



	Instructor	Assistant
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<b>Office Hours:</b>	by appointment	12pm – 2pm Tuesday/Thursday
<b>Website:</b>	<a href="http://www.facebook.com/ColoOcean">www.facebook.com/ColoOcean</a>	

<b>Term:</b>	Fall 2018
<b>Class Meeting Days:</b>	Tuesday and Thursday
<b>Class Meeting Hours:</b>	2:00-3:15 PM
<b>Class Location:</b>	Forestry 127
<b>Course Credits:</b>	3

### Course Overview

Over half the world's population lives concentrated in coastal areas. Yet, coastal areas encompass only ~10% of the earth's land surfaces. The coastal population is expected to rise, further intensifying the pressure human activity has on coastal zones.

Coastal areas are of great interest: here land and ocean meet. Any changes in either the oceans or on land will affect each other. It is in our best interest to manage and to protect our ecologically diverse coastal areas so they will sustain their value. But balancing human use of coastal areas with ecosystem health is a challenging task. Urban development leads to natural habitat loss, including the loss of wetlands, marshlands, mangrove forests, and sand dunes. The coastal ocean is the richest fishing ground, and overfishing in many parts of the world has led to the demise of fish. Pollution of water and air adds to the problem.

The list of physical resources found in coastal oceans is long and includes oil, gas, sand, gravel, and minerals. Harvesting these marine resources is dangerous and costly. Climate change imposes a

major threat for coastal areas. Ocean temperatures are rising and ocean chemistry is changing. As a result marine species distribution is changing. Coral reefs are especially susceptible to climate change and ocean acidification. Ice sheets and glaciers melt and ocean water expands due to rising temperatures. Consequently sea level rises. Sea level rise poses many risks: low-lying coastal infrastructures will be flooded. Wind patterns are shifting and floods and storm surges will affect low-lying areas. Coastal environments are changing, affecting both marine and terrestrial ecosystems.

### **Course Learning Objectives**

After completing this course, the successful student will be able to:

Distinguish fundamental understanding of oceanic processes and interaction between oceans, atmosphere, and coastlines.

Assess the extent of global coastal changes (natural and human-caused) and their effects on coastlines.

Discuss how coastal areas should be best managed to balance human interest with protecting valuable habitats for wildlife and fisheries.

### **Course Prerequisite:**

Chem 107 or equivalent

### **Texts and Materials**

Supplementary material accessible through the students' university accounts (TBA)

Material posted on Canvas site

For review of fundamental principles of oceanography (optional) or for further readings (optional), please contact instructor.

### **Library & Research Help**

The CSU Libraries Help Desk provides basic research and technical assistance either in person at Morgan Library or by phone at 970-491-1841. Virtual assistance is also available via the Libraries' Ask Us chat and email services (<http://lib.colostate.edu/help/ask-us>). Jocelyn Boice is the librarian supporting the Forest and Rangeland Stewardship Department and this course. Contact her for in-depth assistance at: [jocelyn.boice@colostate.edu](mailto:jocelyn.boice@colostate.edu) / 970-491-3882.

### **Important Dates to Remember**

Last Day to Add/Drop Classes

without an Instructor Override:

Sun, Aug 26th, 2018

Registration Closes:

Wed, Sep 5th, 2018

Withdrawal Deadline:

Mon, Oct 15th, 2018

Fall Recess:

Sat, Nov 17-Sun, Nov 25

Last Day to Process a University Withdrawal:

Fri, Dec 7th, 2018

Final Exam Week:

Dec/10-Dec/14

### **Dates for Exams**

Midterm Exam: Tues, Sept 25<sup>th</sup>

Final Examination: Thurs, Dec 13<sup>th</sup> 9:40-11:40 AM

## Course Schedule

THIS CLASS SCHEDULE IS SUBJECT TO CHANGE. It is your responsibility to check Canvas for updates.

### Week 1

- Tu – 08/21: Introduction
- Th – 08/23: Plate Tectonics

### Week 2

- Tu – 08/28: Coastlines: Works in Progress
- Th – 08/30: Coastlines (cont.) & Sand Wars (Part I)

### Week 3

- Tu – 09/04: Sand Wars (cont.)
- Th – 09/06: Student Presentations (1): Types of Coasts

### Week 4

- Tu – 09/11: Student Presentations (1): Types of Coasts
- Th – 09/13: Dispersion Across Ocean Basins via Gyres: Effects on Coastal Environments

### Week 5

- Tu – 09/18: Plastic in the Ocean
- Th – 09/20: Plastic in the Ocean (cont.)

### Week 6

- Tu – 09/25: Earth's radiation balance & Greenhouse Gas CO<sub>2</sub> - Midterm Due
- Th – 09/27: Ocean Acidification

### Week 7

- Tu – 10/02: Student Presentations (2): Indirect and Direct Pressures on Coastal Regions
- Th – 10/04: Student Presentations (2): Indirect and Direct Pressures on Coastal Regions

### Week 8

- Tu – 10/09: Global Atmospheric Circulation & El Niño Southern Oscillation
- Th – 10/11: Sea Level Rise

### Week 9

- Tu – 10/16: Eutrophication and hypoxia/Ecosystem Fragmentation
- Th – 10/18: Marine Light Pollution

### Week 10

- Tu – 10/23: Student Presentations (3): Perils in Coastal Ecosystems
- Th – 10/25: Student Presentations (3): Perils in Coastal Ecosystems

### Week 11

- Tu – 10/30: Ocean Film Fest
- Th – 11/01: Ocean Film Fest

### Week 12

- Tu – 11/06: Student Presentations (4): Where the River Meets the Sea

- Th – 11/08: Student Presentations [4]: Where the River Meets the Sea

Week 13

- Tu – 11/13: Invasive species
- Th – 11/15: Coral reef resilience

FALL RECESS: Sat, Nov 17th – Sun, Nov 25th, 2018

Week 14

- Tu – 11/27: Chlorinated hydrocarbons and petroleum hydrocarbons
- Th – 11/29: Final Presentations

Week 15

- Tu – 12/04: Final Presentations
- Th – 12/06: Final Presentations

Week 16

- Thurs, Dec 13<sup>th</sup> 9:40-11:40 AM  
Student Presentations: Final  
Final Exam due at the end of class

**Basis for Final Grade**

Assessment	Percent of Final Grade
a. Midterm	10%
b. Final	10%
c. Student Presentations [4]	40%
d. Discussions	10%
e. Participation	10%
f. Final Presentation (10%) and Paper (10%)	20%
	100%

CSU grading scale:

Letter grade	% range
A+	97-100
A	93-96
A-	90-92
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	70-76
D	60-69
F	<60

If you contest any grade, it must be done within one week of the assignment date.

## **Course Policies**

### **Late Work Policy**

There are no make-ups for in-class writing, student presentations, or exams, unless students have an excused absence or made an arrangement with the instructors beforehand.

### **Grades of "Incomplete"**

Per university policy, an instructor may assign temporary grade of Incomplete to a student who demonstrates that he or she could not complete the requirements of the course due to circumstances beyond the student's control and not reasonably foreseeable. A student must be passing a course at the time that an Incomplete is requested unless the instructor determines that there are extenuating circumstances to assign an Incomplete to a student who is not passing the course. When an instructor assigns an Incomplete, he or she shall specify in writing using the Department Incomplete Grade Form the requirements the student shall fulfill to complete the course as well as the reasons for granting an Incomplete when the student is not passing the course. The instructor shall retain a copy of this statement in his or her grade records and provide copies to the student and the department head or his or her designee. (Section I.6 of the *Academic Faculty and Administrative Professional Manual*)

### **Disability Access**

Colorado State University is committed to providing reasonable accommodations for all persons with disabilities. Students with disabilities who need accommodations must first contact Resources for Disabled Students before requesting accommodations from the professor. Resources for Disabled Students (RDS; <http://rds.colostate.edu/home>) is located in room 100 of the General Services Building. Their phone is (970) 491-6385 (V/TDD). Students who need accommodations in this course must contact the professor at the beginning of the semester to discuss needed accommodations.

### **Attendance Policy**

*Instructors and departments are responsible for establishing attendance policies for classes and examinations. These policies must accommodate student participation in University-sanctioned extracurricular/co-curricular activities. Students must inform their instructors prior to the anticipated absence and take the initiative to make up missed work in a timely fashion. Instructors must make reasonable efforts to enable students to make up work which must be accomplished under the instructor's supervision (e.g., examinations, laboratories). In the event of a conflict in regard to this policy, individuals may appeal using established University procedures.*

*For the purposes of this regulation, University-sanctioned activities include competitions, events and professional meetings in which students are officially representing the institution. Appropriate sanctioned activities include:*

- a. Intercollegiate athletics;*
- b. Collegiate club sports and competitions;*
- c. Conferences and workshops recognized by the University not related to academics;*
- d. Commitments on behalf of the University (ASCSU, band, etc.); and*
- e. Professional activities recognized by the University related to academics.*

*Department heads or their designated representatives must approve sanctioned professional and departmental activities. Other sanctioned activities must be approved by the appropriate program director on record with the Division of Student Affairs offices or the Department of Athletics.*

### **Religious Accommodation**

Participation in official University activities, e.g., an out-of-town athletic event, or special religious observances may provide a legitimate reason for an excused absence. The student is responsible for discussing this with the instructor at the beginning of the semester.

## Final Exam Policy

Final examination week is part of the regular semester. Student attendance shall be consistent with University policy.

If a student has three or more final examinations (not classes) scheduled for the same day or if conflicts of examination times occur, the student may negotiate a time change with the instructors involved. If the parties involved cannot find a mutually agreeable time, the Registrar's Office indicates which courses must be changed. **Note:** The Registrar's Office must be notified at least one week prior to Final Examination Week to allow instructors time to make appropriate accommodations. It is the student's responsibility to initiate negotiations.

Any student who has a conflict with the examination schedule must inform the instructor as soon as possible before the examination. If an agreement cannot be reached between the instructor and student as to the appropriateness of a make-up examination the student should appeal to the department head.

<http://www.registrar.colostate.edu/final-exams>

## Professionalism Policy

Per university policy and classroom etiquette; mobile phones, iPods, *etc.* **must be silenced** during all classroom and lab lectures. Those not heeding this rule will be asked to leave the classroom/lab immediately so as to not disrupt the learning environment. Please arrive on time for all class meetings. Students who habitually disturb the class by talking, arriving late, *etc.*, and have been warned may suffer a reduction in their final class grade.

In your emails, please always include in the subject line the:

- **Course number and your name**

## Academic Integrity

The Department of Forest and Rangeland Stewardship takes academic integrity seriously. At minimum, academic integrity means that no one will use another's work as their own. The CSU writing center defines plagiarism this way:

Plagiarism is the unauthorized or unacknowledged use of another person's academic or scholarly work. Done on purpose, it is cheating. Done accidentally, it is no less serious. Regardless of how it occurs, plagiarism is a theft of intellectual property and a violation of an ironclad rule demanding "credit be given where credit is due."

Source: (Writing Guides: Understanding Plagiarism.

<http://writing.colostate.edu/guides/guide.cfm?guideid=17>)

If you plagiarize in your work you could lose credit for the plagiarized work, fail the assignment, or fail the course. Each instance of plagiarism, classroom cheating, and other types of academic dishonesty will be addressed according to the principles published in the CSU General Catalog (under "Academic Integrity/Misconduct: <http://catalog.colostate.edu/general-catalog/policies/students-responsibilities/> .)

Of course, academic integrity means more than just avoiding plagiarism. It also involves doing your own reading and studying. It includes regular class attendance, careful consideration of all class materials, and engagement with the class and your fellow students. Academic integrity lies at the core of our common goal: to create an intellectually honest and rigorous community. Because academic integrity, and the personal and social integrity of which academic integrity is an integral part, is so

central to our mission as students, teachers, scholars, and citizens, we will ask to you sign the CSU Honor Pledge as part of completing all of our major assignments. While you will not be required to sign the honor pledge, we will ask each of you to write and sign the following statement on your papers and exams:

***"I have not given, received, or used any unauthorized assistance."***

### **Title IX Information**

CSU's Student Sexual Harassment and Violence policy, following national guidance from the Office of Civil Rights, requires that faculty follow CSU policy as a "mandatory reporter" of any personal disclosure of sexual harassment, abuse, and/or violence related experiences or incidents shared with the faculty member in person, via email, and/or in classroom papers or homework exercises. These disclosures include but are not limited to reports of personal relational abuse, relational/domestic violence, and stalking. While faculty are often able to help students locate appropriate channels of assistance on campus (e.g., see the CSU Health Network link below), disclosure by the student to the faculty member requires that the faculty member inform appropriate CSU channels to help ensure that the student's safety and welfare is being addressed, even if the student requests that the disclosure not be shared.

For counseling support and assistance, please see the CSU Health Network, which includes a variety of counseling services that can be accessed at: <http://www.health.colostate.edu/>. And, the Sexual Assault Victim Assistance Team is a confidential resource for students that does not have a reporting requirement and that can be of great help to students who have experienced sexual assault. The web address is <http://www.wgac.colostate.edu/need-help-support>.

Source: <http://oeo.colostate.edu/title-ix-sexual-assault>

### **Non-Discrimination Statement**

Colorado State University does not discriminate on the basis of race, age, creed, color, religion, national origin or ancestry, sex, gender, disability, veteran status, genetic information, sexual orientation, gender identity or expression, or pregnancy. The University complies with the Civil Rights Act of 1964, as amended, related Executive Orders 11246 and 11375, Title IX of the Education Amendments Act of 1972, Sections 503 and 504 of the Rehabilitation Act of 1973, Section 402 of the Vietnam Era Veterans' Readjustment Assistance Act of 1974, as amended, the Age Discrimination in Employment Act of 1967, as amended, The Pregnancy Discrimination Act of 1978, Americans with Disabilities Act of 1990, the Civil Rights Act of 1991, the ADA Amendments Act of 2008, the Genetic Information Nondiscrimination Act of 2008, and all civil rights laws of the State of Colorado.

Accordingly, equal opportunity of employment and admission shall be extended to all persons. The University shall promote equal opportunity and treatment in employment through a positive and continuing affirmative action program for ethnic minorities, women, persons with disabilities, and veterans. The Office of Equal Opportunity is located in 101 Student Services. Source:

<http://oeo.colostate.edu/non-discrimination-statement>

PLEASE FEEL FREE TO CONTACT US VIA EMAIL ANYTIME  
WE WISH YOU AN ENJOYABLE AND SUCCESSFUL SEMESTER.