NR150 – Oceanography
Department of Forest and Rangeland Stewardship
Warner College of Natural Resources

COURSE SYLLABUS

<table>
<thead>
<tr>
<th>Instructor</th>
<th>Assistant Instructor and Lead TA</th>
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<tbody>
<tr>
<td>Name:</td>
<td>Dr. Ursula Quillmann</td>
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<tr>
<td>Office:</td>
<td>Natural Resources 209</td>
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<tr>
<td>Phone:</td>
<td>970-491-7091</td>
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<tr>
<td>E-Mail:</td>
<td><a href="mailto:Ursula.Quillmann@Colostate.Edu">Ursula.Quillmann@Colostate.Edu</a></td>
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<tr>
<td></td>
<td>Bob Buford</td>
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<tr>
<td>Office</td>
<td>Natural Resources 209</td>
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<tr>
<td>Hours:</td>
<td>by appointment</td>
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<td>ONLINE CHAT SESSIONS BY</td>
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<td>APPOINTMENT (please request by</td>
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<td>email)</td>
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<tr>
<td>Facebook:</td>
<td><a href="http://www.facebook.com/ColoOcean">http://www.facebook.com/ColoOcean</a></td>
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</tbody>
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Class Meeting Days: Tuesdays and Thursdays
Class Meeting Hours: 9:30 – 10:45 AM
Class Location: Clark Building, Room A101
Course Credits: 3

Teaching Assistant: Rylee Meyer
Office: Natural Resources 209
Phone: 970-491-7091
E-Mail: Rymeyer@rams.colostate.edu
Office Hours: Mon 11-1, Tu & Th 2-4, Fri 11-2, and by appointment

Teaching Assistant: Kelsey Silver
Office: Natural Resources 209
Phone: 970-491-7091
E-Mail: Ksilver@rams.colostate.edu
Office Hours: Wed 9-10, and by appointment

“We have the choice to use the gift of our life to make the world a better place—or not to bother” Jane Goodall
I. Welcome to NR150-Oceanography

NR150 is a big lecture class and again we have a full auditorium with ~345 students. Despite the large class size, we are dedicated to make this class as personal as we possibly can. We offer tons of office hours per week. One of us will be in the office every day. If you are falling behind or are struggling, contact us sooner rather than later. It is easy to get distracted in a large class like this. Out of respect for your peers and your teaching team, let’s work together to keep the noise level down.

Let me introduce our teaching team to you:

Dr. Ursula Quilmann: I have been teaching NR150-Oceanography since Fall 2011 and I am excited to be teaching this class again this semester. Oceanography never gets boring because there is so much research going on and I’ll do my best incorporate the latest findings into my lectures. Additional research findings will be posted on our Facebook site. I encourage you to alert me if you come across any interesting articles or documentaries related to our class. You can send links to me directly or post them on our Facebook site.

I am a paleoceanographer and my research interests are past abrupt climate changes. As human actions continue to change the Earth’s climate at an alarming rate, it is important to look into past climate changes prior to human influence on the climate to understand how the Earth’s climate system naturally has worked on its own in the past. Understanding past climate changes helps us to better understand the future. The ocean and climate are a coupled system, and the ocean influences the climate by storing and transporting heat. The ocean is also a major reservoir for carbon dioxide, a key greenhouse gas. Such changes are reflected in seawater properties, such as temperature, salinity, and seawater chemistry. Signals of past changes are preserved in ocean sediments. I analyze ocean sediments to learn more about past ocean circulation and climate since the last ice age. I specialize in ocean biogeochemistry, stable isotopes and trace and minor elements in biogenic calcium carbonate of foraminifera (microscopic marine protozoa). I am also interested in the stability of the Greenland ice sheet and past marine ecologies and environments.

In recent years I have become more and more interested in modern oceanography, and I have realized the pressing need to protect our ocean and to protect the unique ecosystems and animals living in the ocean. I am looking forward to sharing my passion and my love for the ocean and our environment with you.

Bob Buford: I have had the pleasure of working with Dr. Quilmann for several semesters assisting her in not only Oceanography but also in her other two classes, NR 130 and NR 370. I have an intense passion about our Oceans and learning more about them both through the classes and outside research. It is vitally important that we take the responsibility to clean up and save our oceans, as they are the engines that power our world. If you find that you are in need of help please come to us sooner rather than later in the semester so that we can assist you and solve any issues you may have. Welcome to Oceanography and I hope you all learn a bit more about the importance of the oceans in our everyday life.

Rylee Meyer: Hi there! I’m Rylee and I am currently a senior natural resource management major with an emphasis in rangeland ecology and conservation biology. I am originally from Mission Viejo, California and this spring will be my 4th semester working with Ursula and Bob! Outside of school and TAing, I enjoy kayaking and hammocking- basically anything outdoors! Unfortunately, due to my class schedule, I will be unable attend Ursula’s classes, however, I will be holding many office hours and I encourage you to stop by with any questions! After taking two of Dr. Quillmann’s classes, I believe the best way to succeed is to attend class to get notes and iClicker points and being on top of all homework
assignments! We are really looking forward to next semester with all of you! Please don’t hesitate to email me with any questions and concerns!

*Kelsey Silver:* Hi everyone, my name is Kelsey and I will be helping this semester in the classroom in both NR130 and NR150. This is my first semester working with this team and I am very excited. I am originally from Denver and am majoring in Environmental Communications as a junior. Besides TAing, I also am a part of ASCSU and enjoy singing and playing piano. From taking one of Ursula's classes before, I would suggest that to be successful it is important to attend class, because a lot of points are given through iclickers. This should be a great semester and we are glad to have you with us! Feel free to contact me with any questions.

We are looking forward to spending the Spring 2016 with you. Please keep a copy of this syllabus with your course notes.

II. Course Overview

Oceanography is an interdisciplinary science, which can be divided into four main disciplines: marine geology, marine chemistry, physical oceanography, and marine biology. To understand the broad-scale features and dynamics of the Earth's oceans, we must understand each of these disciplines. Specific topics include seafloor spreading, marine sediments, salinity, biogeochemical cycles, ocean structure, currents, waves, tides, primary biological production, and marine ecology. The oceans influence global climate and provide important resources and services for humans.

III. Course Goals and Objectives

The goal is for students:
- To understand the ocean processes and the magnitude that oceans play in shaping our planet and our climate
- To appreciate the interdisciplinary links between geological, physical, chemical, and biological systems
- To recognize the changes that may occur with anthropogenic forcing
- To become acquainted with methods and tools oceanographers use
- To become motivated to investigate current issues in oceanography outside the classroom

IV. Required Texts and Materials

- “Essentials of Oceanography, 7th edition” by Tom Garrison
  Copy of the textbook is on reserve at the CSU library and can be checked out 2 hours at a time.
- i-Clicker

V. Important Dates to Remember*

*Please check the official CSU website for updates

Last Day to Add/Drop Classes: January 24th (without overrides)
Withdrawal Deadline: March 21st (with course grade W)
Spring Recess: March 14th to March 17th
Final Examination: May 10th, 9:40-11:40AM in Clarke 101A
Please take a moment and check when your finals are.
VI. Schedule of Exams and Assignments*

*Subject to change

We will send an announcement if we have to make changes to the course schedule.
Midterm 1: February 16th
Midterm 2: March 8th
Midterm 3: April 12th

Due dates for assignments.
Homework 1: February 11th @ 8AM
Homework 2: March 3rd @ 8AM
Homework 3: April 7th @ 8AM
Homework 4: May 5th @ 8AM

VII. Basis for Final Grade

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Percent of Final Grade</th>
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<tbody>
<tr>
<td>a. Midterms (3)</td>
<td>240 points (40%)</td>
</tr>
<tr>
<td>b. Final Exam</td>
<td>120 points (20%)</td>
</tr>
<tr>
<td>c. Homework assignments (4)</td>
<td>120 points (20%)</td>
</tr>
<tr>
<td>d. In-class quizzes (6)</td>
<td>30 points (5%)</td>
</tr>
<tr>
<td>e. Participation</td>
<td>90 points (15%)</td>
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<td></td>
<td>600 points (100%)</td>
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e. Extra Credit: 60 points (10%)

Official CSU grading scale:

<table>
<thead>
<tr>
<th>Letter grade</th>
<th>point range</th>
<th>percentage range</th>
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</thead>
<tbody>
<tr>
<td>A+</td>
<td>579-600</td>
<td>97-100</td>
</tr>
<tr>
<td>A</td>
<td>555-578</td>
<td>93-96</td>
</tr>
<tr>
<td>A-</td>
<td>537-554</td>
<td>90-92</td>
</tr>
<tr>
<td>B+</td>
<td>519-536</td>
<td>87-89</td>
</tr>
<tr>
<td>B</td>
<td>495-518</td>
<td>83-86</td>
</tr>
<tr>
<td>B-</td>
<td>477-494</td>
<td>80-82</td>
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<tr>
<td>C+</td>
<td>459-476</td>
<td>77-79</td>
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<td>C</td>
<td>417-458</td>
<td>70-76</td>
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<td>D</td>
<td>357-416</td>
<td>60-69</td>
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<tr>
<td>F</td>
<td>&lt;357</td>
<td>&lt;60</td>
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If you contest any grade, it must to be done within one week of the assignment date. I-Clicker points must be contested within 24 hours of posting.

a. Midterm Exams: 240 points

There will be three midterms. Each midterm is worth 80 points. In-class exams will test students' understanding of oceanographic concepts and facts, and will be multiple choice, True/False, and fill-in-the-blank questions. The only things allowed on your desk will be a No 2 pencil, and your RamID; we will provide the rest. All electronic devices, books, notes, etc. must remain out of sight while you take the exam (more details under IX Academic integrity).

b. Final exam: 120 points

The final is cumulative and cannot be dropped. Everyone must take the final. Failure to take the final exam will affect your semester grade; your overall grade will drop by one letter grade. Emphasis will be on the new material covered since the third midterm exam. You will be allowed to bring one sheet of 8.5"x11" paper with notes to the exam. You can use both sides; handwritten or typed; please put your name on the sheet and turn it in with your final.

c. Homework: 120 points

There will be four homework assignments, 30 points each. The assignments will be done online on Canvas. The teaching assistants will have office hours to assist with the homework assignments (see first page of syllabus). You are also allowed to work in teams, but each student must submit his or her answers individually. Canvas keeps track of each attempt the student makes to do the homework and records the attempt when the assignment is opened. ‘No computer’ or ‘no internet connection’ problems are not valid excuses for late assignments; so do not wait until the last minute. Late homework will be accepted only if arrangement with the instructor or the TA was made beforehand or the student has a valid excused absence. Other late assignments (not accepted if more than 24 hours late) will be subject to a 20% reduction in grade for the assignment. Due dates are outlined in syllabus.

d. In-class quizzes: 30 points

Six unannounced mini-quizzes (5 points each) will be given during the semester. These quizzes are designed to help boost grades for students, who come to class regularly and participate. These mini-quizzes will give the instructor a chance to see if students understood the material.

Participation: 90 points

There will be 25 lectures, in which you can earn participation points. Participation days are marked with an “i” in the course schedule (see section XI). You can earn 4 points per session (100 points total). YOU HAVE TO ANSWER ALL BUT ONE QUESTION IN ORDER TO RECEIVE THE 4 POINTS FOR THE DAY. Any points over 90 points will count towards extra credit.

Participation points can be earned:
**Participation via iClicker in class**

iClicker technology allows for the engagement of all students, allows for increased course-related communication between students, and facilitates the feedback loop between students and instructor. Summaries of student responses will be shown in real time to both instructor and students. The iclicker questions will provide mini breaks in class, during which you can discuss the answers with your neighbors. There will be no penalty for answering a question incorrectly. You should not feel quizzed. You are providing feedback to your instructor.

It is your responsibility to ensure that your iClicker is registered on the CSU iClicker site ([IClicker.Colostate.Edu](https://wsnet.colostate.edu/cwis262/clicker/registration.aspx)) and working properly. (Accommodations will be made for excused absences only (see IX Attendance Policy) On some days I will asked more than four questions (for example, on review days), but I will cap at 4 points maximum per session).

iClicker points will be posted at least once a week. It is the student’s responsibility to check if no points were received. If no points were received, it was likely because:

- The iClicker was not registered properly. You must register your iClicker at the CSU Clicker Registration site [https://wsnet.colostate.edu/cwis262/clicker/registration.aspx](https://wsnet.colostate.edu/cwis262/clicker/registration.aspx) (see VIII of syllabus)
- The student did not participate.
- The iClicker malfunctioned, most often because the batteries gave out. Have a set of spare batteries in your backpack.
- Contact our TA immediately if you have problems registering your iClicker.

**Makeup points CANNOT BE GIVEN unless the student sees us immediately after class; it is the student’s responsibility to make sure they have a functioning i-Clicker.** See “IX Attendance Policy” for exceptions. If your i-Clicker is malfunctioning, it is your responsibility to correct the malfunction before the next lecture.

If your i-clicker has been malfunctioning during class, see us IMMEDIATELY at the end of the class. Turn in the answers on a sheet of paper with the date, your name, student ID, and reason for not having used your i-clicker. We will give you your points for three class sessions maximum for entire semester, if your iclicker was malfunctioning or you forgot to bring your iclicker to class.

**It is considered cheating if you give your i-Clicker to a classmate to click for you when you are absent. Penalty: You and your classmate will lose the entire 10% plus the extra credit earned in the course (up to 10% extra credit). We have to work on this one some more**

e. **Extra credit opportunities**

You can earn up to a total of 60 extra credit (EC) points in extra credit.

- **10 EC points** can be earned by accumulating more than 90 points in the participation category (section VII d).
- **50 EC points** can be earned by taking pop quizzes, brief writing assignments, etc. You have to be in class to learn about these opportunities. Refer to “Attendance Policy” (section IX c) for make-up policy for missed extra credit opportunities.
VIII. iClicker registration

It is your responsibility to register your iClicker at iClicker.colostate.edu and make sure it is working properly. For any questions relating to iClickers, please contact Bob promptly. We will practice using the iClicker in lecture on Thursday, January 21st. Starting Tuesday, January 26th, the iClicker points will count towards your final grade. Follow the link on our Canvas site to the iClicker registration site.

IX. Course Policies

a. 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)

b. Library & Research Help
The CSU Libraries Help Desk provides research and technical assistance either in person at Morgan Library or by phone at 970-491-1841. Jocelyn Boice is the librarian supporting this course. Contact her by email at jocelyn.boice@colostate.edu or by phone at 970-491-3882 to ask questions or to set up an appointment for in-depth research help.

b. 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.

c. Attendance Policy:
It is in your best interest to attend lectures:
- To keep up with class material (exam material)
- To earn the participation points
- To earn extra credit points

Students must inform the instructor or assistant instructor prior to the anticipated absence and take the initiative to make up missed work in a timely fashion. 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:
- Intercollegiate athletics;
- Collegiate club sports and competitions;
- Conferences and workshops recognized by the University not related to academics;
- Commitments on behalf of the University (ASCSU, band, etc.); and
o Professional activities recognized by the University related to academics.
  o 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.

**Students who missed an exam must contact the instructor or assistant instructor (NOT THE TA’s)**
within 24 hours of the missed exam. Make-up exams for unexcused absences will be given at the
discretion of the instructor or assistant instructor and may be given in a different format, such as an
essay exam or an oral exam. Make-up exams are subject to a 20% deduction in grade.

d. 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.

e. 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

f. Professionalism Policy:
**We strive for a positive learning environment, which includes courtesy and respect towards your peers and of the teaching team.**
  o Per university policy and classroom etiquette, mobile phones must be silenced during all
    classroom sessions.
  o **Electronic devices, such as laptops and tablets, are not allowed.** Electronic devices
    encourage multitasking, such as updating your Facebook status, watching movies, or
    online shopping. It keeps you from taking full advantage of all that is offered in this
course. Also students in direct view of a multitasking peer complain about being
distracted, missing important announcements, and scoring lower on exams. Any
exceptions of the use of electronic devices for note taking have to be discussed with us and
approved by us at the beginning of the semester. Those not heeding these rules will be asked to
leave the classroom immediately so as to not disrupt the learning environment.
  o **Please help us to keep the noise level in our lecture hall to a minimum.** You can do this by:
    o Keeping personal communications limited to i-clicker breaks,
    o Arriving on time for all class meetings and not leaving before the class is dismissed.
      Please inform the TA at the beginning of the class if you have to leave early. **The
      lecture starts at 12:30PM and ends at 1:45PM.**
o Students who habitually disturb the class by talking, arriving late, leaving early etc., and have been warned may suffer a reduction in their final class grade.

o When emailing the instructor or TA, please include your full name, CSU ID, and the course number in your email. Emails sent from your CSU RAM email address will be given priority.

g. 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 his/her 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."
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 (see page seven, column two: http://www.catalog.colostate.edu/FrontPDF/1.6POLICIES1112f.pdf ).

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 you to 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."

X. How to succeed in class:
We want you to succeed in our class. But you have to do your part as well.
• Take advantage of the extra credit opportunities.
• We will offer short workshops (optional) throughout the semester: These workshops are not mandatory. Watch for announcements of dates and times for these workshops on Canvas.
Topics of workshops we have planned are:
  o How to succeed in class
  o General study tips
  o Problems registering your i-Clicker
  o Suggestions for studying and preparing for exams
  o How to submit homework assignments online
  o How to prepare your sheet of notes for the final
Please don’t hesitate to contact us if you would like to see additional workshops or have suggestions on how to improve the class. We like to hear from you and we are here to help you.
More tips for success:

• Read the chapter material before coming to the lecture. If you read the material first, it will “sink in” faster during the lecture.
• PDFs of the lectures will be available online before the lecture. Print out and bring to class to make note taking easier.
• Come to class and don’t get behind.
• Start the homework early. Give yourself time to understand the homework questions. You can earn a perfect score on the homework assignments by putting in time and effort.
• Don’t try the homework until you finish the reading and/or we covered the material in class.
• Work together. Scientists often work in groups. You need to do your own thinking, but discussion with your peers is a great way to sort out your thoughts.
• Don’t ever give up!!!! If you feel you are in trouble, ask for help immediately. Don’t wait until it’s too late.

Staying up to date with class matters and for additional information:

• Canvas (attend the optional workshops offered by us)
• We invite you to come to our office hours.
• Optional: Facebook (“like” and follow us on http://www.facebook.com/ColoOcean)
• Email correspondence:
  o Please feel free to email Ursula anytime
  o For iclicker questions, excused absences, grade-related questions, pls email Bob
  o For homework questions or to get help with class material, pls email Rylee and Kelsey
• Throughout the semester we will send you emails. These emails will only be sent to your official CSU email address (____@rams.colostate.edu). Make sure to check your CSU email account regularly or have your CSU email forwarded to your regular email address.
• In your emails, please always include in the subject line the:
  o Course number
  o Your full name
  o Subject
    e.g. Subject: “NR150 - Frank Jones – i-clicker points missing for 10/10” (even if it a response to one of our mass emails to the entire class)
• In your email body, please include your full name and CID
XI. Class Schedule

THIS CLASS SCHEDULE IS SUBJECT TO CHANGE. It is your responsibility to check Canvas for updates.
We will be following the textbook outline pretty closely. I highly recommend you do the readings before you come to the lectures. Doing the readings beforehand enhances your understanding of the material presented during the lectures. You will be tested on the material I covered in class, which may or may not be in the textbook. Dates followed by an i in syllabus denote dates when students can earn participation points.
✓ --- denotes days project and homework become available or are due.

✔

Tu 01/19    Introductions and Syllabus

Th 01/21    Uses and Abuses of the Ocean; Readings: Chapter 15.1-15.5
            Practice i-Clickers (will not count towards the final i-Clicker points count)

Tu 01/26    A History of Marine Science; Readings: Chapter 2

Th 01/28    Earth and Ocean; Readings: Chapter 1

Tu 02/02    Earth Structure and Plate Tectonics; Readings: Chapter 3.1-3.
            ✓ Homework 1 opens online at 11:59PM

Th 02/04    Earth Structure and Plate Tectonics; Readings: Chapter 3.4-3.6

Tu 02/09    Documentary: Drain The Ocean

Th 02/11    Finish documentary and review for Exam 1
            ✓ Homework 1 closes online at 8:00 AM

Tu 02/16    Exam 1: covers material 01/19-02/09

Th 02/18    Ocean Basins; Readings: Chapter 4

Tu 02/23    Water and Ocean Structure; Readings: Chapter 6
            ✓ Homework 2 opens online at 11:59 PM

Th 02/25    Atmospheric Circulation; Readings: Chapter 7.1-7.4

Tu 03/01    Ocean Circulation; Readings: Chapter 8

Th 03/03    Finish material and Review
            ✓ Homework 2 closes online at 8AM

Tu 03/08    EXAM 2: Covers material 02/18 through 03/12

Th 03/10    Joides Resolution

Tu 03/15    no class, spring recess
Th 03/17    no class, spring recess
Tu 03/22 / Waves; Readings: Chapter 9.1-9.10
Th 03/24 / Tides and tsunamis; Readings: Chapter 9.11 and Chapter 10
Tu 03/29 / Movie: Turtle: The Incredible Journey
✔ Homework 3 opens online at 11:59PM
Th 03/31 / Coasts; Readings: Chapter 11
Tu 04/05 / Ocean Sediments (Chapter 5)
Th 04/07 / Finish material and review for Exam 3
✔ Homework 3 closes online at 8:00 AM
Tu 04/12 / Exam 3: Covers material from 03/12 through 04/09
Th 04/14 / Life in Ocean and Ocean; Readings: Chapter 12.4-12.7
Tu 04/19 / Pelagic communities; Readings: Chapter 13
Th 04/21 / Pelagic communities (continued)
Tu 04/26 / Benthic communities; Readings: Chapter 14.1-14.7
✔ Homework 4 opens online at 11:59PM
Th 04/28 / Benthic communities (Part 2) Readings: Chapter 14.8-14.9; 14.11
Tu 05/03 / The Ocean in the Anthropogene Readings: Chapter 15.6-15.11
Th 05/05 / Summary and Review
✔ Homework 4 closes at 8AM

FINAL EXAM
Final Examination: Cumulative final with emphasis on the material covered after Exam 3
May 10th, 9:40-11:40AM in Clarke 101A
Failure to take the final exam will affect your semester grade; your overall grade will drop by one letter grade.

Students should be aware that the contents of this syllabus – including exam dates and readings – may change. The student is responsible for keeping track of these changes through regular class attendance AND by visiting our course site on Canvas!

PLEASE FEEL FREE TO CONTACT US VIA EMAIL
OR
VISIT US DURING OUR OFFICE HOURS IF YOU HAVE ANY QUESTIONS OR CONCERNS.
WE WISH YOU AN ENJOYABLE AND SUCCESSFUL SEMESTER.