Department of Natural Sciences
GEOLOGY Program
http://www.hccs.edu/geology

GEOL 1305: Environmental Science | Lecture | CRN# 17761

Spring 2021 Second 8 weeks | 8 Weeks (03/22/2021-05/16/2021)
DE | HCC Online | 24 hrs
3 Credit Hours | 48 hours electronic instruction

Instructor Contact Information

Instructor:	Peter Azah Abanda, Ph.D.	Office Phone:	713-718-6764
Office:	Stafford	Office Hours:	Virtual office hours
HCC Email:	peter.abanda@hccs.edu	Office Location:	Online

Please feel free to contact me concerning any problems that you are experiencing in this course. Your performance in my class is very important to me. I am available to hear your concerns and to discuss course topics.

Instructor's Preferred Method of Contact

The preferred method to contact me will be through email peter.abanda@hccs.edu. Use the inbox in canvas to contact me. I will respond to emails within 48 hours Monday through Friday; I may only reply to weekend messages on Monday mornings.

The Department of Natural Science can be contacted via phone 713-718-6050 or email natural.sciences@hccs.edu

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 Environmental Science! —I'm delighted that you have chosen this course. One of my passions is to know as much as I can about the Earth, and I can hardly wait to pass

that on. I will present the information in the most exciting way I know, so that you can grasp the concepts and apply them now and hopefully throughout your life. As you read and wrestle with new ideas and facts that may challenge you, I am available to support you. The fastest way to reach me is by my HCC email <peter.abanda@hccs.edu>. My goal is for you to walk out of the course with a better understanding of the environment and how it affects you. So please contact me whenever you have a question.

Prerequisites and/or Co-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 HCCS Student Handbook.

Canvas Learning Management System

This is a DE section of the course and will use Eagle Online Canvas (https://eagleonline.hccs.edu) to deliver all course materials. I will use the McGraw-Hill connect platform linked to Canvas to assign chapter readings, application based activities, quizzes and exams. All access to the course will be through Canvas. It is recommended that you **USE FIREFOX OR CHROME AS YOUR WEB BROWSER**.

HCC Online Information and Policies

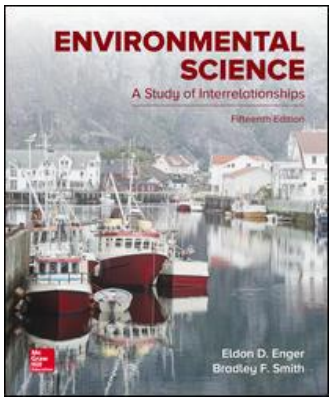
Here is the link to information about HCC Online classes including the required Online Orientation for all fully online classes: http://www.hccs.edu/online/

Scoring Rubrics, Sample Assignments, etc.

Look in Eagle Online Canvas for the scoring rubrics for assignments, samples of class assignments, and other information to assist you in the course. Also be sure to check in for announcements. https://eagleonline.hccs.edu/

Instructional Materials

Textbook Information



The textbook listed below is ***required*** for this course.
"Environmental Science: A Study of Interrelationships" (15th edition) by Enger and Smith (McGraw-Hill). Digital book via *Connect* ISBN: 1260134709

This course is First Day Access and the electronic textbook (ebook) is included in the course fee. You are not required to buy the physical textbook or purchase any additional course materials.

About First Day Access

All sections of this class are "First Day Access". Students will access the book automatically within the EagleOnline course for their section. Instructors will have instructions for you about finalizing registration to access Connect, the McGraw-Hill system where the book and

other materials are accessed. Cost of book access is part of student's course fees which is a much lower cost than retail. Student may "opt out" of included access, but then will need to pay for book access on their own which costs more. The opt-out access is through the "course materials" link in the course EagleOnline page.
Instructors will provide additional information about using Connect to access the text and assignments.
Students may also purchase a loose-leaf copy of the textbook from McGraw-Hill if they would like a physical copy of the text. This feature is available from within the student's Connect account once it is established.

Other Instructional 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 HCC Tutoring Services 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 http://library.hccs.edu.
Check out the Geology LibGuide maintained by the HCC library
https://library.hccs.edu/geology

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 http://www.hccs.edu/resources-for/current-students/supplemental-instruction/.

Course Overview

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.

Core Curriculum Objectives (CCOs)
GEOL 1305 satisfies the social 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.

- ***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 graphs and charts in 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.

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:

1. 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
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).
   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.

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.

Instructor and Student Responsibilities

As your Instructor, it is my responsibility to**:**

- Provide the grading scale and detailed grading formula explaining how your grades are to be derived (see Canvas gradebook for details)
- Facilitate an effective learning environment through learner-centered instructional techniques
- Provide a description of any special projects or assignments
- Inform you of policies such as attendance, withdrawal, tardiness, and make up
- Provide the course outline and class calendar which will include a description of any special projects or assignments (see details in outline below)
- Respond to your emails and questions in a timely manner

As a student, it is your responsibility to**:**

- Attend class in person and/or online
- Participate actively by reviewing course material, interacting with classmates through discussion board exercises, 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 HCCS Student Handbook

Assignments, Exams, and Activities

Assignments

- **Reading Practice Homework**: Homework is vital to success in any class! Therefore, it is important that you do your homework regularly and get help immediately when you

have questions. Homework will be regularly assigned throughout the semester. 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**: 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.

  Research Paper: There will be no research paper assigned in the **Spring 2021**. The research paper shall be replaced by Application based activities on a couple of topics including: Environmental costs, climate change and the hydrologic cycle. **The application-based activities will test mastery of concepts and application of knowledge gained in the course related to the above topics.**

  The research paper will be a position paper about a controversial geoscience topic of the student's interest. In a position paper, you will research multiple sides of an issue (for or against) and your own opinion (what's your take) will make a significant part of the argument. Are you for, against, or somewhere in between? Take the issue of global climate change for example. There is scientific evidence to suggest that our use of energy, fossils fuels especially is having an effect on Earth's climate. There is an opposing view that humans play no significant role in our changing climate and that Earth is simply doing what it's done throughout its history. That Earth has gone has gone through periods of significant warming and cooling in its history and this is no different. What's your take? The length of the paper is 3 pages, typed, and double-spaced with reference not counted. At least one of the references should come from the HCC library resources.

  The research paper may be replaced with multiple application-based activities that will test mastery of concepts and application of knowledge gained in the course.

- **Exams**: There will be 2 unit exams and a final exam. There is NO makeup exam.
- **Discussions**: Discussions will be assigned throughout the semester and 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.
- **Environment in the News presentation**. 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 using multimedia tools in Canvas. You can also create and submit an mp3/mp4 video or a voice over PowerPoint presentation.

Grading Formula

Midterm Exams x2 @ 15% each = 30 % total
Final exam = 20 %
Quizzes and reading practice exercises = 25 %
Environment in the news presentation = 5 %
Discussions board exercises = 10 %
Application based activities = 10 %

Grade	Total Points

A	900+
B	800-899
C	700-799
D	600-699
F	<600

HCC Grading Scale can be found on this site under Academic Information: http://www.hccs.edu/resources-for/current-students/student-handbook/

Course Calendar

Calendar of topics, assignment deadlines, exams, quizzes. This calendar is subject to change. Any changes made will be communicated to the students.

Due dates	Lecture and discussion topics including chapter readings	Assignments/Exams
03/24	Introductions connect registration and navigation, Environmental Interrelationships. Chapter 1	Chp 1 Connect reading exercise and quiz
03/28	Environmental Ethics. Chapters 2.	Chp 2 Connect reading exercise and quiz
03/31	Risk, Economics and environmental Concerns. Chapter 3	Chp 3 Connect reading exercise and quiz
04/01	***Ecological Footprint discussion exercise due***	
04/04	Interrelated Principles: Matter, Energy, and Environment. Chapter 4.	Chp 4 Connect reading exercise and quiz
04/07	Interactions: Environment and Organism. Chapters 5.	Chp. 5 Connect reading exercise and quiz.
04/08	**Discussion News Response # 1 due**	
04/09	**Review Chapters 1-5 (See review in Canvas) and take Exam I: The exam will stay open for 24 hrs from 12:00AM to 11:59 PM**	
04/11	Kinds of Ecosystems and Communities. Chapter 6.	Chp. 6 Connect reading exercise and quiz. Due
04/14	Population: Characteristics and Issues. Chapter 7.	Chp.7 Connect reading exercises and quiz.
04/15	**Discussion News response # 2 due**	
04/18	Energy and Civilization: Patterns of Consumption Chapter 8.	Chp. 8 Connect reading exercise
04/19	**Discussion: The toxic Fish of Galveston due**	
04/21	Nonrenewable Energy Sources. Chapter 9. Renewable Energy Sources Chapter 10.	Chp. 9 &10 Connect reading exercise and Chp 8, 9, &10 quiz
04/25	**Environment in the news presentation due (see presentation guidelines in Canvas)**	
04/26	**Review chapters 6-10 and take Exam #2. Exam will stay open for 24 hrs from 12:00AM to 11:59 PM**	
04/28	Biodiversity issues and Land use planning. Chapters 11 & 12	Chp.11 &12 Connect reading exercises and quiz.
04/30	Soil and its uses, chapter 13 **Discussion News response # 3 due**	Chp. 13 Connect reading exercise and quiz.
05/02	Water management. Chapter 15	Chp. 15 Connect reading exercise and quiz

05/05	Air quality issues. Chapter 16	Chp. 16 Connect reading exercise and quiz
05/07	Climate Change: A Twenty First Century Issue. Chapter 17. Solid waste management and disposal. Chapters 18	Chp. 17&18 Connect reading exercises and quiz
05/009	Review chapters 11, 12, 13, 15, 16, 17, and 18 for Final Exam **Application exercises due**	
05/10 Take Final Exam. The exam will be opened for 24 hrs from 12:00AM to 11:59 PM		

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.

Instructor's Practices and Procedures

Missed Assignments

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.

This class is 100% online and offered through EagleOnline Canvas. Students are expected to have a working computer with internet access. If you are taking a HCC Online course(s), you must complete an Online Orientation for each course. The Online Orientation consists of 6 steps. Steps 1 and 2 are the same for every HCC Online section. Steps 3-5 may be different for every HCC Online section.

Visit the following website for HCC online resources.
https://www.hccs.edu/online/

Academic Integrity

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.

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

Below, you'll find some important dates to note.

Date	Event	Semester
March 22	Classes Begin	Spring 2021
March 29	Official Day of Record	Spring 2021
March 31	Last day for 70% Refund	Spring 2021
April 5	Last day for 25% Refund	Spring 2021
April 26	Last Day to withdraw	Spring 2021
May 9	Last day of Instruction	Spring 2021
May 16	Semester Ends	Spring 2021

Student Conduct

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.

Instructor's Course-Specific Information (As Needed)

See grading policy.

Electronic Devices

Cellphones should be on silent during class time. Food and or drinks not allowed in the classroom. Recording of lectures or taking of photos will require prior authorization.

Geology Program Information

The Geology Program faculty are excited you are participating in this course! Please visit the Learning Web page to find additional information about the HCC Geology degree plan, links to Geoscience programs across Texas, careers in Geosciences, Diversity in Geosciences, and program contact information.
https://learning.hccs.edu/programs/geology

Additionally, students can find more information about Science, Technology, Engineering, and Math (STEM) opportunities and events on the HCC STEM page: https://www.hccs.edu/stem

Instructional Modes (Spring 2021)

4 Ways to Learn @ HCC this Fall (see details below)

https://www.hccs.edu/campaigns/college-your-way/

Student Resources

COVID 19 Information:

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 (HCC Cares):

https://www.hccs.edu/support-services/counseling/hcc-cares/

Student Basic Needs Application:

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

HCC Policies

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

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

EGLS$_3$

The EGLS$_3$ (Evaluation for Greater Learning Student Survey System) 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. $EGLS_3$ surveys are only available for the Fall and Spring semesters. -$EGLS_3$ surveys are not offered during the Summer semester due to logistical constraints.
http://www.hccs.edu/resources-for/current-students/egls3-evaluate-your-professors/

Campus Carry Link
Here's the link to the HCC information about Campus Carry:
http://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 and activate it now. You may also use Canvas Inbox to communicate.

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.

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

disAbility Services
HCC strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including 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 http://www.hccs.edu/support-services/disability-services/

Title IX
Houston Community College is committed to cultivating an environment free from inappropriate conduct of a sexual or gender-based 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
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/

Department Chair Contact Information

Chair of Department of Natural Sciences:
Dr. Kumela Tafa (kumela.tafa@hccs.edu) office phone: 713-718-5569