OCEAN-10-E8707/E87085-2020S Lab in Oceanography

Course Information

Semester & Year: Spring 2020
Course ID & Section #: OCEAN-10-E8707/E8708-2020S Laboratroy in Oceanogrpahy
Instructor's name: Danny O'Shea
Day/Time: T Th 10:05 a.m. – 11:30 a.m.
Location: HU125
Number of units: 1

Instructor Contact Information

Office location HU125A
Office hours: T Th 11:30- 13:00
Phone number: n/a
Email address: danny-oshea@redwoods.edu

Required Materials

Textbook title: Introduction to Oceanography
Edition: any recent edition (since c.a. 2008)
Author: n/a
ISBN: n/a
Other requirement: [materials, equipment or technology skills]

Catalog Description

An exploration of the conceptual material presented in OCEAN-10. Students will acquire practical laboratory and field experience using oceanographic skills, tests, and procedures. Laboratory exercises focus on chart reading, measurements of seafloor movement, seawater chemistry, wave celerity, and microscopic analysis. Field experience includes examination of coastal geology, wave and beach processes, habitats and marine organisms. Note: This course includes field trips to various marine and coastal areas. The College does not provide transportation.

Course Student Learning Outcomes *(from course outline of record)*

1) Use the formal methodology of the scientific method as an inquiry-based tool to critically evaluate oceanic phenomena.
2) Demonstrate the skills necessary to utilize basic instruments, tools, and tests used in oceanography.
3) Apply classification systems to organize and identify marine features and organisms.

Evaluation & Grading Policy

Grading:

Your grade is based on laboratory performance, field trip participation, lab notebook and your contribution to the final poster project. There are 1000 points available and grades are assigned by the percentage of total points as follows:

1000-900=A | 899-800=B | 799-700=C | 699-600=D | <599=F

Grading Summary:	Points
Laboratories	600 points (40 pts each lab)
Lab notes	200 points (25 pts each entry)
Poster and Presentation	200 points
Total Points:	1,000 points

Prerequisites/co-requisites/ recommended preparation

ENGL-150

Institutional Policies

Special accommodations statement *(*required for online classes)*

College of the Redwoods complies with the Americans with Disabilities Act in making reasonable accommodations for qualified students with disabilities. Please present your written accommodation request at least one week before the first test so that necessary arrangements can be made. No last-minute arrangements or post-test adjustments will be made. If you have a disability or believe you might benefit from disability-related services and accommodations, please see me or contact Disability Services and Programs for Students. Students may make requests for alternative media by contacting DSPS based on their campus location:

- Eureka: 707-476-4280, student services building, 1st floor
- Del Norte: 707-465-2324, main building near library
- Klamath-Trinity: 530-625-4821 Ext 103

Student Access (*required for online classes)

These standards are required by federal regulation. Students will have access to this course that complies with the Americans with Disabilities Act of 1990 (ADA), Section 508 of the Rehabilitation Act of 1973, and College of the Redwoods policies. Course materials will include a text equivalent for all non-text elements; videos will include closed captioning, images will include alt-tags, hyperlinks will use descriptive/meaningful phrases instead of URLs and audio files will include transcripts. All text will be formatted for use with screen readers and all course materials will be understandable without the use of color.

Students who discover access issues with this class should contact the instructor.

Admissions deadlines & enrollment policies

Fall 2020 Dates

- *Classes begin: 1/18/20*
- *Martin Luther King Jr. Day (all-college holiday): 1/20/20*
- *Last day to add a class: 1/24/20*
- *Last day to drop without a W and receive a refund: 1/31/20*
- *Census date: 2/3/20 or 20% into class duration*
- *Lincoln's Birthday (no classes): 2/14/20*
- *Last day to petition to file P/NP option: 2/14/20*
- *President's Day (all-college holiday): 2/17/20*
- *Last day to petition to graduate or apply for certificate: 3/05/20*
- *Spring break (no classes): 3/16/20-3/21/20*
- *Last day for student-initiated W (no refund): 4/3/20*
- *Last day for faculty initiated W (no refund): 4/3/20*
- *Final examinations: 5/9/20-5/15/20*
- *Semester ends: 5/15/20*
- *Grades available for transcript release: approximately 6/1/20*

Students who have experienced extenuating circumstances can complete & submit the ***Excused Withdrawal Petition*** to request an Excused Withdrawal (EW) grade instead of the current Withdrawal (W) or non-passing (D, F & NP) grades. The EW Petition is available from the Admissions and Records Forms Webpage. Supporting documentation is required.

Academic dishonesty

In the academic community, the high value placed on truth implies a corresponding intolerance of scholastic dishonesty. In cases involving academic dishonesty, determination of the grade and of the student's status in the course is left primarily to the discretion of the faculty member. In such cases, where the instructor determines that a student has demonstrated academic dishonesty, the student may receive a failing grade for the assignment and/or exam and may be reported to the Chief Student Services Officer or designee. The Student Code of Conduct (AP 5500) is available on the College of the Redwoods website. Additional information about the rights and responsibilities of students, Board policies, and administrative procedures is located in the College Catalog and on the College of the Redwoods website.

Disruptive behavior

Student behavior or speech that disrupts the instructional setting will not be tolerated. Disruptive conduct may include, but is not limited to: unwarranted interruptions; failure to adhere to instructor's directions; vulgar or obscene language; slurs or other forms of intimidation; and physically or verbally abusive behavior. In such cases where the instructor determines that a student has disrupted the educational process, a disruptive student may be temporarily removed from class. In addition, the student may be reported to the Chief Student Services Officer or designee. The Student Code of Conduct (AP 5500) is available on the College of the Redwoods website. Additional information about the rights and responsibilities of students, Board policies, and administrative procedures is located in the College Catalog and on the College of the Redwoods website.

Class participation and Attendance policy

Attendance at all labs and field trips are required. Oceanography 10L - Laboratory in Oceanography augments the Ocean-10 course and culminates with a poster and presentation of the real-time oceanographic data collected during the semester. The oceanographic observations are derived from a variety of sources currently available for the Humboldt County coastline. The laboratory develops skills reading charts, using digital data loggers, collecting field observations, and interpreting laboratory and microscope data to evaluate and produce the final product. A primary goal of this class is to produce, as a group, a final project in the form of a poster that describing the region, the general oceanography setting, the type of substrates (mud, sand, rock), the influence of physical forces (winds, waves, currents,...) on water quality (temp, salinity, clarity), and the succession of the phyto- and zooplankton during the semester. The project will be worked on during the lab along with a series of demonstrations (labs) designed to help visualize some of the complex processes seen in the field. The product will be designed, written and completed by the students with assistance from the faculty and staff at College of the Redwoods.

Field sampling will take place each week with trips to Hookton Slough to collect water quality data, note oceanographic observations and collect plankton samples. You will need a journal to record your observations, insights and ideas from each field trip, and to contribute to the final project. Your notebook will record the basic observations, winds, temperatures, floods, etc. that occur during the semester and be part of your final grade. This data set will be summarized and put together by you toward the end of the semester.

Grading is based on lab attendance, field trip participation, lab notebook and your contribution to the final poster project. In order to successfully complete the lab work you will need a notebook, calculator, ruler, and writing supplies with an optional set of colored pencils (I have some). You will need to bring appropriate clothing for protection from Sun, Wind, and Rain during the field trips to South Humboldt Bay Area.
The following is a list of parameters to be included as part of the final poster.

1) Topographic and Bathymetric Profiles of the coastal hills, bay and ocean
2) Environmental description of the bay, sand spit, sea cliffs, and coastal seafloor
3) Beach survey the South Spit of Humboldt Bay 2 separate times in several locations

4) A plot of the tides and rainfall runoff and the water clarity of the South Humboldt Bay
5) Time series of the temperature, salinity, Secci depth
6) Observations of sea state conditions and the marine weather
7) Collection and identification of plankton samples
8) Observation of abundance and change of migratory fish, mammals, birds.

The poster will be a compilation of the field data, observations, events, and collected during the semester. The final product is a group effort, however, the grading will be based on the contribution of each individual. There are several components need to be included and so there is ample opportunity to contribute to the final poster. Some of the primary components that will go into the poster are:
Title, Figures, Graphs, Illustrations, Figure captions, Poster Layout, Data processing, Research, References, and Final Production.

Attendance/Participation

Participation is very important and absence will reflect negatively on your performance and final grade. If you miss more than 3 laboratories you will be dropped from this class. Showing up late is disruptive so please come to class on time. Likewise, if you need to leave the class early, please let me know before the class starts. Eating, drinking, texting, and chatting are social activities, and are best done outside the class. Thank-you.

Communication Guidelines

Consider including: response times to emails and messages, availability, times you will not be checking email or messages, your preferred means of contact and any other preferences, such as specifics of email subject lines, encouragement to attend office hours, or similar. You may also want to include a statement on student privacy rights, including the legal rights of students that prevent information from being disclosed to anyone (including parents/guardians) without the student's prior written consent.

Policies - additional

Describe additional policies you have including late work/make-ups, tardiness, and use of personal technological devices.

Information for this Class

Class schedule

Week	Day-Month	Laboratory	Topics
1	21 - Jan 23 - Jan	1) Latitude, Longitude & Time	Nautical Charts
2	29 - Jan 30 - Jan	2) Coastal Geology & South Humboldt Bay	*Field Trip: Table Bluff: Beach Survey
3	4 - Feb 6 - Feb	3) Plate Tectonics Magnetic Reversals	*Hookton Slough Sampling Plate Tectonics
4	11 - Feb 13 - Feb	4) Coastal Marine Sediments	*Hookton Slough Sampling Grain Size Analysis
5	18 - Feb 20 - Feb	5) Salinity Temperature & Density	*Hookton Slough Sampling T – S Diagrams
6	25 - Feb 27 - Feb	6) Marine Weather	*Hookton Slough Sampling Marine Weather Charts
7	3 - Mar 5 - Mar	7) Water Masses & Ocean Circulation	*Hookton Slough Sampling Water Stratification
8	10 - Mar 12 - Mar	8) Ocean Waves	*Hookton Slough Sampling Ocean Wave Prediction
9	17 - Mar 19 - Mar	Spring Recess	No Laboratory
10	24 - Mar 26 - Mar	9) Tsunami	*Hookton Slough Sampling Tsuami Travel Time
11	31 - Mar 2 - Apr	10) Seiche	*Hookton Slough Sampling Tides
12	7 - Apr 9 - Apr	11) Tides and Amphidromes	*Field Trip to Arcata Marsh (tentative)
13	14 - Apr 16 - Apr	12) Estuaries	*Hookton Slough Sampling Estuaries
14	21 - Apr 23 - Apr	13) Primary Producers	*Hookton Slough Sampling Phytoplankton
15	28 - Apr 30 - Apr	14) Zooplankton and Benthos	*Hookton Slough Sampling Zooplankton
16	5 - May 7 - May	15) Marine Adaptations	*Hookton Slough Sampling Ocean Animals
17	13 - May	Final Poster Project Due	Poster Presentation *Field Trip: South Jetty (tentative)

Recommended textbooks & other materials

Any recent Introductory Oceanography textbook of your choice is required to augment the laboratory exercises and activities. Any recent (since 2008) edition of an "Introductory Oceanography" textbook will be suffice for this course. A few of the many editions I can recommend include:

--> Investigating Oceanography by Keith A. Sverdrup and Raphael M. Kudela
Publication Date: 2013 | ISBN-10: 0078022916 | ISBN-13: 978-0078022913

--> Oceanography and Marine Biology: An Introduction to Marine Science by David W. Townsend Publication Date: 2012 | ISBN-10: 0878936025 | ISBN-13: 978-0878936021

--> Essentials of Oceanography (9th Ed.) Alan P. Trujillo & Harold V. Thurman
Publication Date: 2007 | ISBN-10: 0132401223 | ISBN-13: 978-0132401227

--> An Introduction to the World's Oceans by Keith Sverdrup and Virginia Armbrust (9th Ed.)
Publication Date: 2006 | ISBN-10: 0073254835 | 13:978-0073254838

--> Oceanography: An Invitation to Marine Science by Tom Garrison (5th Ed.)
Publication Date: 2004 | ISBN-10: 0534408877 | ISBN-13: 978-053440887

--> Open University also has an excellent series of Oceanography books that are more detail and cover specific topics including:
- The Ocean Basins: Their Structure and Evolution
- Seawater: Its Composition, Properties and Behaviour
- Ocean Circulation
- Waves, Tides and Shallow-water Processes
- Biological Oceanography: An Introduction
- Marine Biogeochemical Cycles

Preferred Name in Canvas

Students have the ability to have an alternate first name and pronouns to appear in Canvas. Contact Admissions & Records to request a change to your preferred first name and pronoun. Your Preferred Name will only be listed in Canvas. It does not change your legal name in our records. See the Student Information Update form.

Canvas Information

If using Canvas, include navigation instructions, tech support information, what Canvas is used for, and your expectation for how regularly students should check Canvas for your class.
Log into Canvas at https://redwoods.instructure.com
Password is your 8 digit birth date
For tech help, email its@redwoods.edu or call 707-476-4160
Canvas Help for students: https://www.redwoods.edu/online/Help-Student
Canvas online orientation workshop: https://www.redwoods.edu/online/Home/Student-Resources/Canvas-Resources

Technology skills, requirements, and support (required for online classes)

Tech equipment and skills are required for student success, and of equal importance as required textbooks and materials,

Students can obtain a free Office 365 license (includes Word, Excel, PowerPoint and more) with a valid CR email.

Necessary Computer Skills - [instructor: identify the computer skills necessary for students to succeed in your course.]

Technology Requirements (computer, other hardware, and software) - [instructor: identify the computer requirements and any hardware or software necessary for students to succeed in your class.]

Technology Support - [instructor: identify your role in providing technology support]

Before contacting Technical Support please visit the Online Support Page. For password issues with Canvas, Web Advisor or your mycr.redwoods.edu email, contact its@redwoods.edu or call 707-476-4160 or 800-641-0400 ext. 4160 between 8:00 A.M. and 4:00 P.M., Monday through Friday.

Gender-Inclusive Language in the Classroom

College of the Redwoods aspires to create a learning environment in which all people feel comfortable in contributing their perspectives to classroom discussions. It therefore encourages instructors and students to use language that is gender-inclusive and non-sexist to affirm and respect how people describe, express, and experience their gender. Just as sexist language excludes women's experiences, non-gender-inclusive language excludes the experiences of individuals whose identities may not fit the gender binary, and/or who may not identify with the sex they were assigned at birth. Gender-inclusive/non-sexist language acknowledges people of any gender (for example, first year student versus freshman, humankind versus mankind, etc.), affirms non-binary gender identifications, and recognizes the difference between biological sex and gender expression.

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Emergency procedures / Everbridge

College of the Redwoods has implemented an emergency alert system called Everbridge. In the event of an emergency on campus you will receive an alert through your personal email and/or phones. Registration is not necessary in order to receive emergency alerts. Check to make sure your contact information is up-to-date by logging into WebAdvisor https://webadvisor.redwoods.edu and selecting 'Students' then 'Academic Profile' then 'Current Information Update.'

Please contact Public Safety at 707-476-4112 or security@redwoods.edu if you have any questions. For more information see the Redwoods Public Safety Page.

In an emergency that requires an evacuation of the building anywhere in the District:

- Be aware of all marked exits from your area and building
- Once outside, move to the nearest evacuation point outside your building
- Keep streets and walkways clear for emergency vehicles and personnel

Do not leave campus, unless it has been deemed safe by the campus authorities.

Del Norte Campus Emergency Procedures

Please review the Crescent City campus emergency map for campus evacuation sites, including the closest site to this classroom (posted by the exit of each room). For more information see the Redwoods Public Safety Page.

Klamath Trinity Campus Emergency Procedures

Please review the campus emergency map for evacuation sites, including the closest site to this classroom (posted by the exit of each room). For more information on Public Safety go to the Redwoods Public Safety Page It is the responsibility of College of the Redwoods to protect life and property from the effects of emergency situations within its own jurisdiction.

In the event of an emergency:

1. Evaluate the impact the emergency on your activity/operation and take appropriate action.
2. Dial 911, to notify local agency support such as law enforcement or fire services.
3. Follow established procedures for the specific emergency as outlined in the College of the Redwoods Emergency Procedure Booklet.
4. If safe to do so, notify key Klamath-Trinity Instructional Site administrators and personnel.
5. Do not leave site, unless it is necessary to preserve life and/or has been deemed safe by the person in command.
6. If safe to do so, move to the nearest evacuation point outside building (Pooky's Park), directly behind the Hoopa Tribal Education Building.

Student Support Services

The following online resources are available to support your success as a student:

- CR-Online (Comprehensive information for online students)
- Library Articles & Databases
- Canvas help and tutorials
- Online Student Handbook

Counseling and Advising offers academic support and includes academic advising and educational planning

Learning Resource Center includes the following resources for students

- Academic Support Center for instructional support, tutoring, learning resources, and proctored exams.
- Library Services to promote information literacy and provide organized information resources.
- Multicultural & Diversity Center [waiting for hyperlink and Mission]
- Math Lab & Drop-in Writing Center

Special programs are also available for eligible students include

- Extended Opportunity Programs & Services (EOPS) provides financial assistance, support and encouragement for eligible income disadvantaged students at all CR locations.
- The TRiO Student Success Program provides eligible students with a variety of services including trips to 4-year universities, career assessments, and peer mentoring. Students can apply for the program in Eureka or in Del Norte
- The Veteran's Resource Center supports and facilitates academic success for Active Duty Military, Veterans and Dependents attending CR through relational advising, mentorship, transitional assistance, and coordination of military and Veteran-specific resources.
- Klamath-Trinity students can contact the CR KT Office for specific information about student support services at 530-625-4821
- The Honors Program helps students succeed in transferring to a competitive four-year school.