San José State University
College of Social Science/ Environmental Studies Department
ENVS191, Advanced Environmental Restoration
Section 1, Spring 2019

Course and Contact Information

Instructor:	Cristina Siegel
Office Location:	Washington Square Hall 118A
Telephone:	408-924-5424
Email:	cristina.siegel@sjsu.edu
Office Hours:	T 12:00-1:00 or by appointment
Class Days/Time:	Monday/Wednesday 10:30am – 11:45am, Field Activities and Field Trips to include Saturday trips
Classroom:	Sweeney Hall (SH) 313
Prerequisites:	ENVS 187 with a C+ or greater
Finals Day:	Friday, May 22, 2017, 9:45am – 12:00pm

Course Format

This course has classroom lectures, discussions, fieldwork, assignments, quizzes, and exams. This course requires frequent use of a computer with Internet connectivity in class. Course materials such as syllabus, assignment instructions, quizzes, and exams are on the Canvas Learning Management System (Canvas) course website at http://sjsu.instructure.com. You are responsible for regularly checking Canvas for announcements and emails from your instructor.

Course Description

Advanced restoration research and applications. Emphasis on independent literature research and field data collection. Participation in on-going restoration project. Fieldwork and grasp of restoration principles required.

In the course Introduction to Environmental Restoration (ENVS 187) you learned the basics of successful restoration projects, including restoration planning, implementation and monitoring, and the theoretical ecological principles that support restoration science. This advanced course (ENVS 191) puts into practice the knowledge and theory you have learned. As advanced restoration students, you will work on a current restoration project that requires restoration expertise. Project work will depend on the needs of the client. Students will apply appropriate field techniques, learn data analysis methods, and develop report-writing and professional presentation skills.

Course Learning Outcomes (CLO):

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

- Understand and apply the ecological principles that are central to the field of restoration
- Understand restoration theory and apply restoration practices to a range of habitats and restoration projects
- Understand the stages of successful restoration projects and evaluate the quality of projects from the perspective of planning and design, implementation, monitoring and adaptive management
- Learn and implement methods and techniques for baseline assessment and monitoring project progress toward restoration goals

Program Learning Outcomes:

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

- PLO 1 (Qualitative Environmental Literacy): Write a logical analytical paper using good writing style and construction supported by appropriate research
- PLO 2 (Quantitative Environmental Literacy): Determine, apply and interpret appropriate basic statistical or other quantitative analyses to environmental data
- PLO 3 (Content Environmental Literacy): 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
- PLO 4 (Professional Skills: 4A): Productively conduct group/team work to deliver professional quality presentations and reports
- PLO 5 (BS Competency): Demonstrate in-depth knowledge and skills in a science or technical field

Required Texts/Readings

Textbook:

None.

Other Readings:

Additional readings will be posted on Canvas in the folder labeled Readings.

Other Technology Requirements:

This course requires daily access to a computer with Internet connectivity, word processing (Microsoft Word is required for peer-reviewed assignments), presentation, and spreadsheet software.

Library Liaison:

Peggy Cabrera is our liaison for Environmental Studies. Reach her at: peggy.cabrera@sjsu.edu

Course Requirements and Assignments

SJSU classes are designed such that in order to be successful, it is expected that students will spend a minimum of forty-five hours for each unit of credit (normally three hours per unit per week), including preparing for class, participating in course activities, completing assignments, and so on. More details about student workload can be found in University Policy S12-3 at http://www.sjsu.edu/senate/docs/S12-3.pdf.

This is a lecture and field course that requires extensive writing, reading, and research outside of the classroom. **This is a four-unit course, which means you are expected to devote 12 hours of work per week to this class through participation in the classroom, field trips, homework, and independent study**. You must prepare for each class session by completing the appropriate readings or work before lecture. You will be working within the body of knowledge of the fields of ecology and restoration and will conduct independent research as well as work in a group to present a case study of a local restoration project. A group presentation in the field and a final report is the culmination of this work. Finally, exams and quizzes will allow you to demonstrate your knowledge of the materials covered in class.

Assignments

The table below is a ***tentative*** list of assignments for the class. Assignments may be changed, added, or deleted as needed. This class is fast-paced, time consuming, and difficult in order to prepare you for your professional career. Your effort in this course and understanding of the material will be evaluated by discussions, fieldwork participation, data collection, assignments and field exams.

Assignment	**Point Value**	**Learning Objectives**
Class Activities:		
Restoration Presentation	150	PLO 4, PLO 5
Participation (discussions, workdays, class activities & assignments)	200	PLO 3, PLO 4, PLO 5
Field Activities:		
Participation	150	PLO 5
Field Exams	200	PLO 2, PLO 5
Restoration Volunteer Connection	100	PLO 3, PLO 4
Group Assignments:		
Report (Draft, Peer-Reviews, Final)	200	PLO 1, PLO 2, PLO 4
Estimated Total	**1000**	**points**

University policy F69-24 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."

Final Examination:

Students are expected to demonstrate their knowledge of material presented in class and during fieldwork. The exam will take place in the field where skills of plant identification, ecological processes, and knowledge of the site will be tested. More details can be found in University Policy S06-4 at http://www.sjsu.edu/senate/docs/S06-4.pdf which states that "There shall be an appropriate final examination or evaluation at the scheduled time in every course, unless specifically exempted by the college dean who has curricular responsibility for the course."

Grading Information

Individual grades are assigned based on the student's ability to demonstrate their knowledge of the material, provide evidence to support their work, and follow assignment instructions. Group grades are assigned based on the overall assessment of the group work and the peer-reviews. Final grades take into account assignment and exam scores, and class participation.

Grading Criteria:

All writing assignments and the research practical will be graded according to the following standards for assessing the quality of the content and the clarity of expressing concepts.

Grade	**Criteria**
A	Extremely effective organization of paragraphs and paper; interesting, varied sentences; good grammar (usage, punctuation); no spelling mistakes; excellent response with superior supporting evidence; logical analysis, reasoning, and explanation; clear mastery of concept; excellent citation form and use.
A-, B+	Very effective organization of paragraphs and paper; interesting, good sentence structure and variation; good grammar (usage, punctuation, etc.); few spelling mistakes; does not read like a first draft; good, solid response that uses strong supporting evidence; very good reasoning and explanations; great citation form and use.
B	Reasonably effective organization of paragraphs and paper; serviceable prose; numerous errors of grammar or spelling; reads like a first draft; solid response that meets minimum required by assignment; reasoning and explanations are

	adequate; okay citation form and use.
C	Structurally disorganized; paragraphs lack topic sentences or are not developed effectively; awkward sentence structure; poor grammar; poor spelling; response is accurate but cursory and does not meet the minimum required for completeness; some inaccuracies or reasoning flaws; response is too general, lacks specific evidence; all sources cited but form is incorrect.
D	Structurally disorganized; paragraphs lack topic sentences or are not developed effectively; awkward sentence structure; poor grammar; poor spelling; response does not effectively address the question; response fails to support assertions evidence; major flaws in reasoning; explanations are unclear; displays inadequate understanding of content; lack of citation.
F	Response is missing or not submitted or does not address the question.

All presentations, discussions, and field trips will be graded according to the following standards for assessing the level of participation and ability to conduct good science.

Grade	**Criteria**
A	Presentation is of appropriate length; content is of excellent quality and goes beyond the basics; facts are accurate and well explained; flow of presentation is logical and well planned with clear practice and rehearsal between group members; pictures and text are well displayed and easy to read; presenter has a good speaking voice (volume and speed) and makes frequent eye contact with audience; does not use note cards; presenter is dressed in appropriate attire. Contributes freely to discussion; speaks clearly; ideas are presented in a thoughtful and logical manner; uses strong evidence to support reasoning; clear mastery of content and material being discussed; scientific language is used when speaking; asks questions and proposes reasonable solutions. Fieldwork is technically accurate; attire is appropriate for weather and terrain conditions; demonstrates enthusiasm for field experience and working collaboratively; asks questions and is helpful to others; clear mastery of scientific method and collection techniques.
A-, B+	Presentation is of appropriate length and good content; facts are accurate and very well explained; flow of presentation is logical and well planned with clear practice and rehearsal between group members; pictures and text are well displayed and easy to read; presenter has a good speaking voice (volume and speed) and makes eye contact with audience; does not use note cards; presenter is dressed in appropriate attire. Contributes often to discussion; ideas are presented in a thoughtful and logical manner; uses evidence to support reasoning; scientific language is used when speaking; asks questions and proposes reasonable solutions. Fieldwork is technically accurate; attire is appropriate for weather and terrain conditions; displays real interest in field experience and working collaboratively; asks questions and is helpful to others.
B	Presentation is of appropriate length and content; facts are accurate; flow of presentation is logical; pictures and text are easy to read; presenter has a good speaking voice (volume and speed) and makes eye contact with audience; presenter is dressed in appropriate attire. Contributes to discussion with good ideas; supports reasoning with evidence; some scientific vocabulary is used; asks some questions. Fieldwork is technically accurate; attire is appropriate for weather and terrain conditions; shows interest in field experience and working collaboratively; asks questions.
C	Presentation is of minimal length; content is adequate; facts are somewhat accurate; presentation is organized; pictures and text are readable; presenter uses notes and is challenging to hear; presenter is dressed in appropriate attire. Needs to be prompted to contribute to discussion; supports reasoning with evidence; some scientific vocabulary is used. Approaches field experience with adequate interest; some collaboration; depends on some direction and instruction from others; does not take initiative in a group setting; demonstrates an adequate understanding of the field methods.
D	Presentation is too short; content is lacking basic information; facts are not all accurate; presentation requires organization; pictures and text are challenging to read; presenter uses notes; presenter is not dressed in appropriate attire. Needs to be prompted to contribute to discussion; does not supply evidence or more than a basic answer. Demonstrates little enthusiasm as if “just going through the motions”; little interest in collaboration; dependent on instruction; does not understand the field techniques or methods.

F	Clear lack of group participation in presentation. Missing or lack of any participation in discussions. Missing or unable to complete field methods.

Determination of Grades:

99-100% = A+	94-98% = A	90-93% = A-
88-89% = B+	83-87% = B	80-82% = B-
78-79% = C+	73-77% = C	70-72% = C-
60-69% = D	59 and below = F	

Your grade will be accessible via Canvas or in office hours.

Extra Credit:

Extra credit is not scheduled but may be used at the discretion of the instructor.

Assignment Weights:

Class Activities/Assignments = 35%
Field Work Assignments = 45%
Group Assignments = 20%

Penalty for Late or Missed Work:

All assignments are due on the day that they are listed on Canvas. Assignments turned in late will be dropped a full letter grade, and another full letter grade each day following. Assignments more than one week late will not be accepted. If 4 or more assignments are turned in late you will not pass this class. There are no late quiz allowances.

Classroom Protocol

Participation:
Students are expected to arrive on time and be seated for the start of the class period. If a student is sick or knows they will be late to class or need to leave early, email the instructor prior to class as a courtesy. It is the responsibility of the student to check with classmates about material covered during class. If a student is sick, they can request a classmate to Skype them into the classroom for the lecture – please inform the instructor a head of time.

Participation is an important element to learning. Questions and comments about the lecture are welcome during the presentation. Please use office hours for questions about grades or personal concerns.

Inappropriate behavior or disrespect towards other students and the instructor will not be tolerated and be reported to the University. Expulsion from the class can occur after the first warning.

Technology:

Cell phones and laptops are not allowed during lecture or field trips for personal use, however laptops may be used to take notes, or be used during class discussions and group work. Cell phones and cameras can be used on field trips to assist in learning.

Formatting of Assignments:

- Single spaced with 1" margins
- Times New Roman, 12pt font
- Page numbers in lower right-hand corner of page
- All citations properly formatted

Fieldwork:

Fieldwork is mandatory for this class and will include 3 hours on Saturdays as needed (travel time not included). Carpooling is critical for restricted parking at the field site.

Field trips pose potential risks, including but not limited to:

- Driving to and from field site

- Uneven terrain, unpaved surfaces
- Extreme weather (wind, rain, temperature fluctuations)
- Insects, animals, plants

Field Gear List:

- Hiking shoes or sturdy closed-toe shoes
- Rain/Muck boots (if there is rain)
- Long pants
- Light jacket or windbreaker
- Hat
- Gloves (such as for gardening)
- Water bottle
- Snacks
- Sunscreen
- Pencil
- Clipboard
- Permit (SUP)

University Policies

Per University Policy S16-9, university-wide policy information relevant to all courses, such as academic integrity, accommodations, etc. will be available on **Office of Graduate and Undergraduate Programs' Syllabus Information web page** at http://www.sjsu.edu/gup/syllabusinfo/"

ENVS 191 / Introduction to Environmental Restoration
Spring, 2019, Course Schedule

All lectures are on Mondays and Wednesdays with field activities and field trips on week afternoons and several Saturdays. In-class assignments are not listed but are included in each class. Topics, readings, assignment due dates are subject to change, depending on the needs of the course and will be announced in class. It is the student's responsibility to keep up to date with changes in this tentative schedule. Assignments are due by the beginning of class on the assigned date unless otherwise posted on Canvas.

Course Schedule

Week	Date	Topics	Readings	Assignments (due by 10:30am)
2	M 1/28	Introductions, syllabus, assignments, fieldwork		
2	W 1/30	Research Methods Introduction, Field Techniques review		
3	M 2/4	Topics in Restoration: An overview (Note: 2/5 last drop day)		
3	W 2/6	Guest Speaker Group Work		
4	M 2/11	Research and Field Techniques cont:		Due: Restoration Topic Ideas
4	W 2/13	Guest Speaker Group Work		
5	M 2/18	Guest Speaker Group Work		Due: Restoration Presentation Title and Readings
5	W 2/20	Guest Speaker Group Work		
6	M 2/25	Topics in Restoration/Group Work	2 students	
6	W 2/27	Topics in Restoration/Group Work	2 students	
7	M 3/4	Topics in Restoration/Group Work	2 students	
7	W 3/6	Topics in Restoration/Group Work	2 students	
8	M 3/11	Topics in Restoration/Group Work	2 students	
8	W 3/13	Topics in Restoration/Group Work	2 students	
9	M 3/18	Topics in Restoration/Group Work	2 students	
9	W 3/20	Topics in Restoration/Group Work	2 students	
10	M 3/25	Topics in Restoration/Group Work	2 students	
10	M 3/27	Topics in Restoration/Group Work	2 students	
Week 11: April 1st – 5th: SPRING BREAK				
12	M 4/8	Topics in Restoration	2 students	
12	W 4/10	Topics in Restoration	2 students	
13	M 4/15	Restoration group work SJSU Earth Week		

13	W 4/17	Restoration group work SJSU Earth Week		
14	M 4/22	Group work		Earth Week Activity
14	W 4/24	Group work		Due: Restoration Volunteer Connection
15	M 4/29	Group work		
15	W 5/1	Group work		Due: Final Group Report Documents
16	M 5/6	Group work		
16	W 5/8	Group work		
17	M 5/13	Review		
17	**W 5/24**	***Final Exam, Friday May 15, 2019, 9:45am – 12:00pm***		