



SYLLABUS
GEOL 1345 – Introduction to Oceanography
Spring 2017
Class Number 16566

Instructor contact information

Karen Blair Yip karen.yip@hccs.edu

Most of your electronic contact with me will be via Eagle Online email.

Office Location and Hours

West Loop Campus Room C221 Mon/Wed 3:30-4:30pm and location TBA: Tue/Thur 11am-noon
Please contact me to let me know you would like to meet at these times or if you would like to meet at another time to better fit your schedule.

Course Location/Times

Mon/Wed 2pm – 3:30pm West Loop room C221

Course Semester Credit Hours (SCH) (lecture, lab)

Credit Hours 3.00

Lecture Hours 3.00

Laboratory Hours 0

Total Course Contact Hours

48.00

Course Length

16 weeks

Type of Instruction and method

Face-to-face Lecture

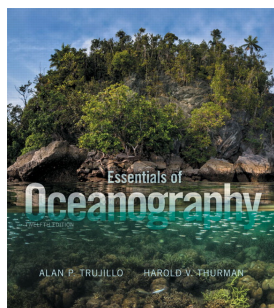
Course Description:

An introduction to the world's oceans, emphasizing the geological, physical, biological, chemical, and ecological aspects of the marine environment. Core Curriculum course

Course Prerequisite(s)

- Qualify to take INRW 0420 or ESOL 0360 or higher
- Qualify to take MATH 0312 (Intermediate Algebra) or higher

Textbook Information: The following textbook is required.



Textbook: *Essentials of Oceanography, 12th ed.*, by Trujillo and Thurman; Pearson/Prentice-Hall, 2017 (ISBN 9780134253947)

Also bring a notebook, pencils, and a calculator.

Academic Discipline/CTE Program Learning Outcomes

1. Students will recognize scientific and quantitative methods.
2. Students will evaluate the differences of scientific approaches and communicate these findings, analyses, and interpretations in oral and written communication.
3. Students will identify and recognize the differences in competing scientific theories.
4. Students will demonstrate knowledge of the major issues and problems facing modern science,

including issues that touch upon ethics, values, religion, and public policies.

5. Students will demonstrate knowledge of the interdependence of science and technology and their influence on, and contribution to, modern culture.

Course Student Learning Outcomes (SLO):

1. Understand the origin and distribution of ocean sediments
2. Relate the ocean system to the larger Plate Tectonic model and other dynamic Earth systems.
3. Understand properties of seawater
4. Relate ocean conditions to Earth's climate system.

Learning Objectives

- 1.1. Summarize the distribution of lithogenous and biogenous sediments on the ocean floor.
- 1.2. Explain how marine sediments reach the ocean floor.
- 1.3. Visualize changes in sediment thickness and composition from the mid-ocean ridges to continental margins.

- 2.1. Describe the four major components of the Earth system.
- 2.2. Explain the differences between ocean crust and continental crust.
- 2.3. Summarize the characteristics of major plate tectonic boundaries.
- 2.4. Explain how ocean basins form.

- 3.1. Calculate the density of seawater from temperature-salinity/density diagrams.
- 3.2. Interpret isothermal and isohaline maps of the global ocean.
- 3.3. Use Argo Float data to relate changes in seawater temperature and salinity with depth.

- 4.1. Compare and contrast neutral conditions in the tropical Pacific Ocean to El Nino and La Nina conditions.
- 4.2. Analyze observational buoy data in the tropical Pacific.

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

Class Schedule This schedule is subject to change

Please review the chapter and check Eagle Online for any handouts before coming to class

WEEK	DATE	Topics, Assessments & Exercises
week 1	1/18	Introductions, Overview of Course <i>and</i> start oceanography material
week 2	1/23	Chapter 1: Introduction to Planet Earth & start Chap 2.
	1/25	Chapter 2: Plate Tectonics and the Ocean Floor In-class exercise 1: Dynamic Ocean floor
		Complete quiz #1
week 3	1/30	Finish Chap 2.
	2/1	In-class exercise 2: Marine provinces Chapter 3: Marine Provinces Complete Quiz #2 & quiz #3
week 4	2/6	Chapter 4: Marine Sediments
	2/8	Continue discussion of sediments and check out some rocks Complete quiz #4
week 5	2/13	Chapter 5: Water and Seawater
	2/15	In-class exercise 3: salinity & demonstration Complete quiz #5
week 6	2/20	PRESIDENT'S DAY HOLIDAY – no class
	2/22	Exam #1 (chap 1-5)
week 7	2/27	Chapter 6: Air-Sea Interaction
	3/1	Chapter 7: Ocean Circulation exercise 4: Ocean currents Complete quiz #6
week 8	3/6	Chapter 8: Waves and Water Dynamics
	3/8	In-class exercise 5: Waves Complete quiz #7
		SPRING BREAK
week 9	3/20	Chapter 9: Tides
	3/22	Chapter 10: The Coast Complete quiz #8
week 10	3/27	exercise #6 shore + tides (Complete quiz #9)
	3/29	Chapter 11: Coastal Ocean Complete Quiz #10
week 11	4/3	Finish up next set of chapters Withdrawal deadline – April 3
	4/5	EXAM #2 (chap 6-11)
week 12	4/10	Chapter 12: Marine Life and the Environment
	4/12	Chapter 13: Biological Productivity and Energy Transfer
week 13	4/17	InTeGrate: Climate of Change (read Chapter 16: Oceans and Climate Change)
	4/19	InTeGrate Complete Quiz #11 (chap 16)
week 14	4/24	InTeGrate
	4/26	InTeGrate
week 15	5/1	Wrap up Integrate Climate Change module
	5/3	Wrap up semester – prepare for final!
FINALS	Wed 5/10	Final Exam 2pm Do not miss the cumulative final exam

NOTE: Course Syllabus and Class Schedule subject to modification. Any updates to the syllabus and schedule will be posted on EagleOnline.

Instructional Methods

This class is in-person. But I will make use of the EagleOnline tool to post some material online. EagleOnline is available at <https://eagleonline.hccs.edu/>. Class notes, handouts and quizzes will be posted on EagleOnline. You are expected to log-in to the EagleOnline site once or twice a week to check for announcements, keep in communication, and print anything needed for class.

You are spending a good deal of time, energy and money on this course – please, make the most of your investment! It takes approximately 1 hour of study time for each hour of class time to master the material. So set aside ~3 hours outside of class each week.

Student Assignments

A series of worksheets will be assigned during the semester. Most of these will be in-class work, some will be take-home. These worksheets will elaborate on concepts presented in the chapter and during lecture. These are a good chance to work with data and quantitative information related to the ocean. The worksheets will be collected and graded. Please pay attention to the deadlines for take-home work.

Students will be expected to submit short reports on current events related to oceans and oceanography. These write-ups will be submitted online via a Discussion Forum style tool. Instructions and expectations for the assignment will be described on EagleOnline.

Near the end of the semester we will spend a couple weeks exploring climate change or another related topic. This project will include reading assignments, group work, in-class discussion and some data analysis.

Student Assessments

Quizzes: will be assigned nearly weekly. These will be available on-line on our EagleOnline site. Quizzes will cover information from specific chapters or pairs of chapters. Quizzes will be available on-line for 3 – 5 days. Pay attention to the quiz deadline so that you don't miss out on the points! These will be the most frequent way of determining if you are keeping up with course material and will allow me to know what topics might need additional clarification. There are NO make-up quizzes for any reason.

Examinations: During the semester there will be 2 exams, and a final exam will wrap-up the semester material during finals week. The exams will consist of a variety of question types including multiple choice, fill-in, short answer, image labeling and sketching. Prior to the exam I will let you know about any materials you will need (ie: calculator, colored pencils, rulers, etc). Exam dates are indicated on the course calendar listed earlier in this syllabus. The Final Exam will include questions from the entire semester cumulatively.

- **During exams:** During exams the only thing you will be permitted to have at your desk are your writing tools. All notebooks, books, bags, purses, backpacks, phones, iPods, snacks, and anything else will be placed along the walls or cabinets. If you do not wish to put your belongings on the floor, then you may want to arrange to leave them somewhere else during the exam.

FINAL EXAM! IMPORTANT DATE! – The final exam for this class is at 2:00 pm, Wed., May 10.

Instructor's Requirements

Missed Examinations: As a rule, **no make-up** exams will be given and a grade of 0 will be earned if an exam is missed. Should an exam be missed due to an exceptional situation beyond the student's control, the situation will be assessed on a case-by-case basis but the instructor should be notified of the situation as soon as possible. Ideally, students should contact the instructor prior to missing a scheduled examination in-person or by e-mail. Contacting the instructor well in advance of any known exam date conflict is more *likely* to result in a permitted alternative exam date but is not guaranteed.

Cell Phone Policy: Cell phones are important to many of us for communication. However, in the classroom they are distractions. Your job in class is to learn and participate as much as possible. Cell phones and pagers and similar devices should be turned to silent (as in NO NOISE AT ALL) while you are

in class. If you need to take/make an emergency call you may talk in the hallway. If you are texting or otherwise fiddling with your device during class you will be asked to put it away. If your phone habits become a nuisance to the classroom you will be asked to leave.

Tardiness: Class starts at 2pm. Arriving to class late is disruptive. If this happens once or twice it may be overlooked if you come in quietly. If you are frequently late to class it is a problem and you can expect me to start a conversation with you about how to solve the problem. Additional tardies may necessitate counselor involvement.

Technical Compliance: We will use EagleOnline (Canvas), an internet-based learning management system, which will be used to compliment the classroom course. Additional information on how to access EagleOnline and on the course resources that will be available through it will be provided in class. You are expected to check the EagleOnline site every few days to view pre-class assignments, announcements or messages from the instructor. This will also be where quizzes are hosted as well as review materials. Students are expected to maintain a state of technical compliance, including (but not limited to): up-to-date software as required by Connect and EagleOnline (Canvas); a stable Internet connection. The instructor is NOT required to give consideration for lost/missing/unacceptable work stemming from technical non-compliance and/or end-user technical issues. FORM A BACK-UP PLAN – consider NOW where you will go if your home loses power or internet service before you have completed an assignment.

Program/Discipline Requirements:

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/>

Where can you get help? Visit me during office hours. Contact me to meet at a time outside of office hours. Get help online via: <https://hccs.upswing.io/> this is HCC's online tutoring service. Search for in-person tutoring at HCC at: <http://ctle3.hccs.edu/alltutoring/> .

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.

Instructor Grading Criteria

Grades for this course are earned based on the divisions listed below. Some consideration is given, when assessing borderline grades, to those students who have demonstrated steady progress and who have actively contributed to class sessions during the semester. (**Note: Students are responsible to keep up-to-date on their cumulative grade total.**)

Quizzes (EO)	=	15% of grade
In Class Exercises	=	12% of grade
Pre-class questions	=	8% of grade
Current Event discussions	=	5% of grade
Exam #1	=	15% of grade
Exam #2	=	15% of grade
Final Exam	=	20% of grade
<u>Climate Change Project</u>	=	<u>10% of grade</u>
Total	=	100%

Final letter grade will be assigned according to the following scale: A = 90 – 100%, B = 80 – 89%, C = 70 – 79%, D = 60 – 69%, F = \leq 59%

Extra Credit: There will be a few extra credit opportunities during the semester. These are good opportunities to add more points to your total score.

Instructional Materials

Textbook: *Essentials of Oceanography*, 12th ed., by Trujillo and Thurman; Pearson/Prentice-Hall, 2017 (ISBN 9780134253947)

HCC Policy Statements – Read the HCC Student Handbook:

- Many of the following topics are included in the HCC Student Handbook. You should refer to it on-line: <http://www.hccs.edu/district/students/student-handbook/>

Attendance:

The **HCCS** attendance policy is stated as follows: “Students are expected to attend classes regularly. Students are responsible for materials covered during their absences, and it is the student's responsibility to consult with instructors for make-up assignments. Class attendance is checked daily by instructors. Although it is the responsibility of the student to drop a course for non-attendance, the instructor has full authority to drop a student for excessive absences. A student may be dropped from a course for excessive absences after the student has accumulated absences in excess of 12.5% of the hours of instruction (including lecture and laboratory time).”

- Note that 12.5% is approximately 4 class meetings for a class such as this one that meets once a week for 1.5 hours twice a week in a normal 16 week semester.

Class attendance, tardiness, and leaving early will be recorded. Tardiness is rude and disruptive, please arrive on time. A student's attendance is taken into consideration when deciding borderline course grades. To the best of your ability, please contact me BEFORE you will be absent so accommodations can be made if possible. I realize that sometimes outside circumstances can interfere with school, but please be aware of the attendance policy. Vacations are not “excused absences”.

If you miss class it is your responsibility to find out what assignments or other class material you missed by asking the professor or your classmates.

Religious Holidays: If you observe a religious holiday and miss class or cannot take an exam, 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”.

Withdrawal Policy: The withdrawal deadline is **4:30PM, Monday, April 3**. It is the student's responsibility to withdraw from class. A week or 2 prior to the withdraw deadline I might contact you to ask if you intend to stay in the class based on your attendance or scores. You are able and capable of adding the course to your schedule, so you are able

and capable of removing it when you decide to drop. If you do not drop and simply stop participating without withdrawing you WILL receive an FX at the end of the semester.

Student with Disabilities (ADA):

HCCS is committed to compliance with the American with Disabilities Act and the Rehabilitation Act of 1973 (section 504)

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.

<http://www.hccs.edu/district/students/disability-services/ada-counselors/>

Central College

713.718.6164

Coleman College

713-718-7376

Northeast College

713-718-8322

Northwest College

713-718-5667

713-718-5408

Southeast College

713-718-7053

Southwest College

713-718-7909

Adaptive Equipment/Assistive Technology

713-718-6629

713-718-5604

Interpreting and CART services

713-718-6333

Policy on Recording Devices: Use of recording devices (camera phones, cameras, audio/tape recorders, video recorders, and any other electronic device that is capable of recording the human voice or image) is prohibited in classrooms, laboratories, faculty offices, and other locations where instruction, tutoring, or testing occurs. 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 and Title IX: Title IX of the Education Amendments of 1972 requires that institutions have policies and procedures that protect students' rights with regard to sex/gender discrimination. Information regarding these rights is on the HCC website under Students-Anti-discrimination. Students who are pregnant and require accommodations should contact any of the ADA Counselors for assistance. It is important that every student understands and conforms to respectful behavior while at HCC. Sexual misconduct is not condoned and will be addressed promptly. Log in to <http://www.edurisksolutions.org>. Sign in using your HCC student email account, and then go to the button at the top right that says **Login** and enter your student number.

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.

Early Alert: HCC has instituted an Early Alert process by which your professor may "alert" you and counselors that you might fail a class because of excessive absences and/or poor academic performance. A counselor will then reach out to you to discuss your progress and offer any relevant resources. This initiative is designed to provide students with support services and resources to assist them in successfully completing their course. See the [Student Handbook](#) for additional details.

Access Student Services Policies on their Web site:

<http://www.hccs.edu/district/about-us/procedures/student-rights-policies--procedures/>

And also check out the HCC Student Handbook: <http://www.hccs.edu/district/students/student-handbook/>

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 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.