

OCEAN 101 - INTRODUCTORY OCEANOGRAPHY (LECTURE) - CRN# 1185

3 Lecture Hours; 3 Units; Letter Grade; Student may petition for Credit/No Credit (FT).

Associate Degree Credit & transfer to CSU and/or private colleges and universities. UC Transfer Course List.

MEETING TIMES: June 18 through July 26 – M-Tu-W-Th -- 11:00 am to 1:05 pm - Room SAN505

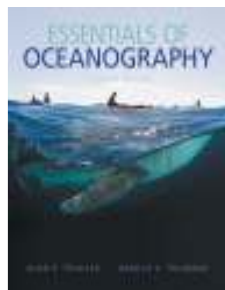
INSTRUCTOR: R. Ray Rector

CONTACT: phone# -760-942-9201, e-mail – oceanprof@seascisurf.com

OFFICE HOURS: To be Arranged / By Appointment

COURSE DESCRIPTION: This course explores the major processes and features of the world's oceans. Topics include the origin and history of the ocean basins, atmospheric circulation and weather, ocean circulation, and the dynamics of waves, tides, and coastlines. The course also reviews marine life (including plankton, nekton, benthos, and marine mammals), explores the oceans as a resource for people, and considers human impacts on marine environments.

OPTIONAL/HIGHLY RECOMMENDED TEXTBOOK: [Essentials of Oceanography](#), 12th or 11th Edition;
Authors: Trujillo & Thurman



12th Edition: Print ISBN: **9780134073545, 0134073541**

eText ISBN: **9780134298092, 0134298098**

11th Edition: Print ISBN: **9780321814050, 0321814053**

eText ISBN: **9780133558890, 0133558894**

COLLEGE'S FREE E-TEXTBOOK: <http://gotbooks.miracosta.edu/oceans>

PROFESSOR'S WEB SITE: www.seascisurf.com Click the "MiraCosta OCEA101 Summer " link

STUDENT LEARNING OUTCOMES: Upon completion of this course, students should be able to:

1. Explain the theory of plate tectonics and relate it to the formation of major sea floor features.
2. Reconstruct the circulation patterns of atmosphere and ocean circulation systems, and analyze their interrelationships.
3. Describe the major principles involved in the formation and behavior of waves and tides, and evaluate their effects on coastal processes.
4. Summarize the major physical properties of the oceans and evaluate how each one affects marine communities and marine life.
5. Summarize the major types of marine pollution, including global warming, and evaluate how each one affects marine communities and marine life.

CLASS ENROLLMENT NOTES: It is the student's responsibility to add, drop, or withdraw from classes before the deadlines stated in the class schedule. Petitions to add, drop, or withdraw after the deadline will not be approved without written proof of circumstances beyond the student's control, which made her/him unable to meet the deadline. Lack of money to pay fees is not considered an extenuating circumstance. Students anticipating difficulty in paying fees before the deadline should check with the Financial Aid Office about sources of funds or other alternatives for which they may be eligible. The last day to drop this course and NOT receive a "W" is June 21, 2018. The last day to change from a letter grade to pass/no pass is June 30th. The very **last day to withdraw** from this course (last day to withdraw with a "W") is Thursday **July 17th**. It is the student's responsibility to drop all classes in which he/she is no longer participating (for online

classes). Students, who remain enrolled in a class beyond the published withdrawal deadline, as stated in the class schedule, will receive an evaluative letter grade in this class.

ACCOMMODATION OF DISABILITY:

If you have a disability, you are encouraged to contact Disabled Students Programs & Services at 795-6658. Their office is located in Building 3000, adjacent to Parking lot 3C. They will help you determine what assistance is available for you.

INSTRUCTOR'S ATTENDANCE POLICY

Attending class meetings is critical to learning in this class, particularly for this condensed, 6-week course. You will most likely fall behind in acquiring course content, vocabulary, concepts, and skills if you do not attend class regularly. I realize that situations can arise that are beyond your control, which could interfere with attending this class, so I do allow for several absences without penalty. A student may be dropped from this course for excessive absences: being absent to more than 15% of the course meetings (4 or more meetings). Attendance is taken every class meeting by means of a sign-up sheet that will be passed around at the beginning of each class. Note that it is your responsibility to sign it in order to receive attendance credit for that class meeting. I will not accept homework or papers from students that are not in attendance on the due date. It will be up to you for staying up with reading assignments, homework, projects, and exams. Make sure and consult the schedule, text, class notes, classroom website, and fellow classmates about the material that was missed during absences. There is no make-up or rescheduling of quizzes or exams unless the student provides proof of some compelling reason for the make-up. It is the student's responsibility to contact me personally to forewarn me of any problem in either, attending the regular-scheduled exams and quizzes, or making assignment due dates. Business, pleasure, or being generally ill, is not a compelling reason. Being horribly sick, or having a death in the family is good reason.

STATEMENT OF RETENTION:

Students, please discuss your plans to withdraw from class with your instructors. They may have options for you that may allow you to continue in class.

CLASSROOM BEHAVIOR AND STUDENT CODE OF CONDUCT:

Students are expected to respect and obey standards of student conduct while in class and on campus. The student Code of Conduct, disciplinary procedure, and student due process (Policy 3100, 3100.1 and 300.2) can be found in the current catalog in the section Academic Information and Regulations pages 39-51, and at the office of the Dean of Student Affairs (H-500). Charges of misconduct and disciplinary sanctions may be imposed upon students who violate these standards of conduct or provisions of college regulations. As your instructor, I have the following expectations of your behavior in this class:

- 1) Promote a positive learning environment by exhibiting mutual respect and consideration of the feelings, ideas, and contributions of others.
- 2) Demonstrate a genuine desire to learn, interact, and improve.
- 3) Demonstrate respect for furniture, tools, equipment, and supplies in the classroom.
- 4) No eating in class – drinks are OK. Clean up after yourself.
- 5) All cell phones and audio players must remain turned off, or in silent mode.
- 6) Cell phones are not allowed during the taking of exams. If you are found with a turned-on cell phone during the taking of an exam, you will receive a "zero" on the exam.
- 7) This class will be conducted in accordance with the college code of student conduct and basic standards of academic honesty. Cheating, plagiarism, or other forms of academic dishonesty are totally unacceptable and will not be tolerated. Violations of standards of academic

honesty will be reported to the school dean for appropriate action. Note: A detailed description of my plagiarism policy for this course is found on the classroom website

Canvas Online Course Quizzes: There are ten (10) required online quizzes for this course and are posted on this course's Canvas page. Each quiz covers a specific set of the course topics, with associated information coming from the textbook, Endless Voyage Videos, instructor's Power Points and class lectures, and the college's E-textbook. These quizzes are available each week and appear in the course schedule with a start date. The due date for each quiz is on the following Monday from posted start date. The online quizzes are open-book, and you can start and stop each test within the multi-day test-taking period. You get three (3) attempts at taking each quiz. The quizzes are independent tests; each student must take their own test without help from others.

GRADING/EVALUATION:

- I. Ten (10) multiple-choice online (on Canvas) quizzes @ 15 points each – No make-ups allowed.
 - II. Four (4) true/false, multiple-choice exams (includes final) @ 100 points each – No make-ups
 - III. Five Fieldtrips (30 points each) - 150 total points
 - IV. No test make-ups or late work accepted - No Exceptions
 - V. Total possible points = 700. Final grade is based on a purely points total percentage.
 - VI. Extra credit is offered (Note: You can earn a maximum of 35 points of extra credit)
- VI. Grading Scale: 100% – 90% = A
89% -- 80% = B
79% -- 70% = C
69% -- 55% = D
< 55% = F

EXTRA CREDIT DEADLINE: All extra credit must be turned in by **Wednesday, July 25th** for credit. Late extra credit work will not be accepted - no exceptions - period.

CONFLICT RESOLUTION: If you feel that you have valid grounds to challenge a grade, you must first attempt to resolve your problem informally with me, your instructor. If the grade challenge cannot be resolved, you must file a petition for grade challenge with the Dean of Physical Sciences who will work with the Department Chair to help resolve the issue. If no resolution, then your next step is to file an appeal with the Vice President of Instruction. The Grade Challenge Procedure may be found in the college catalogue.

MANDATORY FIELD TRIPS:

Five mandatory field trips are tentatively planned for this class: These field trips take place during normal class meeting time, and are a required part of the curriculum. Fieldtrip information including maps, directions, and trip itinerary will be announced the class meeting prior to the fieldtrip, and posted on the classroom website. It is the student's responsibility to know ahead of time the exact meeting location of the fieldtrip, and to arrive promptly at the scheduled meeting time. The student is also responsible for printing out the fieldtrip worksheet and bringing it with them to the fieldtrip. The student is also responsible for signing the attendance sheet at the start of the fieldtrip. **The completed fieldtrip worksheet is due at the end of the fieldtrip - no exceptions.** Bring a clipboard with you to make writing on the worksheet easier. Each fieldtrip is worth up to 30 points. Note there are no "make-up" fieldtrips; you cannot go at another time by yourself to make it up.

- 1) Torrey Pines Beach fieldtrip #1 - Thursday, June 21 from 11:15 am to 12:45 pm
- 2) Blacks Beach fieldtrip #2 - Tuesday, July 3 from 11:15 am to 12:45 pm
- 3) Moonlight Beach fieldtrip #3 - Wednesday, July 11 from 11:15 am to 12:45 pm
- 4) Batiqitos Lagoon fieldtrip #4 - Wednesday, July 18 from 11:15 am to 12:45 pm
- 5) Birch Aquarium fieldtrip #5 - Tuesday, July 24 from 11:15 am to 12:45 pm

MiraCosta Oceanography Schedule – Summer 2018

Date	Class Meeting Lecture and Discussion Topics	Homework Assignments/Testing Textbook Reading (TT and/or GB); Online EV Video Viewing; Quiz and Exam Due Dates
Mon 6/18	Course Introduction Importance of Studying the Ocean Brief History of Marine Science The Scientific Method Origin of Earth, Moon, Ocean, & Life	Course Syllabus and Schedule TT Chapter 1; GB Chapters 1, 2 EV Videos 2 and 9 Canvas Quiz 1 - Syllabus & Sched
Tues 6/19	Geologic Time and Age of the Earth Earth's Layered Physiology Continental Drift Hypothesis Plate Tectonic Theory Seafloor Spreading and Subduction	TT Chapter 2 GB Chapters 3, 4 EV Video 3
Wed 6/20	Evidence for the Plate Tectonic Theory Methods of Studying the Seafloor Continental Margin Seafloor Deep-Ocean Basin Seafloor Marine Sediments	TT Chapters 2, 3, 4 GB Chapters 4, 5, 6 EV Videos 4, 5, 6
Thu 6/21 11:15am	Mandatory Fieldtrip #1 - Torrey Pines Beach - Coastal Geology, Tectonics, and Sediments	See prof's website for field trip info and worksheet
Mon 6/25	Physical and Chemical Properties of Seawater	TT Chapter 5; GB Chapter 7 EV Videos 7, 8 & 9
Tues 6/26	Atmospheric Properties, Processes & Circulation Storm Systems, Weather Patterns and Climate	TT Chapter 6; GB Chapter 8 EV Videos 9 & 10
Wed 6/27	Ocean surface currents and Gyres Upwelling and Downwelling Thermohaline Deep circulation Review for Exam 1	TT Chapter 7; GB Chapter 9 EV Videos 11 and 12 Exam 1 Study Guide & Practice Test Canvas Quiz 2 - TT Chapters 1, 2 Canvas Quiz 3 - TT Chapters 3, 4
Thur 6/28	Ocean Waves – Causes and Dynamics Exam 1 – (Chapters 1 through 4) (Bring a 100-answer scantron card and #2 pencil!)	TT Chapter 8; GB Chapter 10 EV Video 13
Mon 7/2	Wind Waves - Origin and Behavior Breaking Waves – Surfing Origin and nature of Tsunamis	TT Chapter 8; GB Chapter 10 EV Video 13 EV Video 14
Tues 7/3 11:15am	Mandatory Fieldtrip #2 - Blacks Beach - Waves and Currents Review for Exam 2	See prof's website for fieldtrip info and worksheet Exam 2 Study Guide & Practice Test Canvas Quiz 4 - TT Chapter 5 Canvas Quiz 5 - TT Chapters 6, 7
Wed 7/4	Fourth of July Holiday	No Class/No Work

Thur 7/5	Origin and nature of Tides Exam 2 – (Chapters 5 through 7) (Bring a 100-answer scantron card and #2 pencil!)	TT Chapter 9; GB Chapter 11 EV Video 15
Sun 7/8		
Mon 7/9	Coastlines, Beaches, and Shoreline Processes Human Influences on Coastal Environments	TT Chapters 10, 11 ; GB Chapter 12 EV Videos 16, 17
Tues 7/10	Marine Life - Evolution & Classification Marine Life - Physical Factors and Habitats Primary bio-production Types of Phytoplankton and Seaweeds Marine Feeding Relationships	TT Chapters 12, 13 GB Chapters 13, 14 EV Videos 18, 19, 20
Wed 7/11 11:15 am	Mandatory Fieldtrip #3 - Moonlight Beach – Coastal Erosion Review for Exam 3	See professor's website for fieldtrip #3 info and worksheet Exam 3 Study Guide & Practice Test Canvas Quiz 6 - TT Chapters 8, 9 Canvas Quiz 7 - TT Chapters 10, 11
Thur 7/12	Marine Zooplankton and other marine Invertebrates Exam 3 – (Chapters 8 through 11) (Bring a 100-answer scantron card and #2 pencil!)	TT & GB Chapters 13, 14, 15 EV Videos 21, 22, and 23
Mon 7/16	Marine Invertebrates and Fishes In Benthic and Pelagic Marine Communities Last day to withdraw with a "W"	TT & GB Chapters 13, 14, 15 GB Chapters 13, 14, 15 EV Videos 21, 22, and 23
Tues 7/17	Marine Fishes, Mammals and Birds In Benthic and Pelagic Marine Communities	TT Chapters 13, 14, 15 GB Chapters 13, 14, 15 EV Videos 21, 22, and 23
Wed 7/18 11:15am	Mandatory Fieldtrip #4 - Batiquitos Lagoon and Estuary – Marine Habitats and Wildlife, and Environmental Issues	See professor's website for fieldtrip #4 info and worksheet
Thur 7/19	Marine Biological Resources– Marine Fisheries Marine Seafloor Resources – Physical and Energy	Professor's Lectures and Power Points EV Video 24
Mon 7/23	Environmental Concerns -- Coastal Pollution	TT Chapter 11; GB Chapter 17 EV Video 25
Tues 7/24 11:15am	Mandatory Fieldtrip #5 - Birch Aquarium – Focus on Marine Habitats and Sea life, and Environmental Issues	See professor's website for fieldtrip #5 info and worksheet
Wed 7/25	Environmental Concerns – Climate Change Review for Final Exam Extra Credit due date	TT Chapter 16; GB Chapter EV Videos 25 and 26 Final Study Guide & Practice Test Canvas Quiz 8 - TT Chapters 12, 13 Canvas Quiz 9 - Marine Resources Canvas Quiz 10 - TT Chaps 11, 16
Thur 7/26	Final Exam - (Chapters 12 through 15)	Bring a Scantron card

Please Note: This is a tentative schedule and may be changed by the instructor at anytime during the semester. Students will be notified in a timely basis if changes are made.