COURSE OUTLINE FOR
ENVR 1301-0094 Environmental Science
Spring 2011
Class Number: 65796

Time and location
5:30-8:30 PM  Tuesdays  Stafford Center, Room S114

Instructor
Dr. Klaus Stark
Office Hours:  Fridays immediately after the class
E-mail:  klausstark@earthlink.net
Web site:  http://learning.hccs.edu/faculty/klaus.stark
Homepage:  http://southwest.hccs.edu/portal/site/southwest/

Materials Needed

Textbook:  Environmental Science: A Study of Relationships, by Eldon D. Enger and Bradley F. Smith, 12th Ed, McGraw Hill,
ISBN 978-007-3383200

Enthusiasm, willingness to learn, and participation are absolute necessities!

Course Catalog Description
Environmental Science (ENVR 1301) is designed as an introductory one-semester science lecture course for non-science majors. It is also appropriate for students intending to major in geology or any discipline involving the environment. The course may also be utilized as an elective for students wishing to obtain a broad introduction to the sciences and their application to humanity's impact on the planet.

Course Prerequisites
None

Course Intent
Environmental Science is an eclectic science, developed by selecting what appears to be best in various doctrines and is fundamental to the functioning of society. The study of environmental science is essential to the understanding of the environment, the world economy, and the daily exposure to geological hazards, such as: earthquakes, volcanism, subsidence, and floods. With this charge the mission of the discipline is to provide:
* The tools necessary to interpret and predict geological phenomena that may affect the student in his or her future.
* Transferable science core electives to the cross discipline major.
* Science instruction to a culturally diverse student body.
* Information to strengthen the problem-solving abilities to those who are deficient in science and mathematics.

**Course Content**
Common Core Elements
The core elements should comprise 80% of the course.

A. Environmental Interrelationships and Humanity:
To familiarize the student with the complexity of interrelationships inherent with humanity's impact on the world and the ethical and moral attitudes of society in shaping environmental thinking.

B. Ecological Principles and Their Application:
To acquaint the student with the ecological principles that are basic to an understanding of environmental interactions and the flow of matter and energy in ecosystems. The implication of human population growth and human population structure to the world's ecosystems should be emphasized.

C. Energy:
To enable the student to realize the historic importance of fossil fuels, which have been responsible for the development of the major economies of the world, and the problems of developing alternate fuels such as nuclear power.

D. Human Influences on Ecosystems:
To familiarize the student with land, water, and soil use practices and their impact on the natural ecosystem.

E. Pollution and Policy:
To acquaint the student with major types of air pollution, solid waste pollution, and hazardous and toxic waste pollution. Specific U.S. government policy dealing with pollution should also be emphasized.

The core elements should comprise 80% of the course.

**Attendance Policy**
The HCCS attendance policy is stated in the Schedule of Classes: “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. Class attendance is checked daily by instructors. Although it is the responsibility of the student to drop a course for non-attendance, the instructor has full authority to drop a student for excessive absences. 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).”

If circumstances significantly prevent you from attending classes, please inform me. I realize that sometimes outside circumstances can interfere with school, and I will try to be as accommodating as possible, but please be aware of the attendance policy.

**Last Day for Administrative and Student Withdrawals**
This date is stated in the Schedule of Classes. After the withdrawal date no W can be given, you must receive a regular grade (A-F) in the course. I urge any student who is contemplating withdrawing from the class to see me first! You may be doing better than you think. Either way, I want to be accessible and supportive. I do not believe in "weed out" classes, and I consider you to be much more than just a name or
If you need assistance, do not hesitate to contact me (my phone number and e-mail address are listed above). I'm here to help.

**New Policy Regarding Withdrawals**
Students desiring to withdraw from a class must do so by the withdrawal date by filling out a withdrawal form at the registrar’s office. *After this date, instructors can no longer enter a grade of “W” for the course for any reason.*

**New Policy Regarding Multiple Repeats of a Course**
“NOTICE: Students who repeat a course three or more times may soon face significant tuition/fee increases at HCC and other Texas public colleges and universities. If you are considering course withdrawal because you are not earning passing grades, confer with your instructor/counselor as early as possible about your study habits, reading and writing homework, test-taking skills, attendance, course participation, and opportunities for tutoring or other assistance that might be available.

**Disability Support Services (DSS)**
HCCS is committed to compliance with the American with Disabilities Act and the Rehabilitation Act of 1973 (section 504)

"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. Faculty are authorized to provide only the accommodations requested by the Disability Support Services Office”

If you have any special needs or disabilities which may affect your ability to succeed in college classes or participate in college programs/activities, please contact the office of disability support services at the college. Upon consultation and documentation, you will be provided with reasonable accommodations and/or modifications. Please contact the DSS office as soon as you begin the term. For questions, contact Donna Price at 713 718 5165 or the Disability Counselor at HCC-Southwest: Dr. Becky A. Hauri at 713 718 7909; also see the Schedule of Classes for additional DSS numbers.

Also visit the ADA web site at: [http://www.hccs.edu/students/disability/index.htm](http://www.hccs.edu/students/disability/index.htm). Faculty Handbook/ Faculty Orientation is also available at [http://www.hccs.edu/students/disability/faculty.htm](http://www.hccs.edu/students/disability/faculty.htm)

**Academic Honesty**
HCCS is committed to a high standard of academic integrity in the academic community. In becoming a part of the academic community, students are responsible for honesty and independent effort. Failure to uphold these standards includes, but is not limited to, the following: plagiarizing written work or projects, cheating on exams or assignments, collusion on an exam or project, and misrepresentation of credentials or prerequisites when registering for a course.

When there is clear evidence of cheating, plagiarism, collusion or misrepresentation, a faculty member will take disciplinary action including but not limited to: requiring the student to retake or resubmit an exam or assignment, assigning a grade of zero or “F” for an exam or assignment; or assigning a grade of "F" for the course. Additional sanctions, including being withdrawn from the course/program or expelled from school, may be imposed on a student who violates the standards of academic integrity. See the Student handbook for additional details

I do not anticipate this behavior, nor will I tolerate it. The selfish acts of one individual can nullify the hard work and accomplishments of all the other students who have labored to achieve excellence.
in their academic careers. This is not only a matter of personal integrity of each individual; it is a critical aspect of the reputation of our college. If there is any part of this statement that you do not understand, please ask for clarification by the instructor.

Course Syllabus and Class Schedule are subject to modification. Students will be notified of any changes.

HCCS Sexual Harassment Policy
HCC shall provide an educational, employment, and business environment free of sexual harassment. Sexual harassment is a form of sex discrimination that is not tolerated at HCC. Any student who feels that he or she is the victim of sexual harassment has the right to seek redress of the grievance. HCC provides procedures for reviewing and resolving such complaints through its Grievance Policy. Substantiated accusations may result in disciplinary action against the offender, up to and including termination of the employee or suspension of the student. In addition, complainants who make accusations of sexual harassment in bad faith may be subject to equivalent disciplinary action.

Exams and Make-up Policy
Examinations will consist of four non-cumulative regular exams plus a comprehensive final. Make-up exams will not normally be given, so make every effort to take the exams on their scheduled dates. In the event that you must miss one and only one regular exam, the final exam grade may be substituted for the missed exam. Remember that the final exam will be comprehensive and is usually more difficult than the regular exam (meaning that it will cover all of the material from the whole semester, not just the last part). If you do not miss any of the regular exams, I will replace your lowest exam score with your final exam score if the final exam grade is higher.

Please note: 1) All students are required to take the final (no student can be exempted), 2) After the withdrawal date no W can be given. You must receive a regular grade (A-F) in the course.

Assignments
1) A term paper on a topic concerning Environmental Science will be assigned to each person at the beginning of the semester. This 5 to 8 page paper (hard copy and Floppy disc) and an oral presentation (of it) are required for attaining a grade of B or better.

Grading
The overall score is based on the following:

<table>
<thead>
<tr>
<th>Four/Five regular exams</th>
<th>Term Paper and Presentation</th>
<th>Quizzes/Assignments</th>
<th>Final exam</th>
</tr>
</thead>
<tbody>
<tr>
<td>50%</td>
<td>20% (10% each)</td>
<td>20%</td>
<td>10%</td>
</tr>
</tbody>
</table>

Overall Score = 0.50(Average of four regular exams) + 0.20(term paper and presentation) + 0.10(Final Exam) + 0.2 (quizzes/assignments)

The course grade is then obtained from the overall score:

<table>
<thead>
<tr>
<th>Final Average</th>
<th>90 - 100</th>
<th>80 – 89</th>
<th>70 – 79</th>
<th>60 – 69</th>
<th>&lt; 60</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter Grade</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>F</td>
</tr>
</tbody>
</table>
Important Dates:

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>November 1</td>
<td>Monday</td>
<td>Registration Begins</td>
</tr>
<tr>
<td>November 18</td>
<td>Thursday</td>
<td>Application Deadline for International Students Outside the U.S.</td>
</tr>
<tr>
<td>December 1</td>
<td>Wednesday</td>
<td>Veteran’s Advanced Pay Application deadline for Spring</td>
</tr>
<tr>
<td>December 20-31</td>
<td></td>
<td>Offices Closed- Christmas Holiday Break</td>
</tr>
<tr>
<td>January 14</td>
<td>Thursday</td>
<td>Last Day for 100% Refund</td>
</tr>
<tr>
<td>January 17</td>
<td>Monday</td>
<td>Offices Closed- Martin Luther King, Jr. Observed</td>
</tr>
<tr>
<td>January 18</td>
<td>Tuesday</td>
<td>Classes Begin- Drop/Add/Swap Fee ($15.00) Begins</td>
</tr>
<tr>
<td>January 18-2</td>
<td></td>
<td>70% Refund</td>
</tr>
<tr>
<td>January 19</td>
<td>Wednesday</td>
<td>Registration Ends</td>
</tr>
<tr>
<td>January 19</td>
<td>Wednesday</td>
<td>Last Day for Drop/Add/Swap</td>
</tr>
<tr>
<td>January 31</td>
<td>Monday</td>
<td>Official Date of Record</td>
</tr>
<tr>
<td>February 4-5</td>
<td></td>
<td>25% Refund</td>
</tr>
<tr>
<td>February 15</td>
<td>Tuesday</td>
<td>Priority Deadline for Spring Completion of Degree or Certificate</td>
</tr>
<tr>
<td>February 21</td>
<td>Monday</td>
<td>Office Closed- Presidents Day Holiday</td>
</tr>
<tr>
<td>March 14-20</td>
<td>Mon-Sun</td>
<td>Office Closed- Spring Break</td>
</tr>
<tr>
<td>April 14</td>
<td>Thursday</td>
<td>Veteran’s Advanced-Pay Application Deadline for Summer Session</td>
</tr>
<tr>
<td>April 14</td>
<td>Thursday</td>
<td>Last Day for Administrative/Student Withdrawals- 4:30pm</td>
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<tr>
<td>April 15</td>
<td>Friday</td>
<td>Deadline for Spring Federal Student Loans</td>
</tr>
<tr>
<td>April 22-24</td>
<td>Fri-Sun</td>
<td>Office Closed- Easter Holiday</td>
</tr>
<tr>
<td>May 6</td>
<td>Sunday</td>
<td>Instruction Ends</td>
</tr>
<tr>
<td>May 9-15</td>
<td>Mon-Sun</td>
<td>Final Examinations</td>
</tr>
<tr>
<td>TBA</td>
<td></td>
<td>Graduation Exercises</td>
</tr>
<tr>
<td>May 15</td>
<td>Sunday</td>
<td>Semester Ends</td>
</tr>
<tr>
<td>May 15</td>
<td>Monday</td>
<td>Grades Due by- 12:00 Noon</td>
</tr>
<tr>
<td>May 20</td>
<td>Friday</td>
<td>Grades Available to Students</td>
</tr>
<tr>
<td>June 30</td>
<td>Thursday</td>
<td>Financial Aid Priority Deadline for Returning Students</td>
</tr>
</tbody>
</table>

COURSE SCHEDULE

<table>
<thead>
<tr>
<th>Week</th>
<th>Lecture Topic/Exam schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction/ Overview of Course Assignments. Environmental Interrelationships; Ch 1 Environmental Ethics; Ch 2</td>
</tr>
<tr>
<td>2</td>
<td>Environmental Risk and Economics; Ch 3 Interrelated Scientific Principles; Ch 4</td>
</tr>
<tr>
<td>3</td>
<td>Exam 1(Ch 1-2) Interactions: Envir. And Organisms; Ch 5 Kinds of Ecosystems and Communities; Ch 6</td>
</tr>
<tr>
<td>4</td>
<td>Exam 2 (Ch 3-5) Population principles; Ch 7 Biodiversity; Ch 11</td>
</tr>
<tr>
<td>5</td>
<td>Energy and Civilization; Ch 8 Energy Sources; 9</td>
</tr>
</tbody>
</table>
Exam 3 (Ch 6, 7, 11, 8)
Nuclear Energy; Ch. 10

Soil and its uses; Ch 13
Water Management; Ch 15

Air Quality Issues; Ch 16
Solid Waste Management; Ch 17

Term Papers Due

Exam 4 (Ch 9, 10, 13, 15)
Environmental Regulations: Hazardous Materials; Ch 18
Environmental Policy and Decision Making; Ch 19

Exam 5 (Ch 16, 17, 18, 19)
Oral Presentations

Final Examination May 10 (comprehensive)

EXAMS SCHEDULE

<table>
<thead>
<tr>
<th>Date</th>
<th>Exam</th>
<th>Chapters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb 1*</td>
<td>EXAM 1</td>
<td>1 &amp; 2</td>
</tr>
<tr>
<td>Feb 8*</td>
<td>EXAM 2</td>
<td>3 -- 5</td>
</tr>
<tr>
<td>Feb 22*</td>
<td>EXAM 3</td>
<td>6, 7, 11, 8</td>
</tr>
<tr>
<td>Mar 22*</td>
<td>EXAM 4</td>
<td>9, 10, 13, 15</td>
</tr>
<tr>
<td>Mar 29*</td>
<td>Exam 5</td>
<td>16 -- 19</td>
</tr>
<tr>
<td>May 10</td>
<td>FINAL EXAM</td>
<td>1 -- 19</td>
</tr>
</tbody>
</table>

(*) Date may change

TERM PAPER SUGGESTIONS

1. Biodiversity: Why it is important.
2. Gulf Coast oil leak
3. Environmental Issues facing Houston area
4. How ship channel affect environmental problems in Houston?
5. Suggest an alternative renewable energy source for Houston and argue its impact on environment
6. Pick one of the water bodies in/near Houston and discuss its condition from environmental point of view
7. How is the recycling system in Houston?
8. Houston has been named one of the biggest cities in U.S. Discuss the impact of the expansion of the city on environmental issues.
9. Did hurricane Katrina have any impact on environmental issues in Houston? Discuss the impact.
10. Compare Houston’s environmental problems with the rest of the U.S.
12. The Environmental effects of the Petrochemical Industry in the Gulf Coast of Texas.
14. Oil Spills in the Marine Environment.
15. The Greenhouse Effect.
16. The Ozone Layer.
18. The effects of Acid Rain on the ecosystem.
23. The Impact of Wildlife Poaching on the ecosystem.
24. The Environmental effects of Industrial Development in ANWR.
25. The Blue Revolution.
27. The probable Consequences of the Tropical Rain-forest Destruction.
28. Repairing the environmental Destruction in the Florida Everglades.
29. The Environmental Effects created by building the Aswan High Dam.
30. The Nuclear waste Disposal site at Yucca Flats.
31. The impact of Globalization on the environment
32. Water Diversion and its effects on the environment (e.g. The Aral Sea)
33. Ground Ozone.
34. The Potential consequences of Development on the Katy Prairie.
35. The Benefits of the National Park System.
36. The Green Revolution
37. The effects on the environment realized by a 55 mph Speed limit.
38. Brio Hazardous waste Site

You can choose a topic of your own BUT you need to get my approval for that topic before starting any work on it.