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| hcc logo | **HOUSTON COMMUNITY COLLEGE. WEST LOOP**  **COURSES OUTLINE FOR ENV. 1301- ENV.SCIENCES**  **Spring , 2014 , CNR Number 80172**  **1/13/2014 – 5/11/2014** |
| **Discipline/Program** | **Geology** |
| **Course Level** | **First year freshman** |
| **Course Title** | **Environmental Sciences** |
| **Course Rubric and number** | **ENV. 1301** |
| **Semester with CNR** | **Fall 09/08/2013,CNR # 64429** |
| **Course location/Times** | **Monday (WLOP – C 221) – Wednesday, (WLOP -164) 09:30 -11:00 am** |
| **Course Semester credit Hours** | **3 lect.** |
| **Total Course Contact Hours** | **48 hours** |
| **Course Length ( # weeks)** | **16 weeks** |
| **Type of instruction** | **Direct instruction** |
| **Instructor contact information** | **Dr. JALALUDDIN.QURESHI**  **e-mail:** [**jalaluddin.qureshi@hccs.edu**](mailto:jalaluddin.qureshi@hccs.edu) |
| **Office location and hours** | **Mo-We, 12:30-2:00pm @ HCC. SW. Faculty Workroom. (Stafford).** |
| **Course description: HCC Catalog description** | Study of Natural Resources, Energy, Pollution and natural disasters. Core Curriculum Course. |
| **Course Prerequisite** | Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing. |
| **Academic discipline Program Learning Outcomes** | 1. Students will recognize scientific and quantitative methods. Students will evaluate the differences of scientific approaches and communicate these findings, analyses, and interpretations in oral and written communication. 2. Students will demonstrate knowledge of the major issues and problems facing modern science, including issues that touch upon ethics, values, religion, and public policies. 3. Students will demonstrate knowledge of the interdependence of science and technology and their influence on, and contribution to, modern culture. 4. Students will identify and recognize the differences in competing scientific Test in laboratory and field around Houston TX. 5. Note. Your Instructor reserves the right to change the schedule as needed at any point during the course as per requirement of HCC POLICY /RULES AND RAGULATION ACCORDINGLY. |
| **Course Student learning Outcomes (SLO)** | Level 1: Knowledge 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. |
| **Learning objectives**  **(Numbering system linked to SLO)** | Level 1: Knowledge  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.  2. Summarize data from the PUC (Public Utility Commission of Texas) at http://www.puc.state.tx.us/ in terms of energy production.  3. Personal electrical consumption via household electric meter readings.  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.  4. |
| **Course Calendar** | 01/ 13 Monday 2014: Presentations /introductions/ Overview of course.  01/15- 22 /2014: Chap. 1: Environmental relationships.  01/27- 29 /2014: Chap. 2: Environmental ethics.  02 /03-5 / 2014: Chap.3: environmental Risk –Economic, Assessment, and Management.  02/10 /2014 Chap.4. : Interrelated scientific principle –Matter, energy and environment.  02 /10 - 12/ 2014 chap 5: Interactions environment and organisms.  **02 /19/2014 Wed day : Lect. Exam #1.**  02 /24 – 26 / 2014 Chap. 6: Kinds of ecosystems and communities  03/3-5 /2014: Chap. 7: Population characteristics and issues.  03/ 17 -19 /2014: Chap.8 energy and civilization –patterns of consumption.  **World water day conference, 22, March, 2014.**  03/24-26 /2014 Monday chapter 9 Energy resources.  03/31 / 2014 Wednesday: Chap. 10: Nuclear Energy.  11/04/2014: Chap.11 Biodiversity, Chapter. 12: Land-use Planning.  **04/ 2 / 2014: Lect. Exam # 2.**  04 /7-9 /2014: Chap. 13: Soil and its uses.  04/14-16 2014. Water Management.  04 /21 – 23 /2014 Chap. 16: Air quality issues.  04/28 /2014: Chap. 17: Solid waste management and disposal.  04/30 Final exam Review  05/05/ 2014: **Final Exam.** |
| **Instructional methods** | **Standard class lectures using white board and Power Point.** |
| **Instructor’s requirements** | **Attendance:**  Students are supposed to be on time for calls, and have a perfect attendance. Instructor will check attendance daily. No more than 3 excused absences are accepted. Failure to break the rule leads to student withdrawal from the course.  **Course materials:**  Students should bring textbook and lab samples from home, field and prepared report under direction of course supervisor advice.  No copies are accepted. This non- negotiable matter.  Student should watch the environmental science related Movies and submit their view accordingly. like switch ,and other documentary’s environmental protecting agency reports/ film .  **Classroom policy:**  Food and drinks are strictly prohibited, as well as the use of cell phone in class. |
| **EGLS – Evaluation for Greater Learning Survey System** | **EGLS3 -- Evaluation for Greater Learning Student Survey System**  **At Houston Community College, professors believe that thoughtful student feedback is necessary to improve teaching and learning. During a designated time, you will be asked to answer a short online survey of research-based questions related to instruction. The anonymous results of the survey will be made available to your professors and division chairs for continual improvement of instruction. Look for the survey as part of the Houston Community College Student System online near the end of the term.** |
| **Grading Scale** | The grading scale used is the following:  A = 90 – 100  B = 80 – 89  C = 70 – 79  D = 60 – 69  F = < 60 |
| **Instructional materials** | http://onlinefast.org/wwutoday/sites/onlinefast.org.wwutoday/files/EngerSmith13e13tm_A1.jpg  **Textbook**  **Environmental Science. 13th. Edition**. **by** Eldon D. Enger &Bradley F. Smith  **ISBN: 978-0-07-338327-9.** Mc Graw Hill –Publishers. 2004. |
| **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. |
| **Disability Support Services** | 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** | 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 |
| **Important Issues.** |  |

* **Note that your instructor reserves the right to change the schedule as needed at any point during the course.**
* 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 when you have written exams. Keeping to 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.
* 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

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
* Organizing world water Day on 22nd March 2014 and presentations in work shop.
* Showing educational documentaries on energy “SWITCH” DVD / BLU-RAY, Question / Answer.
* [www.switch.org](http://www.switch.org)
* Field visit. Site 8589 F.M. 359, Pattison TX 77466.

**GRADING**

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

**Grade Calculation is based on:**

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| Assessment Activity | Total Grade % |
| Assignments. | 10 % Final Grade |
| Lecture Exam. 1 | 10% |
| Lecture Exam 2. | 10 % |
| Term Paper / world water Day conference Participation/Attendance | 10 % |
| Final exam | 20 % |
| Field work / Field report | 10 % |
| Research Activity / Attendance | 20% |
| Switch Moves and comments | 10% |
| Final Score | 100 |

***Please turn off cell phones during class /***

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**Assignment Policy**

Students are responsible for all information covered in the course. It is your responsibility to complete and submit all assignments and tests by their respective due dates.

**Presentation.** Each student is required to give a 10-15 minute talk on a current environmental issue. After presentation, audience students turn in a sheet of paper with their evaluations and appropriate comments. After all students have turned in the evaluations, the instructor calculates the scores based on the procedure provided below in the syllabus.

**Disclaimer.** To accommodate emergent circumstances, the instructor reserves the right to make reasonable changes in the syllabus while the course is in progress. Any question of interpretation of course requirements or of understandings between a student and the instructor will be at the discretion of the instructor and/or the Chair of the Science Department.

**Some Suggested Presentation Topics Include:**

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| 1. International Trade in Endangered Species 2. Acid Rain in the USA 3. Environmental Degradation in Eastern Europe 4. Capturing Oil in the Persian Gulf 5. Rainforest Products 6. Are Fuel Cells the Future 7. Costa Rican Forests 8. China’s Impact on Global Environment 9. Pakistan or India’s Impact on Global Environment 10. Hydroelectric Impact on Global Environment 11. Contaminated Soils in USSR 12. International Whaling 13. Lead, Mercury, Radon Poisoning 14. Worldwide Soil Degradation 15. Restoring Ecosystems | 1. Antarctica Resource Refuge 2. Corporate Responses to Environmental Concerns 3. Fire as a Forest Management Tool 4. Biological Indicators of Contamination 5. Contaminated Community Clean-up 6. Water Conservation 7. Colorado River Restoration 8. Regulation of Pesticides 9. Computer Tools to Aid in Environmental Decision Making 10. Birth Defects Caused by Environmental Toxins 11. Native American Fishing Rights 12. Recyclable Materials 13. Global Impact of Food Additives 14. Environmental Impact of Mining in Arizona 15. Renewable Energy Sources 16. Films on environmental effects. 17. Potential impacts of Hydraulic Fracturing on Drinking water. 18. Drinking water quality of Houston   Important Dates.  **January 13, 2014 Classes Begin**  **January 20, 2014 MLK Day Holiday**  **January 27, 2014 official Day of Record**  **January 29, 2014 70% Refund**  **February 4, 2014 25 % Refund**  **February 17, 2014 president Holiday**  **March 10- 16, 2014 Spring Break.**  **March 31, 2014 Last day of Students with Drawl @ 4:30 pm**  **April, 18- 20, 2014 spring Holidays**  **May 4 Instruction Ends**  **May, 16 Grades available to Students** |