

Environmental Science-16736

GEOL-1305

SS 2021 Section 06 3 Credits 09/20/2021 to 12/12/2021 Modified 09/19/2021

Course Meetings

Meeting Days

Online asynchronous

Meeting Times

24 H

Meeting Location

Online

Welcome and Instructor Information

Instructor: Dr Peter A Abanda

Email: peter.abanda@hccs.edu Office: Virtual Online office hours Phone: (713) 718-6764 Website: https://learning.hccs.edu/faculty/peter.abanda (https://learning.hccs.edu/faculty/peter.abanda)

What's Exciting About This Course

The most multidisciplinary field of science! This class is for everyone. Everyone! Where does air pollution come from? What are the impacts of different forms of energy? How can the reintroduction of wolves impact the streams in Yellowstone? Paper or plastic; incandescent or LED? How can environmental ethics and economics and progress work simultaneously? What is your carbon footprint? Can your personal choices actually impact the environment? What are we doing with hazardous waste? What is sustainability? What lifestyle changes can we make that will be beneficial to the health of the planet? The information in this course will help you understand humans' impact on Earth and enlighten you about the connectedness of everything that surrounds us.

My Personal Welcome

Welcome to the course!

Preferred Method of Contact

Email peter.abanda@hccs.edu

Office Hours

Monday, Tuesday, Wednesday, Thursday, 9:30 AM to 10:45 AM



GEOL 1305 is a survey course 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.

Requisites

GEOL 1305 requires college-level reading and writing skills. The minimum requirements for enrollment in GEOL 1305 is qualifying to enroll in INRW 0300/0420 or ESOL 0370/0360. Please carefully read and consider the repeater policy in the <u>HCCS Student</u> <u>Handbook</u>.

Program Website

https://www.hccs.edu/programs/areas-of-study/science-technology-engineering--math/geology/ (https://www.hccs.edu/programs/areas-of-study/science-technology-engineering--math/geology/)

Ore Curriculum Objectives (CCOs)

GEOL 1305 satisfies the Life and Physical Science requirement in the HCCS core curriculum. The HCC Geology Program Committee has specified that the course address the following core objectives:

- Critical Thinking. Students will demonstrate the ability to engage in inquiry and analysis, evaluation and synthesis of information, and creative thinking.
- Communication Skills: Students will demonstrate effective development, interpretation and expression of ideas through written, oral, and visual communication. This will be accomplished via assignments such as requiring written reports, essay-style assessment questions, verbal or virtual presentations, or sketching/creating figures and diagrams to express processes.
- *Quantitative and Empirical Literacy*: Students will demonstrate the ability to draw conclusions based on the systematic analysis of topics using observation, experiment, and/or numerical skills. Notably, students will use and interpret graphs and charts in assignments and assessments during the semester.
- *Teamwork*: to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal by working together with other classmates on assignments or a project during the semester.

Student Learning Outcomes and Objectives

Geology Program Student Learning Outcomes (PSLOs)

Can be found at: https://learning.hccs.edu/programs/geology

Course Student Learning Outcomes (CSLOs)

Upon completion of GEOL 1305, the student will be able to:

- Recognize, describe, and quantitatively evaluate earth systems, including the land, water, sea, and atmosphere, and how these function as interconnected ecological systems.
 Minimum topics covered: Environmental Interrelationships, Organism interaction in environments, Types of ecosystems and communities, Biodiversity issues
- 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).
 Minimum topics covered: General Population characteristics, Renewable and non-renewable energy, Land-use planning, Soil and agricultural methods, Water resources and management, Air quality and pollution, Climate change, Solid waste and hazardous waste management.
- 3. Acquire a scientific vocabulary and critical thinking skills related to environmental science. Minimum topics covered: Basic scientific principles and the scientific method.
- 4. Assess the effectiveness and feasibility of environmental policy and its impact. Minimum topics covered: Environmental ethics, Economics and environmental concerns, A variety of policies related to energy, land-use, pollution, resource management, waste management

Learning Objectives

1.1 List the four categories of limiting factors for organisms in an ecological systems (raw materials, energy, waste products and interactions among organisms).

1.2 Interpret environmental trends from data (graphs or histograms or tables)

2.1 Utilize population data (e.g., from the US Census Bureau at http://www.census.gov/) to determine population growth rate, and analyze impact on resource demand and waste production.

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.

E Departmental Practices and Procedures

Department Specific Instructor and Student Responsibilities

Via this syllabus and the course management system instructors in the Geology Program should

- Provide a clear grading scale
- Communicate expectations and assignment instructions clearly.
- Establish a safe, welcoming, equitable environment for learning
- Encourage students to engage with geoscience topics beyond the textbook
- · Communicate with students when they are concerned about achievement, completion, or behavior in class.

Program-Specific Student Success Information

Please see the information about HCC tutoring opportunities listed under Student Resources section in the HCC Policies and Information heading of the syllabus. (below)

Instructional Materials and Resources

Instructional Materials

This course participates in the Houston Community College First Day Program. A discount has been applied to the required digital course materials. The discounted charge has been added to students' tuition and fee bills.

Students will access course materials through a link in Canvas. Instructions for opting out of the HCC First Day Program are also posted in Canvas. Students who opt out will still be responsible for obtaining required course materials.

The <u>HCC Online Bookstore (https://hccs.bncollege.com/shop/hccs-central/page/find-textbooks</u>) provides searchable information on textbooks for all courses. Check with your instructor before purchasing textbooks because the book might be included in your course fees.

Add Instructional Materials Here

Other Instructional Resources

Courseware

Content here...

Course Requirements

Assignments, Exams, and Activities

Туре	Weight	Торіс	Notes
Presentation	5%	Environment in the News	Students will carry out research on a topic that is related to the environment and that has been on the news recently (up to about 10 years). See detailed document regarding presentation in Canvas. Each student will prepare, record, and submit a 3-5 minutes video presentation. You can create video using Kaltura media in Canvas, submit an mp3/4 video or do a powerpoint presentation with voice over.
Reading practice exercises and Quizzes	25%		All reading assignments will be online on McGraw-Hill Connect. Always access Mcgraw-Hill connect from the link in Canvas. Due dates are communicated in the course syllabus and on the landing page in Connect. See document detailing how to access and complete Reading practice assignments in canvas. Quizzes will be administered regularly throughout the semester. All quizzes are online through McGraw- Hill Connect. Their deadline will be communicated in the course syllabus as well as on Eagle Online Canvas.
Mid semester exams	30%	Check course announcements for exam dates and toipics	There is NO makeup exam. Exams will cover materials presented in the course and will test mastery of content aligned with specific SLO.
Final Exam	20%		Describe the assignment here.
Extra Credit	1%		Extra credit work shall be assigned but it is optional.
Discussion Board exercises	10%	Discussion	Students will be required to contribute to the discussion by answering a set of questions or giving their opinion about a topic and responding to their classmate's contribution.
Application Based Exercises	10%	Application of concepts	

Grading Formula

Grade	Range	Notes
A	90+	
В	80-89	
с	70-79	
D	60-69	
F	<60	

***** Instructor's Practices and Procedures

Incomplete Policy

In order to receive a grade of Incomplete ("I"), a student must have completed at least 85% of the work in the course. In all cases, the instructor reserves the right to decline a student's request to receive a grade of Incomplete.

Missed Assignments/Make-Up Policy

Assignments are open for more than a week before closing. Do not wait till the last minute to complete an assignment. There will be no make-up on all assignments because you have more than 1 week to work on an assignment and plenty of time to work ahead. There will be no makeup on exams except with instructor's prior permission and will require valid documentation from the student.

This class is 100% online and offered through EagleOnline Canvas. Students are expected to have a working computer with internet access.

Academic Integrity

Here's the link to the HCC information about academic integrity (Scholastic Dishonesty and Violation of Academic Scholastic Dishonesty and Grievance):

https://www.hccs.edu/about-hcc/procedures/student-rights-policies--procedures/student-procedures/ (https://www.hccs.edu/about-hcc/procedures/student-rights-policies--procedures/student-procedures/)

Attendance Procedures

Regular and prompt classroom attendance is a critical component of the educational experience because it prepares you the student to be effective and responsible citizen. Students are expected to contact the instructor regarding any absence before class, or within 24 hours in case of an emergency, just as they would contact an employer regarding any absence from their jobs. With proper notification, the student may be given the opportunity to make up missed work by the next class period. Students are responsible for any material covered in class during their absence. Regardless of the reason or excuse, excessive absences, tardiness, or early departures from class will negatively affect course grades. Because this is an online class, you are expected to login into the course regularly, complete all the reading assignments, quizzes, discussion exercises and exams on time and inform your instructor regarding any problems you may encounter in the course.

In the online environment, you are responsible for reading the course announcements and completing all assigned work on time. Instructors may be willing to consult with you for make-up assignments, but it is your responsibility to contact the instructor. Although it is your responsibility to drop a course for nonattendance, the instructor has the authority to drop you for excessive absences. In the online environment, the course analytics shall be used to verify how much time you are spending online and to check for the last time you logged into the course. You may be dropped from a course after accumulating absences in excess of 12.5 percent of the total hours of instruction. For this 3 credit-hour lecture class meeting 3 hours per week (48 hours of instruction), you can be dropped after 6 hours of absence.

Student Conduct

Add Content Here

Instructor's Course-Specific Information

Add Content Here

Devices

Add Content Here

Faculty Statement about Student Success

Expect to spend at least twice as many hours per week outside of class as you do in class studying the course content. Additional time will be required for written assignments. The assignments provided will help you use your study hours wisely. Successful completion of this course requires a combination of the following:

- Reading the textbook via eBook or SmartBook
- Attending class in person and/or online
- Completing assignments
- Participating in class activities

There is no short cut for success in this course; it requires reading (and probably re-reading) and studying the material using the course objectives as your guide.

Faculty-Specific Information Regarding Canvas

This course section will use Canvas (<u>https://eagleonline.hccs.edu (https://eagleonline.hccs.edu)</u>) to supplement in-class assignments, exams, and activities.

HCCS Open Lab locations may be used to access the Internet and Canvas. For best performance, Canvas should be used on the current or first previous major release of Chrome, Firefox, Edge, or Safari. Because it's built using web standards, Canvas runs on Windows, Mac, Linux, iOS, Android, or any other device with a modern web browser.

Canvas only requires an operating system that can run the latest compatible web browsers. Your computer operating system should be kept up to date with the latest recommended security updates and upgrades.

Instructional Modalities

In-Person (P)

Safe, face-to-face course with scheduled dates and times

Online on a Schedule (WS)

Fully online course with virtual meetings at scheduled dates and times

Online Anytime (WW)

Traditional online course without scheduled meetings

Hybrid (H)

Course that meets safely 50% face-to-face and 50% virtually

Hybrid Lab (HL)

Lab class that meets safely 50% face-to-face and 50% virtually

Social Justice Statement

Houston Community College is committed to furthering the cause of social justice in our community and beyond. HCC does not discriminate on the basis of race, color, religion, sex, gender identity and expression, national origin, age, disability, sexual orientation, or veteran status. I fully support that commitment and, as such, will work to maintain a positive learning environment based upon open communication, mutual respect, and non-discrimination. In this course, we share in the creation and maintenance of a positive and safe learning environment. Part of this process includes acknowledging and embracing the differences among us in order to establish and reinforce that each one of us matters. I appreciate your suggestions about how to best maintain this environment of respect. If you experience any type of discrimination, please contact me and/or the Office of Institutional Equity at 713-718-8271.

竝 HCC Policies and Information

HCC Grading System

HCC uses the following standard grading system:

Grade	Grade Interpretation	Grade Points
А	Excellent (90-100)	4
В	Good (80-89)	3
с	Fair (70-79)	2

Grade	Grade Interpretation	Grade Points
D	Passing (60-69), except in developmental courses.	1
F	Failing (59 and below)	0
FX	Failing due to non-attendance	0
W	Withdrawn	0
I	Incomplete	0
AUD	Audit	0
IP	In Progress. Given only in certain developmental courses. A student must re-enroll to receive credit.	0
СОМ	Completed. Given in non-credit and continuing education courses.	0

Link to Policies in Student Handbook

Here's the link to the HCC Student Handbook <u>https://www.hccs.edu/resources-for/current-students/student-handbook/</u> (<u>https://www.hccs.edu/resources-for/current-students/student-handbook/</u>)</u> In it you will find information about the following:

- Academic Information
- Academic Support
- Attendance, Repeating Courses, and Withdrawal
- Career Planning and Job Search
- Childcare
- disAbility Support Services
- Electronic Devices
- Equal Educational Opportunity
- Financial Aid TV (FATV)
- General Student Complaints
- Grade of FX
- Incomplete Grades
- International Student Services
- Health Awareness
- Libraries/Bookstore
- Police Services & Campus Safety
- Student Life at HCC
- Student Rights and Responsibilities
- Student Services
- Testing
- Transfer Planning
- Veteran Services

Link to HCC Academic Integrity Statement

https://www.hccs.edu/resources-for/faculty/student-conduct-resources-for-faculty/ (https://www.hccs.edu/resources-for/faculty/student-conduct-resources-for-faculty/)

Campus Carry Link

Here's the link to the HCC information about Campus Carry:

https://www.hccs.edu/departments/police/campus-carry/ (https://www.hccs.edu/departments/police/campus-carry/)

HCC Email Policy

When communicating via email, HCC requires students to communicate only through the HCC email system to protect your privacy. If you have not activated your HCC student email account, you can go to HCC Eagle ID (https://www.hccs.edu/resources-for/current-students/student-e-maileagle-id/) and activate it now. You may also use Canvas Inbox to communicate.

Office of Institutional Equity

Use the link below to access the HCC Office of Institutional Equity, Inclusion, and Engagement (https://www.hccs.edu/departments/institutional-equity/ (https://www.hccs.edu/departments/institutional-equity/))

Ability Services

HCC strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including long and short term conditions, mental health, chronic or temporary medical conditions), please meet with a campus Abilities Counselor as soon as possible in order to establish reasonable accommodations. Reasonable accommodations are established through an interactive process between you, your instructor(s) and Ability Services. It is the policy and practice of HCC to create inclusive and accessible learning environments consistent with federal and state law. For more information, please go to https://www.hccs.edu/support-services/ability-services/ (https://www.hccs.edu/support-services/ability-services/ (https://www.hccs.edu/support-services/ability-services/ (<a href="https://www.hccs.edu/support-services/ability-services/litty-servic

Title IX

Houston Community College is committed to cultivating an environment free from inappropriate conduct of a sexual or genderbased nature including sex discrimination, sexual assault, sexual harassment, and sexual violence. Sex discrimination includes all forms of sexual and gender-based misconduct and violates an individual's fundamental rights and personal dignity. Title IX prohibits discrimination on the basis of sex-including pregnancy and parental status in educational programs and activities. If you require an accommodation due to pregnancy please contact an Abilities Services Counselor. The Director of EEO/Compliance is designated as the Title IX Coordinator and Section 504 Coordinator. All inquiries concerning HCC policies, compliance with applicable laws, statutes, and regulations (such as Title VI, Title IX, and Section 504), and complaints may be directed to:

David Cross Director EEO/Compliance Office of Institutional Equity & Diversity 3100 Main (713) 718-8271 Houston, TX 77266-7517 or Institutional.Equity@hccs.edu (mailto:Institutional.Equity@hccs.edu)

http://www.hccs.edu/departments/institutional-equity/title-ix-know-your-rights/ (http://www.hccs.edu/departments/institutional-equity/title-ix-know-your-rights/)

Office of the Dean of Students

Contact the office of the Dean of Students to seek assistance in determining the correct complaint procedure to follow or to identify the appropriate academic dean or supervisor for informal resolution of complaints.

https://www.hccs.edu/about-hcc/procedures/student-rights-policies--procedures/student-complaints/speak-with-the-dean-of-students/ (https://www.hccs.edu/about-hcc/procedures/student-rights-policies--procedures/student-complaints/speak-with-the-dean-of-students/)

Student Success

Expect to spend at least twice as many hours per week outside of class as you do in class studying the course content. Additional time will be required for written assignments. The assignments provided will help you use your study hours wisely. Successful completion of this course requires a combination of the following:

- Reading the textbook
- Attending class in person and/or online
- Completing assignments
- Participating in class activities

There is no short cut for success in this course; it requires reading (and probably re-reading) and studying the material using the course objectives as a guide.

Canvas Learning Management System

Canvas is HCC's Learning Management System (LMS), and can be accessed at the following URL:

https://eagleonline.hccs.edu (https://eagleonline.hccs.edu)

HCCS Open Lab locations may be used to access the Internet and Canvas. For best performance, Canvas should be used on the current or first previous major release of Chrome, Firefox, Edge, or Safari. Because it's built using web standards, Canvas runs on Windows, Mac, Linux, iOS, Android, or any other device with a modern web browser.

Canvas only requires an operating system that can run the latest compatible web browsers. Your computer operating system should be kept up to date with the latest recommended security updates and upgrades.

HCC Online Information and Policies

Here is the link to information about HCC Online classes, which includes access to the required Online Information Class Preview for all fully online classes: <u>https://www.hccs.edu/online/ (https://www.hccs.edu/online/)</u>

Scoring Rubrics, Sample Assignments, etc.

Look in Canvas for the scoring rubrics for assignments, samples of class assignments, and other information to assist you in the course. <u>https://eagleonline.hccs.edu/login/ldap (https://eagleonline.hccs.edu/login/ldap</u>)

Instructor and Student Responsibilities

As your Instructor, it is my responsibility to:

- · Provide the grading scale and detailed grading formula explaining how student grades are to be derived
- · Facilitate an effective learning environment through learner-centered instructional techniques
- Provide a description of any special projects or assignments
- · Inform students of policies such as attendance, withdrawal, tardiness, and making up assignments
- Provide the course outline and class calendar that will include a description of any special projects or assignments
- · Arrange to meet with individual students during office hours, and before and after class as required

As a student, it is your responsibility to:

- Attend class in person and/or online
- Participate actively by reviewing course material, interacting with classmates, and responding promptly in your communication with me
- Read and comprehend the textbook
- Complete the required assignments and exams
- Ask for help when there is a question or problem
- · Keep copies of all paperwork, including this syllabus, handouts, and all assignments
- Be aware of and comply with academic honesty policies in the <u>HCCS Student Handbook (https://www.hccs.edu/resources-for/current-students/student-handbook/)</u>

Sensitive or Mature Course Content

In this college-level course, we may occasionally discuss sensitive or mature content. All members of the classroom environment, from your instructor to your fellow students, are expected to handle potentially controversial subjects with respect and consideration for one another's varied experiences and values.

EGLS3

The EGLS³ (Evaluation for Greater Learning Student Survey System (https://www.hccs.edu/resources-for/current-students/egls3evaluate-your-professors/)) will be available for most courses near the end of the term until finals start. This brief survey will give invaluable information to your faculty about their teaching. Results are anonymous and will be available to faculty and division chairs after the end of the term. EGLS³ surveys are only available for the Fall and Spring semesters. -EGLS3 surveys are not offered during the Summer semester due to logistical constraints.

https://www.hccs.edu/resources-for/current-students/egls3-evaluate-your-professors/ (https://www.hccs.edu/resourcesfor/current-students/egls3-evaluate-your-professors/)

Housing and Food Assistance for Students

Any student who faces challenges securing their foods or housing and believes this may affect their performance in the course is urged to contact the Dean of Students at their college for support. Furthermore, please notify the professor if you are comfortable in doing so.

This will enable HCC to provide any resources that HCC may possess.

Student Resources

Tutoring

HCC provides free, confidential, and convenient academic support, including writing critiques, to HCC students in an online environment and on campus. Tutoring is provided by HCC personnel in order to ensure that it is contextual and appropriate. Visit the <u>HCC Tutoring Services (https://www.hccs.edu/resources-for/current-students/tutoring/)</u> website for services provided.

Libraries

The HCC Library System consists of 9 libraries and 6 Electronic Resource Centers (ERCs) that are inviting places to study and collaborate on projects. Librarians are available both at the libraries and online to show you how to locate and use the resources you need. The libraries maintain a large selection of electronic resources as well as collections of books, magazines, newspapers, and audiovisual materials. The portal to all libraries' resources and services is the HCCS library web page at https://library.hccs.edu (https://library.hccs.edu/).

Supplementary Instruction

Supplemental Instruction is an academic enrichment and support program that uses peer-assisted study sessions to improve student retention and success in historically difficult courses. Peer Support is provided by students who have already succeeded in completion of the specified course, and who earned a grade of A or B. Find details at https://www.hccs.edu/resources-for/current-students/supplemental-instruction/ (https://www.hccs.edu/resources-for/current-students/supplemental-instruction/</a

Resources for Students:

https://www.hccs.edu/resources-for/current-students/communicable-diseases/resources-for-students/ (https://www.hccs.edu/resources-for/current-students/communicable-diseases/resources-for-students/)

Basic Needs Resources:

https://www.hccs.edu/support-services/counseling/hcc-cares/basic-needs-resources/ (https://www.hccs.edu/support-services/counseling/hcc-cares/basic-needs-resources/)

Student Basic Needs Application:

https://hccs.co1.qualtrics.com/jfe/form/SV_25WyNx7NwMRz1FH (https://hccs.co1.qualtrics.com/jfe/form/SV_25WyNx7NwMRz1FH)

COVID-19

Here's the link to the HCC information about COVID-19:

https://www.hccs.edu/resources-for/current-students/communicable-diseases/ (https://www.hccs.edu/resources-for/current-

students/communicable-diseases/)

Instructional Modalities

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Hybrid Lab (HL)

Lab class that meets safely 50% face-to-face and 50% virtually

喆 Course Calendar

Syllabus Modifications

The instructor reserves the right to modify the syllabus at any time during the semester and will promptly notify students in writing, typically by e-mail, of any such changes.

Additional Information

Departmental/Program Information

The Geology Program faculty are excited you are participating in this course! Please visit the LearningWeb page to find additional information about the HCC Geology A.S. degree plan, links to Geoscience programs across Texas, careers in Geosciences, Diversity in Geosciences, and program contact information.

https://learning.hccs.edu/programs/geology (https://learning.hccs.edu/programs/geology)

Completing the HCC Geology A.S. degree plan will satisfy the first two years of requirements for many University geoscience programs including core curriculum and prerequisites for upper-division courses.

HCC has many transfer agreements with Texas universities for geology and geoscience undergraduate degree paths. You can find the information about transfer agreements here: <u>https://www.hccs.edu/support-services/transfers/</u>(<u>https://www.hccs.edu/support-services/transfers/</u>)</u>

Additionally, students can find more information about Science, Technology, Engineering, and Math (STEM) opportunities and events on the HCC STEM page: <u>https://www.hccs.edu/stem (https://www.hccs.edu/resources-for/current-students/stem---science-technology-engineering--mathematics/)</u>

Process for Expressing Concerns about the Course

If you have concerns about any aspect of this course, please reach out to your instructor for assistance first. If your instructor is not able to assist you, then you may wish to contact the Natural Science Department Chair, Dr. Cyril Anoka. The phone number is 713-718-5569

The procedures for HCC student grievance are described at:

https://www.hccs.edu/about-hcc/procedures/student-rights-policies--procedures/