



**Instructor:** DR. BERAKI WOLDEHAIMANOT

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**Office hours:** M-Th 8:30-9:30 am; W, Th 2:00-5:00 pm and by appointment

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Fall 2014 (Sep 2 to Dec 21, 2014)

Location: MSA 302

Section # 1081

W 5:10-8:25PM

Environmental Science I (3 units)

Course Schedule (Tentative)

MODULES	TOPIC	TEXTBOOK READING
<b>1. INTRO TO ENVIRONMENTAL SCIENCE</b>	<b>1.1.</b> THE PHYSICAL ENVIRONMENT	PAGES 69-84
	<b>1.2.</b> AIR POLLUTION	PAGES 392-418
	<b>1.3.</b> WATER POLLUTION	PAGES 437-461
<b>2. SOURCES OF POLLUTION</b>	<b>2.1.</b> FOSSIL FUELS	PAGES 213-234
	<b>2.2.</b> MINING PROCESSES	PAGES 306-324
	<b>2.3.</b> VOLCANOES	PAGE 82-84
	<b>2.4.</b> AGRICULTURAL ACTIVITIES	PAGES 381-391
<b>1<sup>ST</sup> MID-TERM EXAM (MODULES 1 &amp; 2) – OCT 15</b>		
<b>3. EFFECTS OF POLLUTION</b>	<b>3.1.</b> GLOBAL WARMING	PAGES 419-436
	<b>3.2.</b> GLOBAL DIMMING	PAGES 422-423
	<b>3.3.</b> SEVERE WEATHER	PAGES 78-79; 423-424; 427
	<b>3.4.</b> OZONE DEPLETION	PAGES 404-406
	<b>3.5.</b> ACID DEPOSITION	PAGES 407-410
<b>2<sup>ND</sup> MID-TERM EXAM (MODULE 3) – NOV 19</b>		
<b>4. SOLUTIONS TO POLLUTION</b>	<b>4.1.</b> DEALING WITH GLOBAL CLIMATE CHANGE	PAGES 432-435; 510-511
	<b>4.2.</b> RENEWABLE ENERGY	PAGES 235-247; 260-262
	<b>4.3.</b> NUCLEAR ENERGY	PAGES 247-262
	<b>4.4.</b> PREVENTION, REDUCTION & DISPOSAL OF WASTE	PAGES 481-500
	<b>4.5.</b> CHANGING PERSONAL ATTITUDES & PRACTICES	PAGES 501-516
	<b>4.6.</b> U.S. ENVIRONMENTAL POLICY	PAGES 26-29; 400-403; 457-461; 495-500
<b>FINAL EXAM (MODULE 4) – DEC 17 @ 5:10PM</b>		

**TEXTBOOK:**

Raven, P.H., Hassenzahl, D.M., & Berg, L.R. (2012). *Environment*, 8<sup>th</sup> ed.; John Wiley Publishers; ISBN 978-0-470-94570-4

**TRANSFER:** CSU, UC

**PREREQUISITE:** None

### **COURSE DESCRIPTION:**

This course introduces students with the basics of environmental science. It emphasizes the effects of humans on their physical environment. Topics include: the fundamental elements of the physical environment (with emphasis on atmosphere & oceans), types and sources of air pollution, global climate change (global warming and global dimming), acid rain/deposition, types and sources of water pollution, environmental impacts of producing & using energy from fossil fuels and radioactive materials, environmental impacts of mining and mineral processing procedures, renewable energy sources (solar, wind, water and geothermal) as alternatives to fossil fuel and nuclear energy sources, and thoughts on sustainable living.

### **STUDENT LEARNING OUTCOMES (SLOs)**

*Upon completion of this course the student will be able to:*

1. Describe the natural (i.e. unpolluted) chemical composition of Earth's atmosphere, water, & soil.
2. Define air pollution, water pollution, and soil pollution; describe what chemical compositional changes happen when the atmosphere, water, & soil get polluted.
3. Explain how each of the following impact the environment: mining and mineral refining processes; extraction, transportation, and burning of fossil fuels; industrial and agricultural activities; nuclear energy production procedures, nuclear wastes, and solid & hazardous wastes.
4. Discuss the main factors that cause global climate change (global warming, global dimming, and severe weather) and discuss ways of mitigating global climate change.
5. Discuss methods and ways of harnessing renewable energy resources for a sustainable living: solar, wind, geothermal, biomass, running water, and ocean waves.

### **CLASS ATTENDANCE, IN-CLASS USE OF LAPTOPS, TABLETS (IPAD ETC.), VOICE RECORDERS & CAMERAS**

It is required that students arrive in class on time. Occasional tardiness of up to 10 minutes may be tolerated. However, no student will be allowed to enter the classroom 10 minutes after the start of the class.

Students who want to use laptops and tablets (such as iPad etc.) while class is in session can use them under the following conditions: (1) the laptops and tablets can only be used to read lecture notes from Etudes, or to take notes. Unless explicitly announced, no web browsing or electronic communication is allowed! (2) the student sits in the front row of seats. If the Instructor suspects that a student may be doing other activities with the computer other than those described above, the instructor reserves the right to see what the student is doing and can prohibit the student from using the computer.

Voice or video recording of lectures using a recording device may be allowed if in the instructor's judgment there is a need for a student to do so. However, students should seek prior approval from their instructor.

Taking pictures or screen shots of PowerPoint presentations or other lecture items from the white board or projector screen are NOT allowed. The reason is simple: they destruct the smooth flow of the teaching-learning process. Thus, unless explicitly approved by the instructor, students cannot use their cell phones or other devices to take pictures during lecture hours.

Students are responsible for all academic-related material, assignment, or information missed when absent. These include lectures, handouts, class activities, assignments, or any course-related information.

### **SUPPLEMENTAL RESOURCES ON ETUDES:**

PowerPoint lecture notes (including the course syllabus), assignments, and other announcements, will be posted on *Etudes*. Instructions on how to log on to the *Etudes* website will be emailed to all course participants who have valid email address with the College.

Students can read online or print the lecture notes for their personal use. It must be noted that the supplemental resources are meant to enhance the course delivery system; they are by no means a replacement to attending class. Students will be required to attend classes regularly.

Please note that if you have any questions you will need to contact me using my college email, not via *Etudes*. If you send private messages via *Etudes* you will not get any response from your instructor.

### **ASSESSMENT AND GRADING:**

Assessment will include two midterm exams, a final exam, and several in-class and homework assignments. There will also be one optional extra credit assignment worth 15 points.

Examination questions will be any combinations of multiple choices, True/False, matching, fill-in-the blank and short-answer/essay type. Questions will be drawn from topics covered or contained in any one or more of the following: lectures, textbook, handouts (lecture notes), in-class video shows, and other suggested reading (textbook or other sources) or video assignments given by instructor. The final exam is NOT comprehensive. However, as most of the modules have substantial overlaps; questions from topics covered in previous modules may be included.

All exams are closed-book and closed-note. During the examinations any printed or hand-written papers, related or unrelated to the exam are NOT allowed. If any of these are found in your possession during an exam, these will be considered as cheating and will be reported to College authorities for appropriate action.

During exams use of electronic media (e.g. cell phone, laptop, tablet, including listening to music from iPods etc.) is not allowed. All electronic media should remain switched off for the entire duration of the exam. If there is a need for their use, this must be first approved by the instructor; use of such media without instructor's approval, will constitute cheating and will be reported to college authorities.

Remember that this course is going to be highly interactive; there will be numerous class activities and class/homework assignments where students will be required to answer questions &/or critique and evaluate videos and literature related to environmental issues. These activities, distributed throughout the semester, are worth 100 points.

All assignments must be turned-in on or before the specified due dates. No late submissions will be accepted! All homework assignments have to be typed, not hand-written! Students who fail to meet these guidelines will not receive any credit.

#### Your final grade will be determined by the following:

1 <sup>st</sup> Mid-term exam	100 points
2 <sup>nd</sup> Mid-term exam	100 points
Final exam	100 points
Assignments	100 points
<u>Extra Credit Assign</u>	<u>[15 points]</u>
<b>TOTAL</b>	<b>400 points</b>

#### Final letter grades will be assigned as follows:

<b>A:</b>	≥360 points
<b>B:</b>	320-359 points
<b>C:</b>	240-319 points
<b>D:</b>	160-239 points
<b>F:</b>	<160 points

Students must bring SCANTRON (Form 882 E), a pencil and an eraser to each exam.

Final grades for the course will be posted on the College's "Student Information System" within 10 days after the final exam. To log on to the site open the college's webpage ([www.wlac.edu](http://www.wlac.edu)) and click the button titled "Student Information System (SIS)".

**POLICY ON EXAM MAKE-UPS**

Students should take exams on the scheduled dates; otherwise they will score zero points for that exam. There will be NO make-up exams except for valid and verifiable reasons (for example, if you were ill, you must submit a doctor’s note). If you have a problem on the day of the exam you, your relatives or friends must e-mail or call your instructor before the scheduled exam time. Make-up exams, when approved, will take place on a date determined by your instructor.

**POLICY ON ACADEMIC HONESTY & CONDUCT IN CLASS**

Pursuant to West Los Angeles College’s [WLAC] policy on student conduct, all forms of disruptive behaviors such as private talking, use of cell phones and texting while class is in session, as well as going out of class to answer or make a call etc. will not be allowed. These behaviors detract from the learning experience of others in the class. Students should make certain that cell phones are turned off before entering the class. In addition, eating &/or drinking beverages (except water) in the classroom, as well as chewing gum are prohibited. These and other college policies on academic integrity (cheating, plagiarism) will be strictly enforced. Students should read WLAC’s publication on all aspects of student conduct outlined in the most recent College Catalog or by logging onto the College website at [http://www.wlac.edu/academics/pdf/WLAC\\_12-14Catalog\\_FRONT.pdf](http://www.wlac.edu/academics/pdf/WLAC_12-14Catalog_FRONT.pdf).

*Consequences of Misconduct:* Violators of College regulations and rules are subject to disciplinary action under Board Rule 9803.15 of the Los Angeles Community College District. Depending upon the seriousness of the conduct, disciplinary procedures may range from a warning to removal from the class with a referral to the Vice President of the College.

**DEADLINES**

Students should adhere to Add/Drop policies & deadlines of the College. It is the student’s responsibility to officially drop out of the course, when he/she stops attending. Otherwise, grades other than a “W” may be assigned.

*Remember, if you decide to withdraw from the course, you must file appropriate papers in the Admissions Office.*

**STUDENTS WITH DISABILITY**

If a student has disability (with special physical, communication or learning needs) and requires accommodations, he/she should contact the Disabled Students Programs & Services (DSPS) located on the first floor of the Heldman Learning Resources Center (HLRC). DSPS’ phone number is (310) 287-4450.

**IMPORTANT DATES:**

<u>Last day to:</u> Drop a class without a fee: <u>Sep 12</u> Drop a class without a "W": <u>Sep 12</u> Drop a class with a "W": <u>Nov 21</u>	<u>College is closed on the following days</u> <u>Labor Day:</u> Sep 1 <u>Veteran’s Day:</u> Nov 11 <u>Thanksgiving:</u> Nov 27-30
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*This syllabus may be modified in order to better meet student needs or in the event of an emergent matter.*