

San José State University
College of Social Sciences/Department of Environmental Studies
EnvS 10, Life on a Changing Planet, Sections 1 & 2, Fall, 2019

Course and Contact Information

Instructor:	Metha Klock
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Email:	metha.klock@sjsu.edu
Office Hours:	Tuesdays 11:00am – 1:00pm, or by appointment
Class Days/Time:	Section 1: Monday/Wednesday 9:00am – 10:15am Section 2: Monday/Wednesday 10:30am – 11:45am
Classroom:	Lecture in Dudley Moorhead Hall 164
Prerequisites:	GE B2
Finals Day:	Section 1: Friday, December 13, 2019, 7:15am – 9:30am Section 2: Thursday, December 12, 2019, 9:45am – 12:00pm

Course Format

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

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 closely linked, though rarely taught together. By presenting this information together students gain both a basic understanding of living systems and the environmental issues that such systems currently face. This course should also provide students who will go on in the field of Environmental Studies the basic scientific tools to support their arguments and communicate within the scientific community.

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 (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.

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.

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

Textbook

Simon, Eric J. (2019) Biology: The Core, 3rd Edition. Pearson Publishing. ISBN10: 0-134-8915-11.

Other readings may be assigned and will be available on Canvas. Text is available at the SJSU bookstore and from online retailers.

Other Readings

Additional readings available on Canvas.

Other technology requirements / equipment / material

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.

Library Liaison

Peggy Cabrera (peggy.cabrera@sjsu.edu or 408-808-2034) is the Library Liaison for the Department of Environmental Studies. She is a great resource who is available at the Reference Desk in MLK Library Tuesdays 11am-1pm, or by appointment.

Course Requirements and Assignments

I expect all students to come prepared and actively participate in ALL scheduled meeting times. Preparation for the lecture involves reading the assigned material before coming to class. This will help you understand and remember the material that I go through in class, allow you to ask any questions over topics you are not clear on, be able to effectively participate in class activities, and do well on assignments and exams. It is extremely important for you to be prompt. I will cover announcements and other important information at the beginning of class. You are responsible for all announcements, information, and material that you miss.

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. 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>.

Attendance

YOU MUST ATTEND CLASS to get a good grade in the class. Exam questions will be based on information covered during lecture, and important information about tests and assignments will be given during lecture. **If YOU MISS an in-class assignment, such as a quiz or exam that is worth points toward your grade and do not have a University sanctioned excused absence, you will receive a 0 on that assignment.**

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 at 11:59pm on the due date listed in the course calendar.**

Lecture Materials

PowerPoint slides and other materials provided during lecture will not always be posted on Canvas. You are expected to work outside of class, attend class, and take notes.

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). Pop-quizzes will be occasionally given at the beginning of class and as part of your grade you are expected to participate in class discussions. Cumulatively, the assignments will make up a major portion of your grade for this course.

Assignment	Point Value	Learning Objectives
Midterm	100	CLO #2, 3, PLO # 2, GELO #1, 2, 5, 6
Final Exam	100	CLO #2, 3, PLO #2, GELO #1, 2, 5, 6
Scientific Paper Analysis 1	20	CLO #3, PLO #1, 2, ILLO# 1, 2, 3, GELO # 2, 3, 4, 5, 6
Scientific Paper Analysis 2	50	CLO #3, PLO #1, 2, ILLO# 1, 2, 3, GELO # 2, 3, 4, 5, 6
Sea Otter Case Study	40	CLO #1, 2, 3, PLO #2, GELO #1, 2, 3, 5
Darwin Questions	15	CLO #1, 2, 3, GELO #1, 2
Ethics Response	20	CLO #2, GELO #4, 5, 6

Sustainability Activities	25	CLO #2, GELO #5, 6
Field Trip Write-Up	30	CLO #2, 3, GELO #1, 5, 6
Class Participation: In-class assignments (30%), Quizzes (20%), Discussion (50%)	100	CLO #1, 2, 3 PLO #1, 2, GELO #1, 2, 3, 4, 5, 6
Estimated Total	500	

Final Examination or Evaluation

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 (i.e., medical emergency, death in the family) with proper documentation.

More details can be found in [University policy S17-1](http://www.sjsu.edu/senate/docs/S17-1.pdf) (<http://www.sjsu.edu/senate/docs/S17-1.pdf>) which states that “Faculty members are required to have a culminating activity for their courses, which can include a final examination, a final research paper or project, a final creative work or performance, a final portfolio of work, or other appropriate assignment.”

Field Trip

You will be given a list of field trip locations and are required to visit one location. 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 Information

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 unless otherwise indicated.

Determination of Grades

<i>Grade</i>	<i>Points</i>	<i>Percentage</i>
<i>A plus</i>	<i>485-500</i>	<i>97 to 100%</i>
<i>A</i>	<i>465-484</i>	<i>93 to 96%</i>
<i>A minus</i>	<i>450-464</i>	<i>90 to 92%</i>
<i>B plus</i>	<i>435-449</i>	<i>87 to 89 %</i>
<i>B</i>	<i>415-434</i>	<i>83 to 86%</i>
<i>B minus</i>	<i>400-414</i>	<i>80 to 82%</i>
<i>C plus</i>	<i>385-399</i>	<i>77 to 79%</i>
<i>C</i>	<i>365-384</i>	<i>73 to 76%</i>
<i>C minus</i>	<i>350-364</i>	<i>70 to 72%</i>
<i>D plus</i>	<i>335-349</i>	<i>67 to 69%</i>
<i>D</i>	<i>315-334</i>	<i>63 to 66%</i>
<i>D minus</i>	<i>300-314</i>	<i>60 to 62%</i>

Extra Credit

If appropriate, there may be an extra credit assignment for this course.

Penalty for Late or Missed Work

Assignments are due on the date given as a due-date on Canvas. Assignments turned-in later than the due date/time will have 10% subtracted from the overall score for each day late (starting immediately after the time the assignment is due), and assignments that are three or more days late will not be accepted or graded. If four or more assignments are turned in late you will not pass this class. There are no late quiz or exam allowances or extensions unless you have a University

sanctioned excused absence. If you are going to miss class due to an excused absence, please let the instructor know as soon as possible and ideally a week in advance of your absence.

Classroom Protocol

Participation

This is a lecture course, however there is a participation component. 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. Pop-quizzes will make up 20% of your participation points, in-class assignments 30%, and discussion participation 50%. The extent of participation in discussion will be determined by the instructor. **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.

Acceptable Classroom Behavior

Any behaviors that disrupt the classroom or show disrespect to the lecturer or other students will not be tolerated. I will ask you to leave the classroom if you cannot act with respect and discipline. **RESPECT STATEMENT:** A goal of this course is to create and maintain a learning environment that is respectful and open. All students are expected to value and respect the views, beliefs, and opinions of their fellow class members and to contribute to creating a positive learning atmosphere that is open to inquiry and communication. Strongly held views should be expressed in assertive terms rather than with accusation, blame, or judgment. Students should also be mindful of using inclusive language to create a classroom in which people with different gender, racial, sexual, ethnic, ability, and age identities are treated with equal value and respect.

Technology

TURN-OFF CELL PHONES when you enter the classroom. **If I notice you are otherwise engaged in texting or surfing the internet, you will lose 5 participation points for each incident.** Laptops may not be used for personal use but may be used to take notes or be used during class discussions and group work.

Formatting of Assignments

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

University Policies

Per [University Policy S16-9](http://www.sjsu.edu/senate/docs/S16-9.pdf) (<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.

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. 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 on the assignment 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.

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 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.

EnvS 10 / Life on a Changing Planet, Fall, 2019, Course Schedule

This is a tentative schedule for the class and is subject to change. **It is the student's responsibility to keep up to date with changes in the class schedule.** In-class assignments are not listed. **Assignments are due to Canvas by 11:59pm on the assigned date unless otherwise posted.** Additional readings will be assigned throughout the semester and will be posted on Canvas.

	Date	Class Topics	Readings	Assignments (due 11:59pm)
1	W 8/21	Introduction to course, syllabus, what is science?		
2	M 8/26	Hypothesis testing, theories, evaluating evidence and sources	Ch. 1 & Academic Integrity Policy S07-2	
2	W 8/28	Scientific paper		
3	M 9/2	Labor Day – no class		<i>Last Day to Drop Class (9/3)</i>
3	W 9/4	The chemistry of life and cells	Ch. 2-3	
4	M 9/9	Energy and life	Ch. 4, Ch. 12.7-12.8	<i>Last Day to Add Class (9/10)</i>
4	W 9/11	The diversity of life	Ch. 12.11	Scientific Paper Analysis 1 due
5	M 9/16	Evolution and the tree of life	Ch. 7.1,7.4-7.9	
5	W 9/18	<i>Darwin documentary</i>		
6	M 9/23	Natural selection	Ch. 7.2-7.3	Darwin Questions due
6	W 9/25	Species concepts	Ch. 7.10-7.13	
7	M 9/30	<i>Evolution Game</i>		
7	W 10/2	Genetics	Ch. 5	
8	M 10/7	Genetic engineering	Ch. 6	Evolution Game Questions due
8	W 10/9	Population growth	Ch. 12.1-12.6	
9	M 10/14	Biomes	Ch. 12.12-12.13	
9	W 10/16	<i>Biomes activity</i>		Scientific Paper Analysis 2 due
10	M 10/21	<i>Biomes activity</i>		
10	W 10/23	Midterm		
11	M 10/28	Biodiversity	Ch. 8-9, Ch. 12.9	
11	W 10/30	Conserving biodiversity	Ch. 10, Ch. 12.10	
12	M 11/4	<i>Case study</i>		
12	W 11/6	Water and nutrient cycles	Ch. 12.14-12.16	
13	M 11/11	Veteran's Day – no class		
13	W 11/13	Sustainability	Ch. 12.17-12.18	Case Study due
14	M 11/18	Sustainability		
14	W 11/20	Global climate change	Ch. 12.19	
15	M 11/25	Global climate change		Sustainability Activities due
15	W 11/27	Thanksgiving Break – no class		
16	M 12/2	<i>Ethics activity</i>		
16	W 12/4	Policy, ethics, justice		Ethics Response due
17	M 12/9	Wrap-up and course evaluations		Field Trip Write-Up due
	Final Exam	Sec. 1: Fri., Dec. 13, 2019, 7:15am-9:30am Sec. 2: Thurs., Dec. 12, 2019, 9:45am-12:00pm		