

**San José State University**  
**College of Social Science/Department of Environmental Studies**  
**ENVS10 - SEC01 (47013); ENVS10 - SEC02 (47948);**  
**ENVS10 - SEC82 (43896)**  
**Life on a Changing Planet**  
**Fall 2021**

**Course and Contact Information**

<b>Instructor:</b>	Cristina Siegel
<b>Office Location:</b>	On Campus – WSQ115E
<b>Telephone:</b>	ENVS main office: (408) 924-2772 (please leave message)
<b>Email:</b>	<a href="mailto:cristina.siegel@sjsu.edu">cristina.siegel@sjsu.edu</a> or Canvas messenger
<b>Office Hours:</b>	On Campus: Th 12:15pm – 1:00pm Online (via zoom): M/W/F 10:00am - 4:00pm by appointment (alternative times will be considered under certain circumstances, just check in with me)
<b>Class Days/Time:</b>	SEC 01: Tu/Th 9:00 -10:15am (in person) SEC 02: Tu/Th 10:45am -12:00pm (in person) SEC 82: Tu/Th 4:00pm – 5:15pm (online only)
<b>Classroom:</b>	SEC 01: Dudley Moorhead Hall (DMH) 164 SEC 02: Dudley Moorhead Hall (DMH) 164 SEC 82: Online Only
<b>GE/SJSU Studies Category:</b>	B2

**Course Description**

The purpose of this course is to give you the basic skills and knowledge necessary to critically examine biological and environmental issues. Living systems are in a constant state of change, both as a result of natural processes and human activities. The course materials emphasize the understanding and use of the scientific method and the analysis of conflicting data and viewpoints. Students will use life science information to analyze environmental issues and debates by considering scientific consensus and the weight of scientific evidence. This course is, at its heart, a biology course. What makes it different is the application of the material to environmental issues. These two subject areas are intricately linked, though rarely taught together. By presenting this information together, it is my hope that at the end of the course you will have gained both the basic understanding of living systems, and the environmental issues that such systems currently face. It is also my hope that those of you who will go on in the field of Environmental Studies will have gained the basic scientific tools to support your arguments. This a GE/SJSU Studies category B2 course.

## **Learning Outcomes**

### **Program Learning Outcomes (Environmental Studies)**

- 1) Students are able to write a logical analytical paper using good writing style and construction, supported by appropriate research. Assignments will require students to understand and summarize materials in relevant scholarly/technical articles, and to identify basic solutions from an interdisciplinary standpoint.
- 2) Students are able to determine, apply, and interpret appropriate basic statistical or other quantitative analyses to environmental data. Students will be able to articulate and test hypotheses, and read and understand graphs and basic statistics.

### **Course Learning Outcomes (CLO)**

- 1) Students should be able to use the methods of science and knowledge derived from current scientific inquiry in life or physical science to question existing explanations.
- 2) Students should be able to demonstrate ways in which science influences and is influenced by complex societies, including political and ethical issues.
- 3) Students should be able to use the methods of science, in which quantitative, analytical reasoning techniques are used, as well as be able to express themselves in proper written English.

### **GE Learning Outcomes (GELO)**

This is a Category B2 General Education course, and as such, students will develop and demonstrate the following objectives:

- 1) gain a basic understanding of the structures and processes of living systems;
- 2) learn about the scientific method and how the body of scientific knowledge advances;
- 3) gain experience with the testable frameworks and the qualitative and quantitative methods scientists use to collect data;
- 4) develop tools to critically analyze controversial scientific issues from a life scientist's perspective;
- 5) acquire an understanding of the interrelationships between science, economics, ethics, and policy in environmental decision-making by society;
- 6) develop an understanding of how and to what extent human activities are affecting the earth's living systems.

### **Information Literacy Learning Outcomes (ILLO)**

- 1) An information literate student determines the nature and extent of the information needed. The information literate student defines and articulates the need for information, as well as identifies a variety of types and formats of potential sources for information.
- 2) An information literate student evaluates information and its sources critically and incorporates selected information into his/her knowledge base. Students summarize the main ideas to be extracted from the information gathered, articulates, and applies criteria for evaluating both the information and its sources and synthesize main ideas to construct new concepts.
- 3) The information literate student understands the economic, legal, and social issues surrounding the use of information and accesses and uses information ethically and legally.

## Required Texts/Readings

### Textbook

Simon, Eric J. 2019. Biology: The Core. Third edition. Pearson Publishing. ISBN10: 0-13-489151-1.

### Other Readings

Additional readings/videos will be provided/accessible on Canvas.

### Other technology requirements / equipment / material

You will need access to a computer with internet connection, Microsoft Word, Powerpoint, Canvas, You Tube and Zoom for both in-person and online classes. Canvas will be used extensively for

If you are enrolled in the online only class, we will use Zoom for lecture and discussion time, as well as Canvas for assignment submission, discussions, testing and communication. Lectures may be recorded asynchronously and posted on Canvas.

WiFi hotspots are available to check out locally through the San Jose Public Library System, which has 25 branches throughout San Jose. For more information on Wi-Fi hotspots check [sjpl.org/hotspot](http://sjpl.org/hotspot). *If you have challenges with computer equipment or internet service, please let me know as a variety of help is available.*

### Library Liaison

Peggy Cabrera ([peggy.cabrera@sjsu.edu](mailto:peggy.cabrera@sjsu.edu)) is the Library Liaison for the Department of Environmental Studies. She is a great resource, available for helping with research projects and scientific reference searches. She will be available by email this semester.

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

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.

Additionally, 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, homework solutions, in-class audio/video recordings, etc. without instructor consent.

See [University Policy S12-7](http://www.sjsu.edu/senate/docs/S12-7.pdf) at <http://www.sjsu.edu/senate/docs/S12-7.pdf>.

### Academic Integrity

Your commitment, as a student, to learning is evidenced by your enrollment at San Jose State University. The [University Academic Integrity Policy F15-7](http://www.sjsu.edu/senate/docs/F15-7.pdf) at <http://www.sjsu.edu/senate/docs/F15-7.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/>. Instances of academic dishonesty will not be tolerated. **Cheating on exams or plagiarism (presenting the work of another as your own, or the use of another person's ideas without giving proper credit) will result in a failing grade and sanctions by the University.** For this class, all assignments are to be completed by the individual student unless otherwise specified. If you would like to include in your assignment any material you have submitted, or plan to submit for another class, please note that University Academic Integrity Policy F15-7 requires approval of both instructors.

## Resources for Students

There are many resources on campus available to you. Some examples include: SJSU Peer Connections Center, the College of Social Science Access Center, SJSU Writing Center, SJSU Computing Services, SJSU Counseling and Psychological Service, SJSU Student Health Center, the Academic Success Center, and many places to use or get help with technology. See the [Syllabus Information web page](http://www.sjsu.edu/gup/syllabusinfo/) at <http://www.sjsu.edu/gup/syllabusinfo/> for more info or come see me.

## Course Requirements and Assignments

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.

## Canvas Instructions

**For this class, all assignments are to be completed by the individual student unless otherwise specified.**

All written take home assignments are to be submitted in electronic form through Canvas unless otherwise noted. If you have trouble with this, please come see me before the due date and time. **All assignments are due BEFORE class time on the due date listed in the course calendar.**

It is your responsibility to check Canvas and your email daily for announcements about class activities, assignments, posting of lecture videos.

## Exams

Two exams will be given to test your understanding of the material presented in the lectures, readings, and in-class activities. Exams may be in-class or online and open for a certain period. Please do not miss an exam as you will not have the opportunity to make it up. **Make-up exams may be considered for legitimate and documented circumstances (i.e., medical emergency, death in the family).**

## Quizzes

Several quizzes will be given throughout the semester. These will be short, timed quizzes to be completed on Canvas, due by class time on the assigned day. These quizzes will be based on previous class material as well as the readings/videos assigned for the week. Quizzes are timed but will be available for a period of up to 24 hours prior to the due date. During the quiz open period you may log-in to Canvas and take the timed quiz at a time of your choosing. Be sure to log-in and complete the quiz BEFORE the closing time. Quizzes are individual activities and are not to be taken with other classmates. **During Canvas quizzes and exams, do not use ANY other electronic devices (cell phones, tablets, other computers) to look up question answers.** *This is considered cheating and will result in a failing grade. There will be no make-up quizzes available.*

## Assignments

There will be varying types of assignments throughout the semester. These assignments are designed to aid in your understanding of the course material, as well as develop skills in evaluating, analyzing, and communicating information about environmental issues. All assignments are expected to be typed and submitted through Canvas unless otherwise noted. Cumulatively, the assignments will make up a major portion of your grade for this course.

## Field Trip

This course contains a field trip, which may be virtual or self-directed and in-person, as current conditions allow. This will be done outside of class time, but you will have the entire semester to visit and learn about one

of the field trip locations (or virtual field trip activity) and complete a write-up. Details will be given in class.

### **Class Participation**

This is a lecture course, however there is a participation component. Students are expected to review all assigned lecture videos, complete the assigned readings before class, take good notes, attend question and discussion sessions, turn assignments in on time, read book chapter assignments and class handouts, and participate in occasional class discussions and activities. You will receive participation points for contributing to discussions and participating in activities. **You must be present and prepared to receive participation points; there are no make-up points for missed class.** A thoughtful solid question shows that you not only understand the material but are thinking about it on a deeper level; as such, credit will be given for thoughtful questions.

### **Formatting**

Please note that all assignments need to be formatted as follows: 12-point font, Times New Roman, 1-inch margins, doubled spaced, include a header with name and date, and uses Turabian/Chicago author-year citation style where applicable. All documents must be submitted in Word or PDF format. A 10% deduction will occur for not following these guidelines.

### **Classroom Protocol**

**Virtual classroom:** Class is conducted through Zoom and Canvas. During Zoom class sessions, please keep Zoom on mute except to ask questions and share ideas. **During Canvas quizzes and exams, do not use ANY** other electronic devices (cell phones, tablets, other computers) to look up question answers. This is considered cheating and will result in a failing grade.

**In person/On Campus class:** The use of laptops during class time will be restricted to in-class activities and note taking. Students who use their computers for other activities or who abuse the equipment in any way, at a minimum, will be asked to leave the class and will lose participation points for the day. Cell phones, music players, and any other electronic devices must be turned off and stored in your backpack/purse. **Any** use of electronic devices during in class quizzes and exams is considered cheating, and will result in a failing grade.

### **University Policies**

Per [University Policy S16-9](http://www.sjsu.edu/senate/docs/S16-9.pdf) at <http://www.sjsu.edu/senate/docs/S16-9.pdf>, relevant information to all courses, such as academic integrity, accommodations, dropping and adding, consent for recording of class, etc. is available on Office of Graduate and Undergraduate Programs' [Syllabus Information web page](http://www.sjsu.edu/gup/syllabusinfo/) at <http://www.sjsu.edu/gup/syllabusinfo/>". Make sure to visit this page, review and be familiar with these university policies and resources.

## Grading Information

Your grade will be based on your exams, assignments, and class participation. Total points possible may change based on progress of the semester.

### Grading Overview and Assessment of Learning Objectives

Assignment	Points	Learning Objectives
Quizzes (4)	75	CLO #1, 2, PLO #2, GELO #1, 2, 3
Exam 1	75	CLO #2, 3, PLO # 2, GELO #1, 2, 5, 6
Exam 2	75	CLO #2, 3, PLO #2, GELO #1, 2, 5, 6
Environmental Project	75	CLO #3, PLO #1, 2, ILLO# 1, 2, 3, GELO # 2, 3, 4, 5, 6
Ecology Assignment	25	CLO #1, 2, 3, GELO #4, 5, 6
Evolution Assignment	25	CLO #2, GELO #5, 6
Conservation Assignment	25	CLO #2, GELO #5, 6
Sustainability Assignment	25	CLO #2, GELO #5, 6
Field Trip Write-Up	30	CLO #2, 3, GELO #1, 5, 6
Participation/Discussion	70	CLO #1, 2, 3 PLO #2, GELO #1, 2, 3, 4, 5, 6
<b>TOTAL</b>	<b>500</b>	

### Grade Scale

97%-100% = A+	93% - 96% = A	90% - 92% = A-
87% - 89% = B+	83% - 86% = B	80% - 82% = B-
77% - 79% = C+	73% - 76% = C	70% - 72% = C-
60% - 69% = D	less than 60% = F	

### Late Work

All assignments are due **BEFORE** class time on the due date listed in the course calendar. Late work is generally not accepted. Exceptions may be considered for legitimate and documented circumstances (i.e. medical emergency, death in the family). There will be no make-ups for Canvas quizzes. Please plan accordingly and consider submitting extra credit activities to make-up for missing a Canvas quiz.

### Extra Credit

Students are responsible for recording the details of any offered extra credit assignments.

### Course Schedule *(Note: May be changed based on course progress)*

Date	Class Topics/Activities	Readings/Viewings	Participation Activities	Assignments and Quizzes Due
Thur 19 <sup>th</sup> Aug	Intro/syllabus			
Tues 24 <sup>th</sup> Aug	Scientific data and information	Syllabus & SJSU Academic Integrity PDF		
Thur 26 <sup>th</sup> Aug	Scientific information and Scientific Papers	C1: 1.4-1.10	Syllabus & Academic Integrity due (5pts)	

<b>Date</b>	<b>Class Topics/Activities</b>	<b>Readings/Viewings</b>	<b>Participation Activities</b>	<b>Assignments and Quizzes Due</b>
Tues 31 <sup>st</sup> Aug	Foundations of Biology: Cells & Chemistry	C1: 1.1-1.3; C2 & 3	Written response #1 Due	
Thur 2 <sup>nd</sup> Sept	Cells and Chemistry	C4		EnvProject: Topic Research due
Tues 7 <sup>th</sup> Sept	Cells: Photosynthesis & Respiration	C4		Quiz 1
Thur 9 <sup>th</sup> Sept	Cycles: Water & Nutrients	C12:Sec12.15-16		
Tues 14 <sup>th</sup> Sept	Cycles: Water and Nutrients		Written response #2	EnvProject: Interview Questions due
Thur 16 <sup>th</sup> Sept	Ecology: energy flow, populations & interactions	C4; C12: 12.1-12.14		
Tues 21 <sup>st</sup> Sept	Ecology: energy flow, populations & interactions cont:			Quiz 2
Thur 23 <sup>rd</sup> Sept	Ecology: energy flow, populations & interactions cont:			
Tues 28 <sup>th</sup> Sept	Case Study: Sea Otter class activity			EnvProject: Interview Plans due
Thur 30 <sup>th</sup> Sept	Ecology: Biomes	C12		Quiz 3
Tues 5 <sup>th</sup> Oct	Ecology: Finish Biomes			Ecology Assignment due (25pts)
Thur 7 <sup>th</sup> Oct	Environmental Project/Exam Review			
Tues 12 <sup>th</sup> Oct	EXAM 1 (75pts)			
Thur 14 <sup>th</sup> Oct	Genetics & Heredity	C5, C6		
Tue 19 <sup>th</sup> Oct	Genetics & Heredity cont:			
Thur 21 <sup>st</sup> Oct	Evolution & Diversity of Life	C7; Darwin Video (Evolution Hmwk)	Written Response #3	

<b>Date</b>	<b>Class Topics/Activities</b>	<b>Readings/Viewings</b>	<b>Participation Activities</b>	<b>Assignments and Quizzes Due</b>
Tue 26 <sup>th</sup> Oct	Evolution & Diversity of Life	C7; C8 - C10(select sections)		
Thur 28 <sup>th</sup> Oct	Biodiversity and Response to Change: Habitat Loss	C12: Sec 12.10-11		Evolution Hmwk due (25pts)
Tues 2 <sup>nd</sup> Nov	Biodiversity and Response to Change: Invasive Species	C12: Sec 12.10-11		Quiz 4
Thur 4 <sup>th</sup> Nov	Biodiversity & Response to Change: Pollution	C12:Sec12.19		
Tues 9 <sup>th</sup> Nov	Response to Change: Climate Change & Energy			Conservation Hmwk due (25pts)
Thur 11 <sup>th</sup> Nov	NO CLASS - Veterans Day Holiday			
Tues 16 <sup>th</sup> Nov	Sustainability Concepts	C12:Sec12.17-18		
Thur 18 <sup>th</sup> Nov	Sustainability Concepts/ Environmental Ethics and Social Justice			Sustainability Hmwk Due (25pts)
Tues 23 <sup>rd</sup> Nov	Environmental Ethics and Social Justice			Field Trip Paper due (25pts)
Thur 25 <sup>th</sup> Nov	NO CLASS – Thanksgiving Holiday Break			
Tues 30 <sup>th</sup> Nov	Env. Project Review/Exam 2 Review		Written Response #4	
Thur 2 <sup>nd</sup> Dec	Last Day Class			Env.Project Presentations
<i>Mon 6<sup>th</sup> Dec</i>	<i>SJSU Last Day All Classes</i>			
<i>Wed 8<sup>th</sup> to Tues 14<sup>th</sup> Dec</i>	<i>SJSU Final Exam Period</i>			
<b>Thur Dec 9<sup>th</sup></b>	<b>Our Class EXAM 2: 2:45pm - 5:00pm</b>			