

OCEA101 – THE OCEANS - (Purely Online/Asynchronous - Canvas) – CRN: [52078](#)

UNITS: 3 Lecture-hour Units; Letter Grade; Student may petition for Credit/No Credit (FT).

DEGREE APPLICABILITY: Yes - Associate Degree Credit

TRANSFERABILITY: Transferable to UC, CSU

ONLINE COURSE DURATION: January 29, 2024 through May 24, 2024 - Purely Online and Asynchronous

INSTRUCTOR: Ray Rector **INSTRUCTOR CONTACT:** e-mail: oceanprof@seascisurf.com

OFFICE HOURS: Wednesdays: 4:30pm to 6:00pm Canvas Discussion Board/Zoom/Chat, Email, and by Appointment

COURSE CANVAS URL: <https://sdccd.instructure.com/login/canvas>

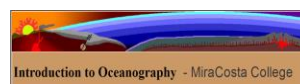
PREREQUISITES: Advisory: ENGL 101 and MATH 38 or Milestone M30 Limitation on Enrollment: This course is not open to students with previous credit for PHYN 120.

COURSE DESCRIPTION: This course is a study of the major features and processes of the world's oceans. Topics include the origin and history of ocean basins; atmospheric and ocean circulation; and the dynamics of waves, tides, and coastlines. Students explore the oceans as a resource for people and analyze and evaluate human impacts on marine environments. This course is intended for all students interested in the world's oceans.

NO TEXTBOOK PURCHASE REQUIRED.

REQUIRED NO-COST OPEN-SOURCE E-TEXTBOOK:

[Oceanography 101](#) - Author: **MiraCosta College**



Digital Copy: [HTTPS://WWW.OERCOMMONS.ORG/COURSES/OCEANOGRAPHY-101-MIRACOSTA/VIEW](https://www.oercommons.org/courses/oceanography-101-miracosta/view)

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 ATTENDANCE, AND ENROLLMENT NOTES, AND DEADLINES: ALL STUDENTS registered in this course prior to the start date **MUST** sign-in into the official Canvas course page sometime on or before the end of the **FOURTH DAY** of classes on the first week of the semester - **Thursday, February 1, 2024**, in order to stay registered in the course. If you do not log by the above date, then I will drop you and give your seat to a waitlisted student.

The last day to withdraw with a refund and with no grade (no "W" placed on permanent record.) is **Friday, February 9, 2024**. The very last day to drop a class with a "W" is **Friday, April 12, 2024** (the official withdrawal deadline). If you fail to withdraw by **4/12/24** and/or stop participating in class, then a final grade must be assigned to you. The deadline to file a petition for PASS/NO PASS grade option is **Friday, April 12, 2024**.

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.

ACCOMMODATION OF DISABILITY: If you have a disability, you are encouraged to contact Disabled Students Programs & Services at 760-795-6658. Their office is in Building 3000, adjacent to Parking lot 3C at the Oceanside campus. They will help you determine what assistance is available for you. Please submit your DSPS paperwork to the instructor in a timely manner.

STATEMENT OF RETENTION: Students, please discuss your plans to withdraw from class with your instructor(s). They may have options for you that may allow you to continue in class.

INSTRUCTOR'S ONLINE COURSE POLICIES

A. Student Work Load Obligations: Independent direction, discipline and motivation of the student are critical to both learning course content and academic success in this online course. It will be up to you, the student, for staying up with homework assignments, quizzes, and exams. Make sure and consult the instructor and/or fellow classmates about anything in this course that you find difficult and/or confusing. There are no make-up exams or accepted late work, 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 completing the regular-scheduled exams or other coursework by their due dates. Business, pleasure, or being generally ill, is not a compelling reason. Being deadly sick, or having a death in the family is good reason. Be ready to supply proper documentation.

B. Instructor-Initiated Contact Policy: This course is taught as a completely on-line course. That is, the communication between the instructor and the students, as well as among students, takes place via electronic means on the Internet. The instructor will be initiating contact with students on a nearly daily basis, via announcements, discussion board posts, email, and by phone. Students are expected to log into this class's MiraCosta Canvas course page regularly (several time per week) to update communication with instructor and fellow students.

C. Course Assignments and Testing: Assignments, either for discussion on the bulletin board, or for completion and return to the instructor, will be posted on the course Canvas classroom page. Student contributions will be evaluated on both the quality (intelligent use of scientific terminology learned from using the textbook and other sources) and quantity (frequency and length) of comments. Reports from students, which are submitted directly to the instructor, will be evaluated based on quality (use of appropriate scientific vocabulary, for instance) and on rigor of the analysis. Testing will occur via the Internet within the Canvas course platform, and tests will use a variety of formats (true-false, multiple choice, matching, short answer, and essay). Quizzes are untimed, open book and students get three attempts per quiz. Exams are timed, open book, and students get only one attempt per exam.

D. Deadlines and Backing-up: Quizzes will be available each week and will appear with a due date. Availability for quizzes and exams prior to the finishing deadline is roughly three to four days. The research writing assignment will not be accepted or submitted following the due date. Note that because it sometimes happens that computer networks (including your own computer) are down or unavailable, it is preferable to get assignments done a day or two earlier, to avoid trying to post an assignment on the very last minute of the due date, only to find that one's Internet Service Provider is down, for example. ALSO, as with any writing endeavor on a computer, YOU MUST ALWAYS BACK-UP ALL YOUR WORK on an external memory device, in timely increments. The excuse that you permanently lost your entire writing assignment file during a computer crash is not acceptable, because those sorts of mishaps are totally avoidable by doing regular backup. Additionally, you need to make sure to have a planned BACK-UP COMPUTER at your disposal: family members, friends, or library, school, or even your own secondary computer/smart phone.

E. Online Netiquette and Student Code of Conduct: This class will be conducted in accordance with the college code of student conduct and basic standards of academic honesty. Students are expected to respect and obey standards of student conduct while interacting online in this course. As your instructor, I have the following expectations of your academic behavior while online:

Promote a positive learning environment by exhibiting mutual respect and consideration of the feelings, ideas, and contributions of others, as reflected in your written dialog. Demonstrate a genuine desire to learn, interact, and improve.

Cheating, plagiarism, or other forms of academic dishonesty are totally unacceptable and will not be tolerated in this class. Violations of standards of academic honesty will be reported to the school dean for appropriate action. A detailed explanation of academic integrity of students is found below:

The academic integrity of the students in this course and the MiraCosta Community College District Standards of Student Conduct, require that all student work including, but not limited to, discussion postings, assignments, essays, papers, and exams be free of plagiarism. Students must fully cite any text, graphics, or others' ideas they include in that work. For additional details, please review [the Standards Of Student Conduct document](#)

As part of my commitment to academic integrity, student work in this course may be submitted to an online plagiarism checking service.

Any student caught cheating or plagiarizing will be subject to the disciplinary procedures given in District Policy 3100, which may include receiving a failing grade for the assignment. Any cheating or plagiarism will be reported to the Dean of Student Affairs. Specifically, the following behaviors are examples of cheating/plagiarism (this list is not exhaustive).

1. Copying directly from the textbook. Note: you can summarize the information from when completing homework assignments, but please phrase homework answers in your own words!
2. Using unauthorized notes while taking an exam, or copying another student's work.
3. Sharing exam answers or collaborating with another student during an exam.
4. Turning in homework that contains large blocks of text that are identical or nearly identical to another student's (both parties will receive zero score).
5. Copying from any source (including the Internet) without citing the source.
6. Turning in work completed for another class (unless pre-authorized by the instructor).
7. Passing off any work as your own that is not. This includes use of work completed by other students.

To avoid any possibility of someone else plagiarizing your work, I highly recommend that you not share any content-specific material (such as test questions and answers and assignment responses) with any other students.

Please note that if I receive any course work from two or more students that is identical or strikingly similar, I reserve the right to assign all such students a score of zero for the assignment in question. Also please note that if I suspect academic dishonesty on an assignment or an exam, I reserve the right to schedule a one-on-one Zoom meeting to give you the opportunity to demonstrate that you understand the answer(s) you supplied. If a student is unable to demonstrate their understanding of an exam/assignment answer, I reserve the right to assign the student a score of zero for that exam/assignment.

If you have any concerns regarding plagiarism or cheating, please contact the instructor.

GRADING/LEARNING ASSESSMENTS: Grading is based on points earned by completing assignments and tests and participating in class. Final course grades are based purely on point percentages without any type of weighting. The following is the course grading points breakdown based on the assessment activity:

I. Quizzes (10 @ 30 points each) = 300 points; Three (3) attempts per quiz; Untimed/Open book.

II. Exams (2 @ 150 points each) = 300 points; Two (2) attempts per exam; Timed/Open book

III. Assignments (5 total @ 160 possible points: **1)** Personal Greeting assignment = 20 pts; **2)** Ocean-Atmosphere Dynamics Topic Discussion Forum assignment = 30 points; **3)** Ocean Concern in the News Assignment = 30 points; **4)** Waves and Coastal Dynamics Topic Discussion Forum assignment = 30 points; **5)** Birch Aquarium Assignment = 50 points

IV. Late Work Policy: Late work only accepted with a timely, legitimate, well-documented excuse.

V. Extra Credit Policy: Extra credit is available – up to 35 points maximum. There are several extra credit assignments available: they include virtual fieldtrips, and a couple other research activities. Up to 35

points of extra credit is allowed in this course. Extra credit assignments are listed in the Extra Credit Folder. The very last day to turn in extra credit work is **Sunday, May 19th, 2024**.

VII. Grading Scale: Your final grade is based purely on total percentage out of possible 760 points

100% – 90% = A

89% -- 80% = B

79% -- 70% = C

69% -- 55% = D

Less than 55% = F

Note: *Minor adjustments to the deadlines and total course grade points may be made by instructor during the semester. If changes are made, the instructor will inform the students in a timely manner.*

IMPORTANT COURSE DATES: Assessment of student learning outcomes for this class includes 10 quizzes, 2 exams, and 3 assignments. Each assessment activity has a specific submittal due date. Make sure to keep a VERY CLOSE track of the class schedule of activities, so that you stay on track with your coursework, and get all your fully completed work turned in on time. I suggest printing out the class schedule and taping it somewhere around your work area so that you can view it regularly.

Below are the important dates for this course (not counting quizzes):

- 1) Quiz and Exam completion dates are all on Sundays.
- 2) Class Personal Introduction Discussion Assignment due by Thursday, February 1, 2024
- 3) Last day to drop class without a “W” is Friday, February 9, 2024
- 4) Ocean-Atmosphere Interface Topic Discussion Forum Assignment due by March 17, 2024
- 5) Midterm exam completion date is Sunday, April 7, 2024
- 6) Last day to drop class with a “W” (withdraw) is Friday, April 12, 2024
- 7) Last day to change grade modality to Pass/No Pass is Friday, April 12, 2024
- 8) Ocean Concerns in-the-News Assignment due Sunday, April 7, 2024
- 9) Waves and Coastal Dynamics Topic Discussion Forum Assignment due by April 28, 2024
- 9) Birch Aquarium Fieldtrip Assignment due Sunday, May 19, 2024
- 10) Last day to turn in extra credit is Friday, May 24, 2024
- 11) Final exam completion date is Sunday, May 26, 2024

Course Testing Schedule

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|---------------------------------|--------------------------------|
| 1) Quiz I: Sunday, February 4 | 7) Quiz VI: Sunday, April 21 |
| 2) Quiz II: Sunday, February 25 | 8) Quiz VII: Sunday, April 28 |
| 3) Quiz III: Sunday, March 10 | 9) Quiz VIII: Sunday, May 5 |
| 4) Quiz IV: Sunday, March 17 | 10) Quiz IX: Sunday, May 12 |
| 5) Quiz V: Sunday, March 24 | 11) Quiz X: Sunday, May 19 |
| 6) Midterm Exam I: April 7 | 12) Final Exam: Sunday, May 26 |

STUDY MATERIALS FOR THIS COURSE: There are FOUR primary sources of oceanographic information at your disposal for successfully completing this course - they are: **1)** Course Textbook: the required, free open-source website textbook that is listed below; and/or an optional/ supplemental textbook (listed below); **2)** The Endless Voyage Streaming Video documentaries, **3)** The instructor’s PowerPoint lecture slides and recorded lectures; and **4)** the oceanography lecture slide video tutorials.

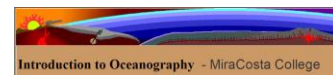
1) Course Textbooks:

The first and foremost course resource is your textbook. Carefully read and study all assigned textbook reading prior to completing the associated quizzes, exams, and assignments. Note below that there are two additional textbooks, one no-cost, one cost, that you can supplement or switch with the MiraCosta 101 text.

The listed cost textbook has a complimentary textbook support site, which has additional resources and activities to help master the curriculum, which includes many good animations.

REQUIRED NO-COST OPEN-SOURCE E-TEXTBOOK:
[Oceanography 101](#) - Author: **MiraCosta College**

Digital Copy: [HTTPS://WWW.OERCOMMONS.ORG/COURSES/OCEANOGRAPHY-101-MIRACOSTA/VIEW](https://www.oercommons.org/courses/oceanography-101-miracosta/view)



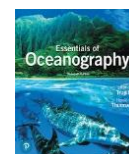
Optional/Supplemental No-Cost Open-Source E-Textbook:
[Introduction to Ocean Sciences](#) - 4th Ed. Author: Segar

Digital Copy: <https://www.reefimages.com/oceans/SegarOcean4Book.pdf>



Optional/Supplemental Pay Textbook:

[Essentials of Oceanography](#) - 13th Ed; Authors: Trujillo & Thurman
Print ISBN: 9780321814050, 0321814053
eText ISBN: 9780133558890, 01335588942) Ocean Video



2) Oceanography Video Documentaries: [Endless Voyage Video Series](#)

The “Endless Voyage” oceanography instructional video series – a set of 26 half-hour lessons that requires a high-speed connection to watch. The “Endless Voyage” video series number(s) correspond to the specific topic(s) of homework study each week within the class schedule below the textbook chapter reading assignments. Note that information found within the “Endless Voyage” videos is included in the test questions within the quizzes and exams.

3) Professor’s Recorded Lectures and PowerPoints: [Professor’s PP Slides](#)

The professor’s recorded lectures and PowerPoint slide presentations provide a wealth of useful information that closely align with the textbook, EV videos, and test questions. Watch the professor’s lectures and view the complimentary PowerPoint presentations prior to completing the associated quizzes, exams, and assignments. The professor’s recorded lectures and PowerPoints can be accessed from the Canvas course site, and specific lectures and PowerPoints are listed for each week of class in the course schedule.

4) Ocean Topics Tutorial Videos: [Introduction to Ocean Lecture Series](#)

An additional set of recorded videos of short earth science slide show presentations, in which each video showcases a specific oceanographic topic, has been created by professor Katryn Wiese of the Earth Sciences Department at City College of San Francisco. These short tutorial videos can be very helpful learning tool to the student for better understanding and reinforcing of the information found in the textbooks and the professor’s lectures. A specific set of these tutorial videos are listed for each week of the course in the schedule, which corresponds to the oceanographic topics covered for that week.

San Diego Mesa Oceans 101 Schedule – Spring 2024

<u>Week #/Days</u> and <u>Due Dates</u>	<u>Study Topics, Tests and Assignments</u>	<u>Homework Study Assignments</u> MiraCosta Oceanography (MCO Text) Intro to Ocean Sciences (IOS Text) Essentials of Oceanography (EO Text) Endless Voyage Videos (EV videos) Prof's PP Slides : (PPP – Prof's Slides) Video Slide Tutorials : (VSL – Tutorials)
Week 1 1/29 – 2/4	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 MCO Ch 1 , 2 and/or (IOS Ch 1 , 2 ; EO Ch 1) EV Videos 1 , 2 PPP 1 , 2 VSL 1 , 2 , 3 , 4 , 5
Thur 2/1	Personal Intro to Class Assignment	Submit by posting on Discussion Board
Sun 2/4	Quiz 1 – Syllabus & Schedule	Course Syllabus and Schedule
Week 2 2/5 – 2/11	Geologic Time and Age of the Earth Earth's Layered Physiology and Interior Continental Drift Hypothesis Intro to the Plate Tectonic Theory	MCO Ch 3 , 4 and/or (IOS Ch 4 ; EO Ch 2) EV Video 3 , 4 PPP 3 , 4 VSL 8 , 9 , 10 , 11 , 12 , 13 , 14 , 15
Friday 2/9	Last day to withdraw from class with NO "W"	
Week 3 2/12 – 2/18	Plate Tectonic Theory Seafloor Spreading and Subduction Evidence for the Plate Tectonic Theory	MCO Ch 3 , 4 and/or (IOS Ch 4 ; EO Ch 2) EV Video 3 , 4 PPP 3 , 4 VSL 8 , 9 , 10 , 11 , 12 , 13 , 14 , 15
Week 4 2/19 – 2/25	Methods of Studying the Seafloor Continental Margin Seafloor Deep-Ocean Basin Seafloor	MCO Ch 5 and/or (IOS Ch 3 ; EO Ch 3) EV Videos 5 PPP 5 VSL 16
Sun 2/25	Quiz 2 – Earth Origins and Plate Tectonics	MCO Ch 1–4; IOS Ch 2-4; EO Ch1, 2
Week 5 2/26– 3/3	Marine Sediments	MCO Ch 6 and/or (IOS Ch 6 ; EO Ch 4) EV Videos 6 PPP 6 VSL 17
Week 6 3/4 – 3/10	Physical and Chemical Properties of Seawater	MCO Ch 7 and/or (IOS Ch 5 ; EO Ch 5) EV Videos 7 , 8 PPP 7 VSL 18 , 19 , 20 , 21 , 22 , 23 , 24 , 25 , 26
Sun 3/10	Quiz 3 – Seafloors and Marine Sediments	MCO Ch 5, 6; IOS Ch 3-6; EO Ch 3, 4

Week 7 3/11 - 3/17	Atmospheric Properties, Processes & Circulation; Storm Systems, Weather Patterns and Climate	MCO Ch 8 and/or (IOS Ch 7 ; EO Ch 6) EV Video 10 PPP 8 VSL 27 , 28 , 29 , 30 , 31
Sun 3/17	Quiz 4 - Seawater Properties	MCO Chapter 7; IOS Ch 5; EO Chapter 5
Sun 3/17	Ocean-Atmosphere Interface Topic Discussion Forum Assignment	Submit on Discussion Board
Week 8 3/18 - 3/24	Ocean Circulation Ocean surface currents and Gyres Upwelling and Downwelling Thermohaline Deep circulation El Nino and the Southern Oscillation (ENSO)	MCO Ch 9 and/or (IOS Ch 8 ; EO Ch 7) EV Videos 11 and 12 PPP 9 VSL 32 , 33 , 34 , 35
Sun 3/24	Quiz 5 – Atmosphere and Ocean Circulation	MCO Ch1–9; IOS Ch 1-8; EO Ch 1-7
Spring Break Week 3/25 - 3/31	No Tests or Assignments	No Class Work
Week 9 4/1 - 4/7	Ocean Waves – Causes and Dynamics Wind Waves - Origin and Behavior Breaking Waves – Surfing Origin and nature of Tsunamis	MCO Ch 10 and/or (IOS Ch 9 ; EO Ch 9) EV Videos 13 and 14 PPP 10 , 11 VSL 36 , 37
Sun 4/7	Midterm Exam	Midterm Study Guide MCO Ch 7, 8; IOS Ch 7-8; EO Ch 6, 7
Week 10 4/8 - 4/14	Origin and nature of Tides	MCO Ch 11 and/or (IOS Ch 10 ; EO Ch 9) EV Video 15 PPP 12 VSL 38 , 39 , 40
Fri 4/12	Last day to withdraw from class with NO “W” Last day to change grade to Pass/No Pass	
Sun 4/14	Ocean Concerns in-the-News Research and Discussion Assignment	Submit on Discussion Board
Week 11 4/15 - 4/21	Coasts, Beaches, and Shoreline Processes Human Influences on Coastal Environments	MCO Ch 12 and/or (IOS Ch 11 ; EO Ch 10) EV Videos 16 , 17 PPP 13 , 14 VSL 41 , 42 , 43 , 44
Sun 4/21	Quiz 6 - Ocean Waves & Tides	MCO Ch 9, 10; IOS 9, 10; EO Ch 8, 9
Week 12 4/22 – 4/28	Marine Life - Physical Factors and Habitats Marine Life - Evolution & Classification Primary Productivity and Marine Food Webs Phytoplankton and Seaweeds Marine Zooplankton, Decomposers, and the Marine Biological Pump	MCO Ch 13 and 14 or (IOS Ch 12 EO Ch 12) EV Videos 18 , 19 , 20 PPP 15 , 16 , 18 VSL 45 , 46 , 47 , 48 , 47 , 48 , 49 , 50 , 51 , 52 , 53 , 54 ,

Sun 4/28	Quiz 7 - Shorelines and Coastal Waters	MCO Ch 11; IOS Ch 11; EO Ch 11, 12;
Week 13 4/29 - 5/5	Intro to Marine Communities Marine Invertebrates Marine Vertebrates Pelagic Marine Communities Benthic Marine Communities	MCO Ch 15 , 16 and/or (IOS Ch 13 , 14 ; EO Ch 13 , 14 , 15) EV Videos 21 , 22 , and 23 PPP 16 , 17 , 19 , 20 , 21 VSL 55 , 56 , 57
Sun 5/5	Quiz 8 - Marine Life I – Overview, Primary Productivity and Plankton	MCO Ch 12-14; IOS Ch 14-15; EO Ch13- 14
Week 14 5/6- 5/12	Marine Fisheries - Environmental Concerns and Habitat Destruction Marine Resources - Concerns and Management	MCO Ch 15 , 16 and/or (IOS Ch 15 , 16 ; EO Ch 14 , 15) EV Video 24 PPP 22 VSL 54 , 55 , 56 , 57 58
Sun 5/12	Quiz 9 - Marine Life II – Marine Animals, Marine Communities, and the Fisheries	MCO Ch 15,16; EO Ch 14,15
Week 15 5/13- 5/19	Environmental Concerns – Coastal Pollution and Climate Change	MCO Ch 17 or (IOS Ch 16 ; EO Ch 11 , 16) EV Video 25 PPP 23 , 24 VSL 58 , 59 , 60
Sun 5/19	Quiz 10 - Marine Pollution & Climate Change	MCO Ch 17; IOS Ch 16; EO Ch 11,16
Sun 5/19	Birch Aquarium Fieldtrip Assignment	See Birch Aquarium Fieldtrip Module
Finals Week 5/20 - 5/26	Review/Study for Final Exam	Final Study Guide
Fri 5/24	Extra Credit due date	Submit in Assignment Folder
Sun 5/26	Final Exam	MCO Ch 10–17; IOS Ch 9-16; EO Ch 8-16

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