



Division: Science
Course name: Environmental Science 2
Section: 1082 / **Semester:** Spring 2015

Instructor Name: Vered Mirmovitch	School Website: www.wlac.edu
Class Hours: Tuesday & Thursday	Address: 9000 Overland Ave., Culver City, CA 90230
9:35 a.m. – 11:00 a.m.	Location: MSA 203
Office Hours: Tuesday & Thursday	Instructor E-mail: MirmovV@wlac.edu
11:00 a.m. – 12:00 p.m.	Location: MSA 203
or by appointment	

ENVIRONMENTAL SCIENCE 2

Course Description

Environmental Science 2 is a course about human' ecological place in the environment, which examines humans' impacts and effects on the natural world. This course is designed to fulfill a non-laboratory science requirement. The course emphasizes principals of ecology, and how human activities impact natural systems. Lecture topics include the scientific method, weather and climate, types of biomes, biogeochemical cycles, ecosystems and food webs, ecological concepts (niche, adaptation, competition, predator/prey and population dynamics), renewable and non-renewable resources, different types of pollutions, climate change and sustaining biodiversity in terrestrial and aquatic environments.

Environmental Science 2 meets 1.5 hours / twice a week for 16 weeks.

It is a 3-unit course.

Student Learning Objectives: A student who completes this class will be able to explain:

- (1) Environmental Science and environmental problems
- (2) the scientific method, experimental design and hypothesis testing
- (3) weather and climate and their impact on nature and human's activities
- (4) the natural biogeochemical cycles, soil structure & function and human activities impact
- (5) Ecosystem level ecological concepts: biomes, food chains & webs, trophic structure and energy flow in ecosystems
- (6) compare marine, fresh water and terrestrial ecosystems
- (7) population ecology ecological concepts: niche, predator/prey, competition
- (8) mechanisms of population dynamics: growth, dispersion, carrying capacity & conservation biology. Explain human population growth and its impact on habitat and biodiversity
- (9) human food production and pest control impact on air and water quality and on biodiversity
- (10) compare renewable and non-renewable energy resources – impacts of extraction, processing, use and longevity
- (11) human impacts caused by over-hunting/fishing, habitat loss and pollution
- (12) principals of sustainable living and mechanisms for sustaining ecosystems and biodiversity

Required & Recommended Books:

1. G. Tyler Miller & Scott Spoolman; Living in the Environment; Cengage Learning Publishers. 18th edition 2015, or 17th edition 2012.

2. Check the class **Dropbox** site regularly for lecture slideshows.

3. **Etude** – Check the site weekly for forum discussion, additional resources and extra credit opportunities.

4. Required environmental movies to watch:

- a. Al Gore's "An inconvenient Truth"
- b. Robert Kenner's "Food Inc."
- d. Josh Fox's "Gas land"
- e. James Blalock's "Extreme Ice"

There are many additional movies and books on environmental issues. You are encouraged to explore and share with classmates using forum discussions in Etude.

Lecture Examination Schedule (Tentative):

EXAMINATION 1.....	MAR 12 9:35 a.m. - 11:00 a.m. (THU)
EXAMINATION 2.....	APR 16 9:35 a.m. - 11:00 a.m. (THU)
EXAMINATION 3.....	MAY 14 9:35 a.m. - 11:00 a.m. (THU)
FINAL EXAMINATION..... (comprehensive)	JUN 2 10:15 a.m. - 12:15 p.m. (THU)

Computation of Course Grade:

3 Midterm Examinations.....	60% of Course Grade
Final Examination.....	40% of Course Grade

You are required to take all 3 lecture examinations. About 50% of the questions on the Final Exam will come from the previous 3 lecture exams. Class participation, extra credit exercises, and forum participation in etude can be accumulated up to additional bonus of 10%.

All examinations will consist of combination of objective-type questions (ie., True/False; Multiple Choice; and Matching questions) that will be answered on **SCAN-TRON (882) forms** and fill-in, drawing, computation and short essay questions. You will be expected to provide SCAN-TRON 882 forms (available at the bookstore) and a **soft lead No. 2 pencil with a good eraser** for each examination for computer scoring. The Final Examination is comprehensive for the entire semester. **There are no make-up examinations.**

Grading Policy:

89 - 100%	A
77 - 88%	B
62 - 76%	C
50 - 61%	D
below 50%	F

Attendance Policy:

Attendance is mandatory. Roll will be taken. There is a strong correlation between poor attendance and poor grades. Please inform the instructor via e-mail if you are going to be absent due to special circumstances. **You are responsible for information, exam announcements, date changes, etc. presented in class, whether or not you are present.** A student who misses more than two class meetings, might be excluded from the class by the instructor.

Students who are given add slips must complete the process by the 3rd class meeting (Sept. 17). No replacement add slips will be signed.

Field Trip – There going to be a mandatory field trip to Hyperion Water Treatment Plant in Playa Del Rey on March 17th. We will meet at the Treatment Plant at 8:50 am. Please arrange a carpool as parking space is limited.

Withdrawal from Class:

You are responsible for your credit and enrollment status. Any student withdrawing from class must inform the admissions office of this decision. **Students failing to follow the correct procedure for withdrawals will receive a grade of "F" for the semester. No withdrawals are permitted after Friday, May. 8.**

(see Schedule, page 1.)

Cheating/Academic Dishonesty:

Each student is expected to do his/her own work on all assignments, reports, examinations, etc. **CHEATING ON AN EXAM WILL RESULT IN AN "F" FOR THE COURSE.**

Here is a list of some actions that are considered cheating:

NO TALKING DURING THE EXAM.

KEEP YOUR EYES ON YOUR OWN EXAM.

USING NOTES OF ANY KIND (ON CARDS, STRIPS OF PAPER, DESK TOP, ETC.) DURING AN EXAM IS NOT PERMITTED.

Showing a fellow student your exam, or passing information in any way is not permitted.

Place your answer sheet(s) directly in front of you.

If you have a question, quietly walk up to the instructor and whisper your question.

Translation dictionaries are not permitted.

Changing the answers on a returned Exam & claiming it was scored wrongly.

All of these demonstrate a lack of Honesty & Integrity which is Essential in all jobs, all relationships, & in all Areas of Life.)

Recommendations for Succeeding in Class:

- 1. Expect to Work. This is not supposed to be easy.**
- 2. Get to class on time, every time, and stay the whole time.**
 - Never miss class unless you're dead, & take good notes.
- 3. Find someone in the class to contact if you miss a meeting.**
- 4. Be organized! Use a daily calendar to set times for regular studying for each of your classes.**
- 5. Study & Review each night the class is given.**
 - Learning is easier if you schedule time daily to read, to think & review.
 - Every time you study. spend at least 10 minutes reviewing previous lessons.
(These "refresher shots" are the secret for long-term memory.)
 - Focus your studying on the class slideshows at the Dropbox site.
 - Read the relevant chapters in your textbook; hi-lite pertinent lines, & add these notes to your class notes (never read without writing).
 - Use the class Etude site.
 - Use associations to help you remember things.
 - Prepare note cards and carry them with you to review.
- 6. Increase your studying the weekend before a scheduled Exam!!**
- 7. Anything you turn-in (exams, reports) should look neat.**

TENTATIVE SCHEDULE OF TOPICS
(schedule subject to change)

Week	Day	Date	Lecture Topic	Textbook
1	T	2/10/15	Introduction	Ch. 1
	TH	2/12/15	Environmental Overview	Ch. 1
2	T	2/17/15	Science, Models and Systems	Ch. 2 (29-38)
	TH	2/19/15	Matter and Energy resources Friday, Feb 20, last day to drop without a "W"	Ch. 2 (38-49)
3	T	2/24/15	Climate and Weather	Ch. 7 (143-148, S21)
	TH	2/26/15	Biomes, Biogeochemical cycles	Ch. 7 (148-159), Ch. 3 (62-70)
4	T	3/3/15	Ecology, Ecosystems, Food Webs	Ch. 3 (51-61)
	TH	3/5/15	Ecology, Ecosystems, Food Webs	Ch. 3 (51-61, 70-75)
5	T	3/10/15	Niche, Competition, Predator/Prey	Ch. 4, 5 (to 111)
	TH	3/12/15	<u>Midterm Exam 1</u>	
6	T	3/17/15	9:00 am Field Trip Hyperion Treatment Plant (be on time!!!)	
	TH	3/19/15	Aquatic Ecology	Ch. 8
7	T	3/24/15	Population Dynamics, Carrying Capacity	Ch. 5 (111-124)
	TH	3/26/15	Human Population Growth, Demography, Carrying Capacity	Ch. 6
8	T	3/31/15	Cesar Chavez Day–No Class!	
	TH	4/2/15	Food Resources (<u>Food Inc.</u>)	Ch. 12 (277-296, 303-315)
9	T	4/7/15	Spring Break No Class!	
	TH	4/9/15	Spring Break No Class!	
10	T	4/14/15	Protecting Food Resources	Ch. 12 (297-303)

TENTATIVE SCHEDULE OF TOPICS
(schedule subject to change)

Week	Day	Date	Lecture Topic	Textbook
	TH	4/16/15	<u>Midterm Exam 2</u>	
11	T	4/21/15	Water Resources	Ch. 13
	TH	4/23/15	Non-Renewable Resources <u>(Gasland 1,2)</u>	Ch. 15
12	T	4/28/15	Non-Renewable Resources <u>(Gasland 1,2)</u>	Ch. 15
	TH	4/30/15	Renewable Energy resources, Energy Efficiency	Ch. 16
13	T	5/5/15	Renewable Energy resources, Energy Efficiency	Ch. 16
	TH	5/7/15	Air, Water and Noise pollution Friday, May 8, last day to drop with a "W"	Ch. 18, 20 (595)
14	T	5/12/15	Air, Water and Noise pollution	Ch. 18, 20 (595)
	TH	5/14/15	<u>Midterm Exam 3</u>	
15	T	5/19/15	Climate Change/Ozone Loss <u>(An inconvenient Truth/Extreme Ice)</u>	Ch. 19
	TH	5/21/15	Sustaining Biodiversity: Species	Ch. 9
16	T	5/26/15	Sustaining Biodiversity: Land Ecosystems	Ch. 10
	TH	5/28/15	Sustaining Biodiversity: Aquatic Ecosystems	Ch. 11
17	T	6/2/15	<u>Final Exam</u> (MSA 203; 10:15 a.m. - 12:15 p.m.)	Cumulative