



## Course Syllabus

Environmental Science ENVR 1301 – CNR- 35884  
Spring Semester 2013 Class Meeting Monday and  
Wednesday 8:00AM TO 9:30AM at WLOPC 221

### Instructor

Dr. JALALUDDIN QURESHI, Ph.D.

Office Hours: before and after class, by appointment

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Course Semester Credit Hours

Credit Hours 3.00

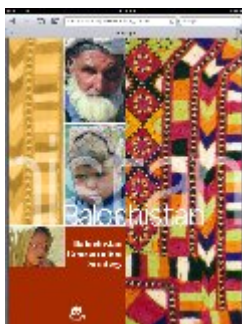
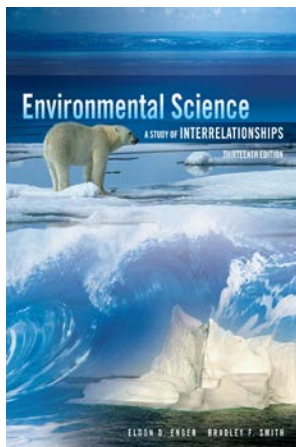
Lecture Hours 3.00

**Total Course Contact Hours 48.00**

**Course Length 15 Weeks**

### Instructional Materials

Environmental Science, A Study of Interrelationships,  
13th Edition, Eldon Enger and Bradley F Smith, Softcover,  
467 pages, ISBN- 978-0-07-338327-9



Use FOR REFERENCE

BALUCHISTAN CONSERVATION STRATEGY  
REPORT (IUCN)

**Type of Instruction** : lecture and Home work .

**Course Prerequisite(s)** FREQUENT REQUISITES

GUST 0342 9<sup>th</sup> -11<sup>th</sup> Grade

ENGL 0310 or 0349

### **Course Description:**

ENVR 1301 is a study of the world's Ecosystem, Energy, Pollution and Environmental Policy, emphasizing the Ethics and Environmental Inter-relationships, Ecological Principles, Biodiversity, and Human Population issues. It also examines the importance of Fossil fuels, Nuclear and renewable energy sources. Soils and Agricultural methods, Land use and Water management are examined, as well as Pollution issues and Environmental Policies. This is a core Curriculum Course.

B, World water Day 2013.UN.

The class will discuss the water issues and celebrate (WWD) and present the article a head of time and it will be distribute to the class along with series of question during the class you will be graded on choosing the article 'presentation and discussion.

### **Course Prerequisites:**

Completion of developmental English classes (ENGL 0310/0349 or higher), or passing grades on the English portion of the college assessment exam, and GUST 0342 are prerequisites.

### Program Learning Outcomes:

This course is intended for students majoring in one of the physical sciences or life sciences. It is also beneficial to students who are preparing themselves for higher level science courses in their respective curriculum.

### Course Student Learning Outcomes:

Upon completion of this course, student should acquire the knowledge in the field of Environmental Science that he or she can organize, analyze and learn to apply within the field of their choice. The instruction strives to provide:

A transferable science core elective to cross discipline major

Scientific instruction to a culturally diverse student body

Information to strengthen the problem-solving abilities to those who are deficient in Science and Mathematics

The tools necessary to interpret environmental conditions/phenomena that may affect the student in his or her future.

Classroom discussion, take-home assignments, written examination and verbal presentations will measure the student's achievements as part of the successful completion of the course.

### Learning Objectives

1. Recognize that environmental problems involve social, ethical, political, and economic issues, not just scientific issues.

2. Identify environmental problems with geographical regions.

#### Level 2: Comprehension

1. Explain the main sources of energy in terms of nonrenewable energy and renewable energy.

2. Summarize the use of electrical energy to consumption of fossil fuel and renewable. 3. Demonstrate the personal per capita energy consumption of US households.

#### Level 3: Application

1. Calculate US population growth through the use of WEB resources.

2. Classify the four categories of limiting factors.

3. Illustrate the typical Population Growth Curve.

#### Level 5: Synthesis

1. Hypothesize the use of the Scientific method in solving environmental issues.

2. Compare the different forms of energy.

3. Discuss the concept of energy conversion and efficiency.

#### Level 1: Knowledge

1. Current events from WEB research covering political and economic discussions concerning the environment.

2. Outline major geographical environmental problems through DVDs and class discussions.

#### Level 2: Comprehension

1. Compare the use of fossil fuel consumption to renewable energy (wind, solar, biomass and hydroelectric).

#### Level 3: Application

1. Utilizing data from the US consensus Bureau at <http://www.census.gov/> apply US birthrate, death rate to total population growth.

2. List the four categories of limiting factors (raw materials, energy, waste products and interactions among organisms).

3. Interpretation of the population growth curve (lag, exponential growth, deceleration, stable equilibrium and death).

#### Level 5: Synthesis

1. Discuss the reliability of science through the Scientific Method in resolving environmental problems.

2. Discuss the forms of matter (solid, liquid, or gas) in relation to kinetic and potential energy.

3. Support the notion that energy cannot be created nor destroyed, but when energy is converted from one form to another, some energy is converted into a less useful form.

Tentative Schedule:

week 01 Mon , January 14	Introduction, Syllabus review, Master email list, Presentation date assignments
01 Wed January, 16	Chapter 1: Environmental Interrelationships
02 Mon , January 21	HCC CLOSED MARTEN LITHER KING JR HOLIDAY
02 wed, January 23	Chapter 2 Environmental Ethics
03Mon –wed , January 28 & 30	Chapter 3 Environmental Risk – Economics, Assessment, and Management
04 Mon – wed , Feb 4 & 6	Chapter 4 Interrelated Scientific Principles – Matter, Energy, and Environment
05 Mon , February 11	Exam I - Selection of Presentation Topic Due
05 Wed, February 13	Chapter 5 : Interactions – Environments and Organisms
06 Mon , February 18	No Class – President's Day
06 ,wed February 20	Chapter 6 : Kinds of Ecosystems and Communities
07Mon-wed , February 25,27	Chapter 7: Populations – Characteristics and Issues
08 Mon –Wed March 4,6	Chapter 8 : Energy and Civilization – Patterns of Consumption
09 Mon-wed March 11,13	No Class 11 <sup>th</sup> -17 <sup>th</sup> spring Break , office closed
10Mon March 18	Exam 2
10 Wed March 20	Nonrenewable energy source's Chapter :9
11Mon -Wed March 25,27	Nonrenewable energy source's Chapter :9 continue and Renewable Energy sources chapter 10
11 Mon day April 1,	With Draw Dead line Mon day APRIL 1, 4:30PM
12Mon –wed April 1,3	Chapter 11 Bio diversity issue
13 Mon –WED April 8 ,10	Chapter 13. Soil and Its Uses
Fri , March 22,	Fri , March22,WORLD WATER DAY CELLIBRATION 2013 W.W.D 20W
14 Mon –wed April 15 , 17	Chapter 15 : Water Management
15Mon wed April 22,24	Chapter 15 : Water Management continue Chapter 16 : Air Quality Issues (office closed March ,29 <sup>th</sup> - 31 <sup>st</sup> SPRING Holiday )
16 wed April 29May	Chapter 16 : Air Quality Issues
Wed , April 3	Final Exam 8:00 AM, May 6

### ➤ Related activities for students During course / Training.

- Organizing world water Day on 22<sup>nd</sup> March 2013 and presentations in work shop. Showing educational documentaries on energy "SWITCH" DVD / BLU-RAY, Question / Answer. [www.switch.org](http://www.switch.org)
- Visit of Surface Water Treatment Plant, Missouri City, Texas.
- Visit of ALS Environmental company [www.alsglobal.com](http://www.alsglobal.com) soil and water Analysis Laboratory
- VISIT OF industries Subject to facility available.

### Instruction Methods:

Environmental Science is a very complex subject and also a very controversial one.

While the primary focus of the course will be on recommended text book primarily covered through class lectures including illustrations, animations; considerable knowledge in this field can be gained through assignments and group discussions. Thus, the Lecture material will not only correspond to the topics covered in the required textbook, but will include more detail on certain topics. Topics and concepts covered during lecture or included in the assigned reading will be included in exams.

**Note that your instructor reserves the right to change the schedule as needed at any point during the course.**

### Student Assignment

Students are required to read assigned chapters and outside materials, and complete any "Take Home Assignments". Each assignment is due after "one" week. Quizzes will make up 30% of Total Grade. None of the quizzes will be dropped. Additional assessment will include articles presented to the class. These articles (10 in number) must be current and pertinent to the subject matter being discussed in class. Articles must be submitted with a typed summary, otherwise will not be accepted. Because of the limited time, students should limit themselves to two articles during any one class period.

### Student Assessment

Students' research and writing competence will be assessed via a Term Paper using the MLA Format (5-6 pages). The Term Paper will make up 15% of the Total Grade. Each student will also make an oral presentation of the Term Paper using Power Point or any other media, but there should be no reading from report. The oral presentation will make up 15% of the Total Grade.

Additional assessment will include a Final Comprehensive Exam (see Syllabus-30%) and "class participation/attendance" (10%) -

### Instructional Materials

ENVR 1301 Textbook: Environmental Science 13th Edition: Eldon Enger & Bradley F. Smith ISBN- 978-0-07-338327-9. McGraw Hill-Publisher:

### HCC Policy Statement: ADA.

Any student with a documented disability (e.g. physical, learning, psychiatric, vision, hearing, etc.) who needs to arrange reasonable accommodations must contact the Disability Services Office at the respective college at the beginning of each semester. Instructors are authorized to provide only the accommodations requested by the Disability Support Services Office. If you have any special needs or disabilities that may affect your ability to succeed in college classes or participate in any college programs or activities, please contact the DSS office for assistance. At Southwest College, contact:

Dr. Becky Hauri

5407 Gulfton

Houston, Texas 77081 Phone: 713-718-7909

Fax: 713-718-7781

TTY: 713-718-7909

### HCC Policy Statement: Academic Honesty

Students are responsible for conducting themselves with honor and integrity in fulfilling course requirements. Disciplinary proceedings may be initiated by the college system against a student accused of scholastic dishonesty. Penalties can include a grade of "0" or "F" on the particular assignment, failure in the course, academic probation, or even dismissal from the college. Scholastic dishonesty includes, but is not limited to, cheating on a test, plagiarism, and collusion.

### HCC Policy Statement: Student attendance, 3-peaters, withdrawal deadline

Attendance Students are expected to attend classes regularly. Students are responsible for materials covered during their absences, and it is the student's responsibility to consult with instructors for make-up assignments.

Instructors check class attendance daily. A student may be dropped from a course for excessive absences after the student has accumulated absences in excess of 12.5% of the hours of instruction (including lecture and laboratory time).

Habitual tardiness will not be tolerated. Students are expected to be in attendance for the entirety of the scheduled class and are responsible for completing assignments scheduled during their absence/s. It is the responsibility of each student to amend their professional/personal schedule to meet the class schedule

### Repeaters

Students who repeat a course for a third or more times may soon face significant tuition/fee increases at HCC and other Texas public colleges and universities. Please ask your instructor / counselor about opportunities for tutoring / other assistance prior to considering course withdrawal or if you are not receiving passing grades.

### Withdrawals

Withdrawal from the course after the official day of record (see current catalog) will result in a final grade of "W" on the student transcript and no credit will be awarded. It is the student's responsibility to initiate and complete a request for withdrawal from any course. Students will be required to formally request a drop from their instructors prior to the administrative drop date deadline (November 2nd, 2012). Abandoning the course or failing to formally drop, will result in a grade being given based on the work completed for the entire course (including missed exams).

The State of Texas has begun to impose penalties on students who drop courses excessively. For example, if you repeat the same course more than twice, you have to pay extra tuition. The Texas Legislature has passed a law limiting first time entering freshmen to no more than SIX total course withdrawals throughout their educational career in obtaining a certificate and/or degree.

Receiving a "W" in a course may affect the status of your student Visa. Once a W is given for the course, it will not be changed to an F because of the visa consideration. Please contact the International Student Office at 713-718-8520 if you have any questions about your visa status and other transfer issues

### Instructor Requirements:

## **Basic requirements**

Students should be on time for class and be prepared with required materials including textbook and lab manual. Full class attendance is required including lecture and lab portions. Full attention during lecture is required.

## **Phones/electronic devices**

Absolutely no phone or other personal electronic devices are to be used during class. This includes making or taking a call, reviewing messages, texting, playing games, checking email, surfing the web, anything that involves a phone or other personal electronic device. If your work or family situation requires that you be available via phone, your phone can be on vibrate mode and you can take the call during our regular scheduled breaks or you can exit the class to review the call. Notify your friends, family, employers, and anyone else who regularly contacts you that you will be in class and that you should be contacted only when necessary. The taking of calls during class is not only disruptive but it is also discourteous to classmates and the instructor.

## **Testing procedures**

Be sure to arrive early for your examinations. There are time limits for exams. You will not be given extended time for testing if you arrive late.

**Entering and exiting the lecture room or lab room is not permitted once exams have begun. Please be sure to use bathroom before or after.**

Do not come late to the class or leave early. The absences, late entrances or leaving the class early will be recorded in the attendance sheet and submitted to the Department.

Please buy yourself a good eraser, CD, Scale etc. when you have written exams. In my experience, the students perform the best when they take active interest in attending the lectures and reading the textbook. Each student must understand the consequences of CHEATING, PLAGIARISM and COLLUSION (see Student Handbook) and the fact that such action(s) could result in a grade of "F" in that specific activity, failure in the course, and/or recommendation for probation or dismissal from College System.

## **Department**

Students are expected to conduct themselves as adults. This includes courteous and respectful behavior towards instructor and classmates. Disruptive behavior or any behavior that interferes with any educational activity being performed by the instructor will not be allowed. Additionally, no student may interfere with his/her fellow students' right to pursue their academic goals to the fullest in an atmosphere appropriate to a community of scholars. Disruptive behavior may result in removal from the class.

## **GRADING**

HCC Grading Scale:	A = 90 -100% B = 80 - 90% C = 70 - 80% D = 60 - 70% F = less than 60%

## **Instructor Grading Criteria:**

Students must adhere to testing schedule. Failure to take a test will result in a "0" for the missed exam. Exceptions include work, family, or personal (health) emergency, and must be documented.

Only one make-up exam per semester is allowed (with proper documentation) and must be arranged with instructor ASAP.

## **Examination format**

Lecture exams will include multiple choice questions and essay/short answer questions.

**Grade Calculation is based on:**

Assessment Activity	Total Grade %
QUIZZES	30
Final Exam [Comprehensive]	30
Term Paper	15
Term Paper Oral Presentation	15
Class Participation/Attendance	10
Final Score	100



### Recommendations for Success:

- Learning is an active process and it requires time, effort, energy and perseverance. It requires practice and your dedication.
- Attend class: Log on every day. Spend sufficient time reading the material given in notes and in chapters. It is your money, time and education.
- Preview the assigned chapters in the text. Read the concepts and overview of the chapter. Review the headings, illustrations and Tables in the chapter. Read the summary of the chapter.
- For effective learning and success, read, write and recite. Repeat words aloud and create concept maps to summarize the material.
- You may require a minimum of 1-2 hour to review each “class lecture”.
- Utilize CD and other visual aids that are on the Learning Web.
- Write answers to review questions and review from other sources as mentioned in class.
- Be prepared to write short answers to critical thinking questions and develop problem solving skills.

### Some Suggested Presentation Topics Include:

- |   |  |
|---|--|
| 1) ENVIRONMENTAL ISSUES WORLD WIDE.                 | 16) Antarctica Resource Refuge                             |
| 2) Acid Rain in the USA                             | 17) Corporate Responses to Environmental Concerns          |
| 3) Environmental Degradation in Eastern Europe      | 18) Fire as a Forest Management Tool                       |
| 4) Capturing Oil in the Persian Gulf                | 19) Biological Indicators of Contamination                 |
| 5) Rainforest Products                              | 20) Contaminated Community Clean-up                        |
| 6) Are Fuel Cells the Future                        | 21) Water Conservation                                     |
| 7) Costa Rican Forests                              | 22) Colorado River Restoration                             |
| 8) China's Impact on Global Environment             | 23) Regulation of Pesticides                               |
| 9) Pakistan or India's Impact on Global Environment | 24) Computer Tools to Aid in Environmental Decision Making |
| 10) Hydroelectric Impact on Global Environment      | 25) Birth Defects Caused by Environmental Toxins           |
| 11) Contaminated Soils in USSR                      | 26) Native American Fishing Rights                         |
| 12) International Whaling                           | 27) Recyclable Materials                                   |
| 13) Lead, Mercury, Radon Poisoning                  | 28) Global Impact of Food Additives                        |
| 14) Worldwide Soil Degradation                      | 29) Environmental Impact of Mining in Arizona              |
| 15) Restoring Ecosystems                            | 30) Renewable Energy Sources                               |
|   | 31) Films / Movie Awareness of Environments and issues     |
|   | 32) Green energy   |
|   | 33) Drought and its Mitigation                             |
|   | 34) Texas Fracking , Natural Gas Drilling                  |

