

San José State University
College of Social Sciences | Department of Environmental Studies
ENVS 10, Life On a Changing Planet; Spring 2016

Course and Contact Information

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Office Hours:	Mon 1:00-2:00pm, Thur 10:30-11:30am, and by appointment
Class Days/Time:	Section 2 (Course 25110) Tue/Thur 0900-1030
Classroom:	WSQ 207
GE/SJSU Studies Category:	B2

Course Overview and 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 closely 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.

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.

GE Learning Outcomes

- 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.

Course Learning Outcomes

- 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.

Information Literacy Learning Outcomes

- 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 synthesizes 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/Materials

Textbook

Simon, Eric J. 2015. *Biology: The Core*. Pearson Publishing. ISBN10: 0-321-73586-2
Other readings may be assigned and will be available on Canvas.

Other Equipment / Materials

You will need access to a computer with Microsoft Word and the internet. Be sure to bring pencil and/or pens with blue or black ink and paper to every class even if you take notes on a laptop.

Classroom Protocol

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 quizzes and exams is considered cheating, and will result in a failing grade.

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](http://www.sjsu.edu/senate/docs/S12-3.pdf) at <http://www.sjsu.edu/senate/docs/S12-3.pdf>.

The exams and assignments are designed to help you learn the course material and develop skills for evaluating, analyzing, and expressing solutions to environmental issues. **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.

Canvas Instructions

For this course, all take home assignments must be turned in through the Canvas learning management system, unless otherwise noted. If you have trouble with this, please come see me. **All assignments are due by 9am on the due date listed in the course calendar.**

Exams

One midterm and one final exam will be given to test your understanding of the material presented in the lectures, readings, and in-class activities. The final will be cumulative and partially based on the midterm. The exams will constitute a large portion of your grade. 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 (medical emergency, death in the family) with proper documentation.

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. In-class assignments are expected to be completed neatly and thoroughly, while at home 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.

Formatting

Please note that all assignments need to be formatted as follows: 12 point font, Times New Roman, 1 inch margins, doubled spaced, and include a header with name and date. A 10% deduction will occur for not following these guidelines.

Class Participation

This is a lecture course, however there is a participation component. [University policy F69-24](http://www.sjsu.edu/senate/docs/F69-24.pdf) at <http://www.sjsu.edu/senate/docs/F69-24.pdf> states that “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.” Students are expected to attend each class on time, complete the assigned readings before

class, take good notes, ask questions, turn assignments in on time, pick up class handouts, and participate in class debates, discussions, and activities. You will receive participation points for contributing to debates and discussions and participating in activities. **You must be present and prepared to receive participation points; there are no makeup 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.

Field Trip

You will be given a list of field trip locations, and are required to visit one. 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 and complete a write-up. Details will be given in class.

Grading Policy

Your grade will be based on your exams, assignments, and class participation. All assignments are to be turned in through Canvas before the specified due date and time or at the beginning of the due date class unless otherwise indicated. 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>.

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 by 9am on the due date listed in the course calendar. Late work is NOT accepted. Exceptions may be considered for legitimate and documented circumstances (medical emergency, death in the family) with proper documentation.

Extra Credit

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

Grading Overview and Assessment of Learning Objectives

<i>Assignment</i>	<i>Points</i>	<i>Learning Objectives</i>
Midterm	100	SLO #2, 3, PLO # 2
Final Exam	100	SLO #2, 3, PLO #2
Invaders Questions	10	SLO #3, PLO #2
Darwin Questions	10	SLO #2, 3
Scientific Paper Analysis	50	SLO #3, PLO #1, 2, ILLO# 1, 2, 3
Case Study #1	40	SLO #1, 3, PLO #2
Debate Response	10	SLO #2, ILLO# 1, 2, 3
My Footprint Activity	10	SLO #2
Field Trip Write-Up	20	SLO #2, 3
Class Participation	50	SLO #1, 2, 3 PLO #2
TOTAL	400	

University Policies

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/. 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/>.

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 [Policies and Procedures](http://info.sjsu.edu/static/catalog/policies.html), at <http://info.sjsu.edu/static/catalog/policies.html>. 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.

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. The recordings are the intellectual property of the instructor; you have not been given any rights to reproduce or distribute the material. See [University Policy S12-7](http://www.sjsu.edu/senate/docs/S12-7.pdf), <http://www.sjsu.edu/senate/docs/S12-7.pdf>.

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/>. 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 SJSU's Academic Policy F06-1 requires approval of both instructors.

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](#) at

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](#) (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](#) 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](#) 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 Center

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](#) 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](#) 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.

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>.

Course Schedule Please note that the course calendar may change based on the progress of the class.

Week	Date	Topics/Content	Readings	Assignments Due
1	Thur 28 Jan	Course Overview Scientific Method	Chpt 1	
2	Tue 2 Feb	Video: Invaders	Plagiarism Reading; Pgs. 316-317	
2	Thur 4 Feb	Chemistry/Cells	Ch. 2-3	
3	Tue 9 Feb	Respiration/Photosynthesis	Ch. 4	Invaders Questions
3	Thur 11 Feb	Biogeochemistry	Pgs. 302-305	
4	Tue 16 Feb	Envs Issue: Climate Change	Pgs. 330-331, TBD	
4	Thur 18 Feb	Activity: Scientific Papers	TBD	
5	Tue 23 Feb	Genetics	Chpt. 5 to pg 99, pgs. 110-113	
5	Thur 25 Feb	Genetics	Chpt. 6 to pg 129, pgs. 100-109	
6	Tue 1 Mar	Envs Issue: Genetic Engineering	Pgs. 140-153	Scientific Paper Analysis
6	Thur 3 Mar	Envs Issue: Future of Food/Agriculture	TBD	
7	Tue 8 Mar	Video: Charles Darwin and the Tree of Life		
7	Thur 10 Mar	Evolution	Chpt. 7	
8	Tue 15 Mar	Evolution	Chpt. 8-9	Darwin Questions
8	Thur 17 Mar	Evolution Activity: Animal Evolution	Chpt. 10	
9	Tue 22 Mar	Envs Issue: Biodiversity Loss	Pgs. 316-319, TBD	
9	Thur 24 Mar	MIDTERM		
10	Tue 29 Mar	NO CLASS	SPRING BREAK	
10	Thur 31 Mar	NO CLASS	SPRING BREAK	
11	Tue 5 Apr	Ecology	Pgs. 296-301, 320-325, 332-333	
11	Thur 7 Apr	Ecology	Pgs. 310-315	
12	Tue 12 Apr	Ecosystems/Succession	Pgs. 306-309	

Week	Date	Topics/Content	Readings	Assignments Due
12	Thur 14 Apr	Case Study #1	TBD	
13	Tue 19 Apr	Pollution	TBD	
13	Thur 21 Apr	Alternative Energy	TBD	
14	Tue 26 Apr	Sustainability	Pgs. 326-329	Case Study #1
14	Thur 28 Apr	Case Study #2	TBD	
15	Tue 3 May	Debate: Group 1		My Footprint Activity
15	Thur 5 May	Debate: Group 2		
16	Tue 3 May	Debate: Group 3		
16	Thur 5 May	Environmental Justice	TBD	Debate Response Field Trip Write-Up
	Thur 19 May	FINAL EXAM 7:15 – 9:30am		