San José State University
College of Social Sciences | Department of Environmental Studies
ENVS 10, Life On a Changing Planet; Fall 2015

Instructor	Rachel Lazzeri-Aerts
Classroom	Sweeney Hall 100
Class Days/Time	Section 1 (Course 48560) Tue/Thur 1030-1145am
Office Hours	TBD and by appointment
Office Location	WSQ 111B
E-mail/Phone	rachel.sjsu@gmail.com 408-475-3507 cell 408-924-7688 office

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.

Required Materials

Textbook: Simon, Eric J. 2015. Biology: The Core. Pearson Publishing. ISBN10: 0-321-73586-2
Other: 3”x5” or 4”x6” index cards

General Education Student Learning Objectives

This class 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.

Program Learning Objectives (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.

Information Literacy Learning Objectives

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.

Student Learning Objectives

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.

Course Requirements

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.

Success in this course is based on the expectation that students will spend, for each unit of credit, a minimum of forty-five hours over the length of the course (normally 3 hours per unit per week with 1 of the hours used for lecture) for instruction or preparation/studying or course related activities including but not limited to internships, labs, clinical practica. Other course structures will have equivalent workload expectations as described in the syllabus.

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 10am 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.

Class 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 attending class and 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. In addition to class participation, there will be multiple opportunities for in-class assessment of your progress, which will take form of quizzes, anonymous writing responses, group activity reports, etc.

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.

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

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.

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 10am 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.

Grading Overview and Assessment of Learning Objectives

Assignment	*Points*	*Learning Objectives*
Midterm	100	SLO #2, 3, PLO # 2
Final Exam	100	SLO #2, 3, PLO #2
Activities	150	
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	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	

Dropping and Adding

Students are responsible for understanding the policies and procedures about add/drop, grade forgiveness, etc. Refer to the current semester's Catalog Policies section at http://info.sjsu.edu/static/catalog/policies.html. Add/drop deadlines can be found on the current academic year calendars document on the Academic Calendars website at http://www.sjsu.edu/provost/services/academic_calendars/. The Late Drop 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 at http://www.sjsu.edu/advising/.

Electronic Devices

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.

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. 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, or homework solutions without instructor consent.

University Policies

Academic Integrity

Students should know that the University's Academic Integrity Policy is available at http://www.sjsu.edu/senate/docs/S07-2.pdf. Your own commitment to learning, as evidenced by your enrollment at San Jose State University and the University's integrity policy, require 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 website for Student Conduct and Ethical Development 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/directives/current/pd9703/ 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.

Student Technology Resources

Computer labs for student use are available in the Academic Success Center located on the 1st floor of Clark Hall, on the 2nd floor of the Student Union, and in the Martin Luther King Library. Additional computer labs may be available in your department or college. Media Services in IRC 112 lends a variety of A/V equipment, including digital and VHS camcorders; VHS and Beta video players; 16 mm, slide, overhead, DVD, CD, and audiotape players; sound systems and wireless microphones; and projection screens and monitors.

Peer Connections Center

Peer Connections is designed to assist students in the development of their full academic potential and to motivate them to become self-directed learners. The center provides support services, such as skills assessment, individual or group tutorials, subject advising, learning assistance, summer academic preparation and basic skills development. See the website at http://peerconnections.sjsu.edu/index.html

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

Date	Content/Topic	Readings	Assignments Due
Thur 20 Aug	Course Overview Intro to Environmental Issues Scientific Method	Chpt 1	
Tues 25 Aug	**Video: Invaders**	Plagiarism Reading; Pgs. 316-317	
Thurs 27 Aug	Chemistry/Cells	Ch. 2-3	
Tues 1 Sept	Respiration/Photosynthesis	Ch. 4	**Invaders Questions**
Thurs 3 Sept	Biogeochemistry	Pgs. 302-305	
Tues 8 Sept	Envs Issue: Climate Change	Pgs. 330-331, TBD	
Thurs 10 Sept	**Activity: Scientific Papers**	TBD	
Tues 15 Sept	Genetics	Chpt. 5 to pg 99, pgs. 110-113	
Thurs 17 Sept	Genetics	Chpt. 6 to pg 129, pgs. 100-109	
Tues 22 Sept	Envs Issue: Genetic Engineering	Pgs. 140-153	**Scientific Paper Analysis**
Thurs 24 Sept	Envs Issue: Future of Food/Agriculture	TBD	
Tues 29 Sept	**Video: Charles Darwin and the Tree of Life**		
Thurs 1 Oct	Evolution	Chpt. 7	
Tues 6 Oct	Evolution	Chpt. 8-9	**Darwin Questions**
Thurs 8 Oct	Evolution **Activity: Animal Evolution**	Chpt. 10	
Tues 13 Oct	**Midterm**		
Thurs 15 Oct	Envs Issue: Biodiversity Loss	Pgs. 316-319	
Tues 20 Oct	Ecology	Pgs. 296-301, 320-325, 332-333	
Thurs 22 Oct	Ecology	Pgs. 310-315	
Tues 27 Oct	Ecosystems/Succession	Pgs. 306-309	
Thurs 29 Oct	**Case Study #1**		
Tues 3 Nov	Pollution	TBD	
Thurs 5 Nov	Alternative Energy	TBD	
Tues 10 Nov	**VETERAN'S DAY**	**NO CLASS**	
Thurs 12 Nov	Sustainability	Pgs. 326-329 TBD	**Case Study #1**
Tues 17 Nov	**Case Study #2**		
Thurs 19 Nov	**Debate: Group 1**		**My Footprint Activity**
Tues 24 Nov	**Debate: Group 2**		
Thurs 26 Nov	**THANKSGIVING**	**NO CLASS**	
Tues 1 Dec	**Debate: Group 3**	TBD	
Thurs 3 Dec	Environmental Justice	TBD	**Debate Response**
Tue 8 Dec	Last Day/Final Review		**Field Trip Write-Up**
FINAL	**WED 16 Dec @ 9:45am-12:00pm**		