster session, details to be announced

### Course Requirements and Assignments

SJSU classes are designed such that in order to be successful, it is expected that students will spend **nine hours per week**, including preparing for and attending 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>

Assignment	Description	Points
Participation	In-class writing and discussions, peer-reviews, discussion of research papers and progress.	15
Prospectus	Potential research areas	1
Draft resume & cover letter	Starting point for your environmental qualifications	1
Interview	Interview with environmental agency staff or other practitioner	1
Draft Project Idea and Background	More complete idea for your research project	1
Final Project Idea and Background	Final version with mentor feedback	1
Dissecting a Research Paper	Detail your understanding of prior research questions and research design on your topic	5
Qualtrics assignment	Complete the Qualtrics tutorial & certificate	1
Literature Review	A brief review of the literature relevant to your project	10
Draft Methods	Proposed methods to address hypotheses & questions	(10)
a. Study design	Diagram and overview of research approach	3
b. Data collection	How you will physically collect the data you need	2
c. Analytic methods	Tools and models you will use to analyze your data	2
d. Timeline	Proposed timeline for completion	1
e. Budget	Proposed project budget, including all phases	1
f. Qualifications	Final resume	1
Final Research Proposal	A complete research proposal including methods to collect & analyze data, timeline, budget and qualifications	10
Progress reports 1-4	Four verbal progress reports on the progress of your research design and data collection/analysis	4
Statistics Quiz	Review of appropriate use of basic statistical tests	5

Draft Results	Graphs of final data, qualitative results, and their interpretation: what did you find?	5
Draft Discussion/ Conclusions/recommendations	Tie your findings to the literature, to the needs of the agency, and make specific, new recommendations	5
Draft Poster	Produce a draft poster of your work	5
Final Poster & Presentation	Revise your poster present it publicly	10
Final Report	High-quality bound professional research report	10

[University policy F69-24](http://www.sjsu.edu/senate/docs/F69-24.pdf) at <http://www.sjsu.edu/senate/docs/F69-24.pdf> states, "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."

### **Faculty Web Page and MYSJSU Messaging**

- The syllabus, handouts, assignment instructions, etc. are at: <http://sjsu.instructure.com>
- You are responsible for regularly checking with the MySJSU messaging system <http://my.sjsu.edu>

### **Course Description**

This course is the culmination of the environmental studies interdisciplinary curriculum through integration knowledge, research, & critical assessment. The goal is to develop professional research experience.

### **Course Goals and Student Learning Objectives**

This course is designed to allow each student to probe more deeply into topics introduced in their undergraduate career until now. The class affords the opportunity to network with local and international employers, and to expand your training to prepare you better for local or international work in the environment. The course is run with a project-oriented approach. Each student will become an expert through primary research and fieldwork in the topic he or she selects for the course, and each will teach the other students about this subject through a combination of readings, presentations and a written report. This course also has the goal of reinforcing all four of the Department of Environmental Studies Program Learning Objectives, listed below. These objectives encompass the knowledge and skills we expect all Environmental Studies graduates to possess.

### **Department of Environmental Studies Program Learning Objectives**

1) *Qualitative Environmental Literacy*: Students are able to write a logical analytical paper using good writing style and construction supported by appropriate research.

Goal: Achieve good to excellent level of environmental research, writing and analysis in a 15-page paper. Assignments require students to:

A) perform independent literature review on a self-chosen topic using 10 to 20 relevant scholarly/technical articles with little assistance and

B) perform critical interdisciplinary evaluations using criteria discussed in the course and provide recommendations for sustainable solutions.

2) *Quantitative Environmental Literacy*: Students are able to determine, apply and interpret appropriate basic statistical or other quantitative analyses to environmental data (Chi-square, ANOVA, Regression)

Goal: Be able to develop a study designed to use particular analyses that test a hypothesis or specific research question. Students will design their own study to test a hypothesis or research question, collect data, run appropriate analyses and interpret them; they will be able to read scholarly papers and be able to understand basic analytical methods, graphs and results.

3) *Content Environmental Literacy*: Students will develop proficiency in the interdisciplinary sustainability principles that are the foundation of environmental studies; they will know the key environmental challenges

facing the planet, know relevant interdisciplinary information about these challenges, and be able to develop/identify feasible solutions

Goal: Students develop expertise in identifying complex environmental issues, find accurate natural science and social science information on all key aspects of those issues and are able to develop feasible, sustainable solutions using central principles of sustainability. Assignments require students to:

- A) master sustainability terminology,
- B) identify subtle/complex environmental problems;
- C) provide thorough information on all sides of the issue,
- D) develop logical analysis with feasible solutions, and
- E) clearly convey the issue, information and solutions in both written and verbal form.

#### 4) Professional Skills:

- A) Students are able to productively conduct group/team work to deliver professional quality presentations and reports;
- B) Students demonstrate professional work skills.

Goal: Demonstrate professional work skills and apply knowledge gained in the degree in a career setting. Students will work productively with groups and demonstrate professionalism in their work.

### Required Texts/Reading

Numerous readings are posted to canvas to guide you during the research process.

### Library Liaison

The Environmental Studies Library Liaison is Peggy Cabrera. She is wonderful! Plan to use her knowledge and experience to assist you in finding research articles. [Peggy.Cabrera@sjsu.edu](mailto:Peggy.Cabrera@sjsu.edu) or 408-808-2034.

### Grading Policy

- If there are any extra credit opportunities they will be announced in class. You are responsible for obtaining this information.
- Late work will lose 5% of the grade for everyday late beyond the due date or grace period.
- Participation will be based on in-class writing assignments and labs, peer-reviews, and discussions of research papers and progress.
- Letter grades are assigned based on the following rubric.

If you earn...	You will receive...
90 - 100 points	<b>A-</b> (90-92), <b>A</b> (93 - 97), <b>A+</b> (>97)
80 - 89 points	<b>B-</b> (80-82), <b>B</b> (83 - 86), <b>B+</b> (87-89)
70 - 79 points	<b>C-</b> (70-72), <b>C</b> (73 - 76), <b>C+</b> (77-79)
60 - 69 points	<b>D-</b> (60-62), <b>D</b> (63 - 66), <b>D+</b> (67-69)
< 50 points	<b>F</b>

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](http://www.sjsu.edu/senate/docs/F13-1.pdf) at <http://www.sjsu.edu/senate/docs/F13-1.pdf> for more details.

### Classroom Protocol

*Time commitment:* At SJSU, students are expected to spend an average of nine hours per week for a three-unit class, including class-related activities and tasks outside of class in addition to the in-person class meetings. Careful time management will help you keep up with readings and assignments and enable you to succeed in all your classes, but you should expect to spend an average of 45 hours per week to succeed in a full-time load of 15 units.

*Attendance and preparation:* Each student will be expected to attend all class meetings and to complete all assignments before the class period.

*Discussions:* We will have discussions each week. Participation in these discussions represents a portion of your grade. It is imperative that all students be respectful and considerate to each other. All opinions are welcome and critical analysis is encouraged.

*Written work and presentations:* All assignments will be handed in through Canvas and routed through turnitin.com.

## **University Policies**

### General Expectations, Rights and Responsibilities of the Student

As members of the academic community, students accept both the rights and responsibilities incumbent upon all members of the institution. Students are encouraged to familiarize themselves with SJSU's policies and practices pertaining to the procedures to follow if and when questions or concerns about a class arises. To learn important campus information, view [University Policy S90-5](http://www.sjsu.edu/senate/docs/S90-5.pdf) at <http://www.sjsu.edu/senate/docs/S90-5.pdf> and SJSU current semester's at <http://info.sjsu.edu/static/catalog/policies.html> In general, it is recommended that students begin by seeking clarification or discussing concerns with their instructor. If such conversation is not possible, or if it does not address the issue, it is recommended that the student contact the Department Chair as the next step.

### Dropping and Adding

Students are responsible for understanding the policies and procedures about add/drop, grade forgiveness, etc. Add/drop deadlines can be found on the current academic year calendars document on the [Academic Calendars webpage](http://www.sjsu.edu/provost/services/academic_calendars) at [http://www.sjsu.edu/provost/services/academic\\_calendars](http://www.sjsu.edu/provost/services/academic_calendars) The [Late Drop Policy](http://www.sjsu.edu/aars/policies/latedrops/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](http://www.sjsu.edu/advising/) at <http://www.sjsu.edu/advising/>

### Consent for Recording of Class and Public Sharing of Instructor Material

[University Policy S12-7](http://www.sjsu.edu/senate/docs/S12-7.pdf), <http://www.sjsu.edu/senate/docs/S12-7.pdf> requires students to obtain instructor's permission to record the course and the following items to be included in the syllabus: "Common courtesy and professional behavior dictate that you notify someone when you are recording him/her. You must obtain the instructor's permission to make audio or video recordings in this class. Such permission allows the recordings to be used for your private, study purposes only. The recordings are the intellectual property of the instructor; you have not been given any rights to reproduce or distribute the material." It is suggested that the greensheet include the instructor's process for granting permission, whether in writing or orally and whether for the whole semester or on a class by class basis. In classes where active participation of students or guests may be on the recording, permission of those students or guests should be obtained as well. "Course material developed by the instructor is the intellectual property of the instructor and cannot be shared publicly without his/her approval. You may not publicly share or upload instructor generated material for this course such as exam questions, lecture notes, or homework solutions without instructor consent."

### Academic integrity

Your commitment, as a student, to learning is evidenced by your enrollment at San Jose State University. The [University Academic Integrity Policy S07-2](http://www.sjsu.edu/senate/docs/S07-2.pdf) at <http://www.sjsu.edu/senate/docs/S07-2.pdf> requires you to be honest in all your academic course work. Faculty members are required to report all infractions to the office of Student Conduct and Ethical Development. The [Student Conduct and Ethical Development website](http://www.sjsu.edu/studentconduct) is available at <http://www.sjsu.edu/studentconduct>

### Campus Policy in Compliance with the American Disabilities Act

If you need course adaptations or accommodations because of a disability, or if you need to make special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. [Presidential Directive 97-03](http://www.sjsu.edu/president/docs/directives/PD_1997-03.pdf) at [http://www.sjsu.edu/president/docs/directives/PD\\_1997-03.pdf](http://www.sjsu.edu/president/docs/directives/PD_1997-03.pdf) requires that students with disabilities requesting accommodations must register with the [Accessible Education Center](http://www.sjsu.edu/aec) (AEC) at <http://www.sjsu.edu/aec> to establish a record of their disability.

### Accommodation to Students' Religious Holidays

San José State University shall provide accommodation on any graded class work or activities for students wishing to observe religious holidays when such observances require students to be absent from class. It is the responsibility of the student to inform the instructor, in writing, about such holidays before the add deadline at the start of each semester. If such holidays occur before the add deadline, the student must notify the instructor, in writing, at least three days before the date that he/she will be absent. It is the responsibility of the instructor to make every reasonable effort to honor the student request without penalty, and of the student to make up the work missed. See [University Policy S14-7](http://www.sjsu.edu/senate/docs/S14-7.pdf) at <http://www.sjsu.edu/senate/docs/S14-7.pdf>

### Student Technology Resources

Computer labs for student use are available in the [Academic Success Center](http://www.sjsu.edu/at/asc/) at <http://www.sjsu.edu/at/asc/> located on the 1st floor of Clark Hall and in the Associated Students Lab on the 2nd floor of the Student Union. Additional computer labs may be available in your department/college. Computers are also available in the Martin Luther King Library. A wide variety of audio-visual equipment is available for student checkout from Media Services located in IRC 112. These items include DV and HD digital camcorders; digital still cameras; video, slide and overhead projectors; DVD, CD, and audiotape players; sound systems, wireless microphones, projection screens and monitors.

### SJSU Peer Connections

Peer Connections' free tutoring and mentoring is designed to assist students in the development of their full academic potential and to inspire them to become independent learners. Peer Connections tutors are trained to provide content-based tutoring in many lower division courses (some upper division) as well as writing and study skills assistance. Small group and individual tutoring are available. Peer Connections mentors are trained to provide support and resources in navigating the college experience. This support includes assistance in learning strategies and techniques on how to be a successful student. Peer Connections has a learning commons, desktop computers, and success workshops on a wide variety of topics. For more information on services, hours, locations, or a list of current workshops, please visit [Peer Connections website](http://peerconnections.sjsu.edu) at <http://peerconnections.sjsu.edu> for more information.

### SJSU Writing Center

The SJSU Writing Center is located in Clark Hall, Suite 126. All Writing Specialists have gone through a rigorous hiring process, and they are well trained to assist all students at all levels within all disciplines to become better writers. In addition to one-on-one tutoring services, the Writing Center also offers workshops every semester on a variety of writing topics. To make an appointment or to refer to the numerous online resources offered through the Writing Center, visit the [Writing Center website](http://www.sjsu.edu/writingcenter) at <http://www.sjsu.edu/writingcenter>. For additional resources and updated information, follow the Writing Center on Twitter and become a fan of the SJSU Writing Center on Facebook. (Note: You need to have a QR Reader to scan this code.)



### SJSU Counseling and Psychological Services

The SJSU Counseling and Psychological Services is located on the corner of 7th Street and San Carlos in the new Student Wellness Center, Room 300B. Professional psychologists, social workers, and counselors are available to provide confidential consultations on issues of student mental health, campus climate or psychological and academic issues on an individual, couple, or group basis. To schedule an appointment or learn more information, visit [Counseling and Psychological Services website](http://www.sjsu.edu/counseling) at <http://www.sjsu.edu/counseling>