



**Course Syllabus  
Environmental Science  
GEOL 1305  
Fall 2015 (78344)**

**Instructor**

Robin Nagy  
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**Office Location and Hours**

I am available following class, Monday & Wednesday at 1:50 in Spring Branch room 203. You can also email me to set up an appointment at another time.

**Course Location and Time**

HCCS Northwest Spring Branch Campus, room 203  
Monday & Wednesday, 12:30 - 2:00, August 24 – December 2 (Final exam December 9)

**Course Semester Credit Hours (SCH)**

Credit Hours: 3  
Lecture Hours: 3

**Total Course Contact Hours**

48.00

**Course Length**

16 weeks

**Type of Instruction**

Lecture

**Course Description**

A survey of the forces, including humans, that shape our physical and biologic environment, and how they affect life on Earth. Introduction to the science and policy of global and regional environmental issues, including pollution, climate change, and sustainability of land, water, and energy resources.

**Course Prerequisite(s)**

- Qualify to take INRW 0420 or higher – and –
- Qualify to take ESOL 0360 or higher

## Academic 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 theories.

## Course Student Learning Outcomes (SLO):

1. Recognize, describe, and quantitatively evaluate earth systems, including the land, water, sea, and atmosphere, and how these function as interconnected ecological systems.
2. Assess environmental challenges facing humans caused by their interaction with the physical and biological environment (e.g., population growth, energy resources, food production, pollution, water and resource use).
3. Acquire a scientific vocabulary and critical thinking skills related to environmental science.
4. Assess the effectiveness and feasibility of environmental policy and its impact.

## Learning Objectives

- 1.2 Interpret environmental trends from data (graphs or histograms or tables)
- 2.2 Calculate personal energy or resource consumption (e.g., via household electric meter readings or water usage).
- 2.3 Compare the use of fossil fuel, nuclear, and renewable energy consumption (wind, solar, biomass and hydroelectric).
- 2.4 Discuss current events related to environmental science as reported by news media.
- 3.1 Discuss the reliability of science through the Scientific Method in resolving environmental problems.
- 3.2 Discuss the chemical behavior of matter and states of matter (solid, liquid, or gas) in relation to kinetic and potential energy.
- 3.3 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.
- 4.1 Explore how the political process impacts environmental decision making.
- 4.2 Evaluate significant environmental policies (e.g., clean air act, recycling nuclear fuel rods) related to what procedures are actually in place.

## Core Curriculum Objectives:

This course is in the Life and Physical Science Core Curriculum “functional component area” and meets the objectives of:

- **Critical Thinking Skills** - to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
- **Communication Skills** - to include effective development, interpretation and expression of ideas through written, oral and visual communication
- **Empirical and Quantitative Skills** - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions
- **Teamwork** - to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal

## Course Calendar

### Introduction

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M 8/24	Ch 1 – Environmental Interrelationships & Ch 3 – Environmental Risk
W 8/26	Ch 4 – Interrelated Scientific Principles: Matter, Energy and Environment

### Ecosystems & Environments

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M 8/31	Ch 5 – Interactions: Environments and Organisms
W 9/2	
M 9/7	NO CLASS
W 9/9	Ch 6 – Kinds of Ecosystems and Communities
M 9/14	Ch 7 – Populations: Characteristics and Issues
W 9/16	
M 9/21	Review reading & lecture notes
W 9/23	<b>EXAM 1</b> – Ch 1 - 7

### Energy Issues

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M 9/28	Ch 8 – Energy and Civilization: Patterns and Consumption
W 9/30	Fossil Fuels (reading packet provided)
M 10/5	Ch 16.7 – 16.8 – Global Warming and Climate Change
W 10/7	Renewable Energy Resources (reading packet provided)
M 10/12	Energy Issues Summary Project (details provided by instructor)
W 10/14	

### Ecosystems & Us

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M 10/19	Ch 12 – Land Use Planning
W 10/21	
M 10/26	Ch 13 – Soil and its Uses
W 10/28	Ch 14 – Agricultural Methods & Pest Management
M 11/2	Ch 15 – Water Management
W 11/4	
M 11/9	Ch 16 – Air Quality Issues
W 11/11	
M 11/16	Ch 17 – Solid Waste Management and Disposal
W 11/18	Ch 11 – Biodiversity Issues
M 11/23	<b>EXAM 2</b> – Ch 8, 11-17 & energy reading packets
W 11/25	NO CLASS

### Synthesis

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M 11/30	Review reading & lecture notes, instructor will provide extra readings
W 12/2	

W 12/9      **FINAL EXAM** - cumulative

## Instructional Methods

Face to face

## Student Assignments

Students will be asked to complete a variety of assignments to address student learning outcomes. These assignments may include (but are not limited to): written responses to prompts, drawing concept sketches, reading, data analysis, group discussions and in-class activities. Participation in all class activities is mandatory unless otherwise indicated. All assignments will be described in detail during class and due dates will be clearly outlined. Clear written communication is required – if writing skills are not sufficient to communicate knowledge, you may be required to visit the writing center for help.

## Student Assessment(s)

You will be assessed via exams (two midterms and a cumulative final), completion of assignments in the connect smartbook, and a number of other assignments completed in class and at home. Please see "Instructor Grading Criteria" (below) for a breakdown of the value of each assignment. Work submitted without a name on it will not be given any credit. Your ideas must be clearly communicated to receive full credit – if your writing skills are not sufficient, the instructor may require that you take an assignment to the writing center for help. It is your responsibility to communicate with the instructor regarding make-up work and/or exams if you miss class. **Make-up exams will be conducted in the testing center, and must be completed within one week of the original exam date. Make-up exams or assignments may not be allowed if you do not communicate with the instructor promptly following your absence.** If you know you will be missing class, communicate with the instructor in advance of your absence.

## Instructor's Requirements

You are required to come to class prepared (with paper, pen/pencil, required assignments, and any other materials as required by the instructor). The key to success in this course is participation and active learning – be present and thoughtful, share your ideas, and reflect on what you are learning. Reading may be done either before or after the subject matter is covered in class – some students find it more helpful to get a preview of what will be covered by reading ahead, others prefer to reinforce lecture material by reading it themselves. Please arrive on time, do not disrupt class while you are here, and do not leave early. Three late arrivals or early exits may be counted as an absence and/or may result in an early alert. The early alert system may also be used to refer you to an advisor in the case of behavioral problems, lack of participation, failure to complete assignments, and poor grades.

\*\*Please make sure that your cell phones and all other electronic devices are turned off during class time. See the electronic device policy below for details.

\*\*Please note that this syllabus is subject to change, and revisions will be announced and posted on learningweb.

All HCC policies regarding attendance, withdrawal, academic honesty, students with disabilities, grading, and student rights will be followed in this course. Refer to syllabus section titled "Instructor's Requirements", "HCC Policy Statements", and "Grading" for more details as well as the Student Handbook <http://www.hccs.edu/district/students/student-handbook/>

## HCC Grading Scale:

A = 100- 90:	4 points per semester hour
B = 89 - 80:	3 points per semester hour
C = 79 - 70:	2 points per semester hour
D = 69 - 60:	1 point per semester hour
59 and below = F	0 points per semester hour
FX (Failure due to non-attendance)	0 points per semester hour
IP (In Progress)	0 points per semester hour
W (Withdrawn)	0 points per semester hour
I (Incomplete)	0 points per semester hour
AUD (Audit)	0 points per semester hour

IP (In Progress) is given only in certain developmental courses. The student must re-enroll to receive credit. COM (Completed) is given in non-credit and continuing education courses.

FINAL GRADE OF FX: Students who stop attending class and do not withdraw themselves prior to the withdrawal deadline may either be dropped by their professor for excessive absences or be assigned the final grade of "FX" at the end of the semester. Students who stop attending classes will receive a grade of "FX", compared to an earned grade of "F" which is due to poor performance. Logging into a DE course without active participation is seen as non-attending. Please note that HCC will not disperse financial aid funding for students who have never attended class.

Students who receive financial aid but fail to attend class will be reported to the Department of Education and may have to pay back their aid. A grade of "FX" is treated exactly the same as a grade of "F" in terms of GPA, probation, suspension, and satisfactory academic progress.

To compute grade point average (GPA), divide the total grade points by the total number of semester hours attempted. The grades "IP," "COM" and "I" do not affect GPA.

*Health Sciences Programs Grading Scales may differ from the approved HCC Grading Scale. For Health Sciences Programs Grading Scales, see the "Program Discipline Requirements" section of the Program's syllabi.*

### Instructor Grading Criteria

Your grade will be calculated based on a maximum possible score of 100% and letter grades will be assigned based on the HCC grading scale outlined above. Your total score will come from:

Connect Smartbook	15%
Assignments	20%
Exam 1	20%
Exam 2	20%
Final Exam	25%

### Instructional Materials

Required E-book: *Environmental Science: A Study of Interrelationships*, 14<sup>th</sup> ed., by Enger and Smith; McGraw-Hill, 2016

Students will purchase an access code to *Connect* which will grant access to the digital version of the textbook and several additional learning resources that will be utilized.

Students will have the option to order loose-leaf printed copies of the textbook once they are registered in *Connect*.

### HCC Policy Statement:

Please familiarize yourself with campus policies in the HCC Student Handbook:

<http://www.hccs.edu/district/students/student-handbook/>

***Student with Disabilities (ADA):*** 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 is authorized to provide only the accommodations requested by the Disability Support Services Office.***

***For questions, contact Donna Price at 713.718.5165 or the Disability Counselor at your college. To visit the ADA Web site, log on to www.hccs.edu, click Future Students, scroll down the page and click on the words Disability Information."***

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. **Also visit the ADA web site at:**  
<http://www.hccs.edu/district/students/disability-services/>

**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.” **Cheating** includes looking at or copying from another student's exam, orally communicating or receiving answers during an exam, having another person take an exam or complete a project or assignment, using unauthorized notes, texts, or other materials for an exam, and obtaining or distributing an unauthorized copy of an exam or any part of an exam. **Plagiarism** means passing off as his/her own the ideas or writings of another (that is, without giving proper credit by documenting sources). Plagiarism includes submitting a paper, report or project that someone else has prepared, in whole or in part. **Collusion** is inappropriately collaborating on assignments designed to be completed independently. These definitions are not exhaustive. 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 an 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.

During exams you may not access your textbook, notes, or other course materials unless specifically authorized by the instructor. Using a cell phone (or even having it out) during an exam may result in a score of zero for that exam. You may not leave the classroom during an exam unless specifically authorized to do so by the instructor (leaving during an exam may result in a score of zero).

**Attendance:**

You are expected to attend all lecture classes and labs regularly. You are also responsible for materials covered during your absences. Instructors may be willing to consult with you for make-up assignments, but it is your responsibility to contact the instructor. Class attendance is monitored daily. Although it is your responsibility to drop a course for nonattendance, the instructor has the authority to drop you for excessive absences. *You may be dropped from a course after accumulating absences in excess of 12.5 percent of the total hours of instruction* (lecture and lab). For this 3 credit0hour class meeting three hours per week (48 hours of instruction), that is two class days.

**Withdrawal Policy:** The withdrawal deadline is October 30, 2105. You are ultimately responsible for withdrawing if you choose to stop attending.

***The State of Texas imposes penalties on students who withdraw/drop courses excessively. Students are limited to no more than SIX total course withdrawals throughout their educational career at a Texas public college or university. Students are encouraged to review the [HCC 6 Drop Policy](#). Students who repeat a course three or more times 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.***

***Religious Holidays:*** If you observe a religious holiday and miss class, you must notify your instructor in writing two weeks in advance to arrange to take a test or make up an assignment. A religious holiday is “a holy day observed by a specific religion and the place of worship is exempt from property taxation under Section 11.20 of the Tax Code.”

***Policy on Electronic Devices:*** The use of electronic devices by students in the classroom is up to the discretion of the instructor. Any use of such devices for purposes other than student learning is strictly prohibited. If an instructor perceives such use as disruptive and/or inappropriate, the instructor has the right to terminate such use. If the behavior continues, the student may be subject to disciplinary action to include removal from the classroom or referral to the Dean of Student Services.

Students with disabilities who need to use a recording device as a reasonable accommodation should contact the Office for Students with Disabilities for information regarding reasonable accommodations.

***HCC 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.

**Student Rights and Responsibilities:**

<http://www.hccs.edu/district/about-us/policies/d-student-services/d4-student-rights--responsibilities/>  
and in the Student Handbook

**EGLS<sub>3</sub> -- 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 near the end of the term, 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 department 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.