Oceanography Syllabus

OCEAN 101 - INTRODUCTORY OCEANOGRAPHY (LECTURE) - crn1374

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.

Spring 2025

MEETING TIMES: Purely Online/Asynchronous/Canvas- 17- Week Duration – January 21 to May 24

INSTRUCTOR: R. Ray Rector **CONTACT**: e-mail – <u>oceanprof@seascisurf.com</u>

OFFICE HOURS: Thursdays: 4:30pm to 6:00pm; Room OC4529 and Canvas (Discussion Board/Zoom/Chat)

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. UC CREDIT LIMITATION: Credit for OCEA 101 or OCEA 101H.

NO TEXYBOOK PURCHASE REQUIRED.

REQUIRED NO-COST OPEN-SOURCE E-TEXTBOOK: MiraCosta Oceanography 101 - Author: MiraCosta

Digital Copy: <u>HTTPS://WWW.OERCOMMONS.ORG/COURSES/OCEANOGRAPHY-101-MIRACOSTA/VIEW</u>

PROFESSOR'S OCEAN ED WEB SITE:

www.seascisurf.com

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STUDENT LEARNING OUTCOMES: OCEA101 CORE COMPETENCIES:

Course student learning outcomes (CSLOs) describe what students should be able to do upon successful completion of OCEA 101. These are assessed using exams, projects, and other assignments.	MCC core competencies are broad general education outcomes that demonstrate real-world skills. Each CSLO is mapped to at least one core competency—this means you gain experience with these skills in OCEA 101.
SLO #1: Explain the theory of plate tectonics and relate it to the formation of major sea floor features.	 Inquiry, analysis, and independent thinking Critical Thinking Written Communication Skills Integration of knowledge Skills for ongoing personal, academic and professional growth
SLO #2: Reconstruct the circulation patterns of atmosphere and ocean circulation systems and analyze their interrelationships.	 Inquiry, analysis, and independent thinking Critical Thinking Written Communication Skills Integration of knowledge Skills for ongoing personal, academic and professional growth
SLO #3: Describe the major principles involved in the formation and behavior of waves and tides and evaluate their effects on coastal processes.	 Inquiry, analysis, and independent thinking Critical Thinking Written Communication Skills Integration of knowledge Skills for ongoing personal, academic, and professional growth
SLO #4: Summarize the major physical properties of the oceans and evaluate how each one affects marine communities and marine life.	 Inquiry, analysis, and independent thinking Critical Thinking Written Communication Skills Integration of knowledge Skills for ongoing personal, academic and professional growth



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CLASS ATTENDANCE, AND ENROLLMENT NOTES, AND DEADLINES: ALL STUDENTS registered in this course prior to the start date <u>MUST</u> sign-in into the official Canvas course page sometime <u>on or before</u> the end of the THIRD DAY of classes on the first week of class - **Thursday, January 23, 2025** 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.

Withdrawal Deadlines: February 13, 2025, is the last day to withdraw with a refund and with no grade (no "W") placed on permanent record.), or **April 28, 2025** (last day to withdraw with a "W" on your transcript). If you stop coming to class, and fail to withdraw by the 4/28/25 deadline, then a final grade must be assigned to you. The last day to change from a letter grade to Pass/No pass is the **Friday, May 23, 2025**.

Student Add/Drop Responsibility: 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 difficultly 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: Student, please discuss your plans to withdraw from class with your instructor prior to dropping. You might have options that may allow you to continue and succeed in class.

COURSE COMMUNICATION CHANNELS: Below are the various means of communication used in this course between professor and student and between students on a weekly basis:

You can contact and talk with me directly in these ways:

- Via college email at rrector@miracosta.edu (please allow 24 hours for a reply)
- Via Canvas Inbox (please allow 24 hours for a reply)
- Via Zoom (by appointment and during my office hour on Thursdays 5:30 7:00pm)
- I will contact you in these ways:
 - Via MiraCosta email
 - Via Canvas Inbox
 - Via Canvas Announcements (at least once a week)
 - Via whole-class or individual feedback on weekly discussions*
 - Via gradebook feedback on each graded assignment and discussion

• Via Canvas gradebook (published grades)

You can contact fellow students in these ways:

- Via Canvas Inbox
- Via weekly discussions*
- Other methods of contact as arranged between students
- Via the Canvas Questions/Help forum
- Via the Chat feature in Canvas

* For most discussions, students will communicate with one another publicly while I will offer individualized feedback through the gradebook.

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, so as 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, <u>YOU MUST ALWAYS BACK-UP ALL YOUR WORK</u> 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. Please review <u>the Standards Of Student Conduct document</u>

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.
- 8. 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.

Instructor's Artificial Intelligence Policy: The use of AI for help in doing coursework is prohibited in this class. The use of generative AI tools (such as ChatGPT, Bard, etc...) is not allowed in this course for any part of a graded assignment, discussion, or assessment. Doing so is considered a violation of the academic honesty standards of MiraCosta College. Violations could result in failure of the assignment and further appropriate action with the Dean's office.

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.

Finally, 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, cheating, or using AI, please contact me, 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 grade points breakdown based on the assessment activity:

- I. Quizzes (10 @ 30 points each) = 300 points; Two (2) attempts per quiz; Untimed/Open book.
- **II. Exams** = (2 @150 points each) = 300 points; One (1) attempt per exam; Timed/Open book
- III. Assignments (4 total @ 140 possible points: 1) Personal Greeting assignment = 20 pts; 2) Seafloor-Ocean-Atmosphere Research and Discussion Forum assignment = 40 points; 3) Ocean Waves and Coastlines Research and Discussion assignment = 40 points; 4) Marine Life and Environmental Concerns Research and Discussion assignment = 40 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 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 18th, 2025.
- VII. Grading Scale: Your final grade is based purely on total percentage out of possible 740 points

100% - 90% = A; 89% -- 80% = B; 79% -- 70% = C; 69% -- 55% = D; < 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 6 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 due dates are on Sundays.
- 2) Class Personal Introduction Discussion Assignment due by Thursday, January 23, 2025
- 3) Last day to drop class without a "W" is Thursday, February 13, 2025
- 4) Seafloor-Seawater-Atmosphere-Ocean Currents Topic Assignment due Sunday, March 23, 2025
- 5) Midterm exam completion date is Sunday, March 30, 2025
- 6) Waves and Coastal Dynamics Topic Discussion Post due Sunday, April 20, 2025
- 7) Last day to drop class with a "W" (withdraw) is Monday, April 28, 2025
- 8) Ocean and Sea Life Environmental Concerns Topic Discussion Post due Sunday, May 18, 2025
- 9) Last day to turn in extra credit is Sunday, May 18, 2025
- 10) Last day to change grade modality to Pass/No Pass is Friday May 24, 2025
- 11) Final exam completion date is Sunday, May 25, 2025

Course Testing Schedule:

Quiz I: Sunday, January 26	Quiz V: Sunday March 23	Quiz VIII: Sunday May 4
Quiz II: Sunday February 16	Midterm Exam: Sun March 30	Quiz IX: Sunday May 11
Quiz III: Sunday March 2	Quiz VI: Sunday April 13	Quiz X: Sunday May 18
Quiz IV: Sunday March 9	Quiz VII: Sunday April 20	Final Exam: Sunday May 25

STUDY MATERIALS FOR THIS COURSE: There are <u>FOUR primary sources</u> 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: <u>https://www.oercommons.org/courses/oceanography-101-miracosta/view</u>

Optional/Supplemental No-Cost Open-Source E-Textbook: <u>Introduction to Ocean Sciences</u> - 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 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.

MiraCosta Intro to Oceanography 101 Schedule – Spring 2025

<u>Week #/Days</u> and <u>Due Dates</u>	Study Topics, Tests and Assignments	Homework StudyAssignmentsMiraCosta Oceanography (MCOText)Intro to Ocean Sciences (IOSText)Essentials of Oceanography (EOText)Endless Voyage Videos (EVvideos)Prof's PP Slides: (PPP – Prof'sSlides)Video Slide Tutorials: (VSL –Tutorials)
Week 1 1/21 – 1/26	Course Introduction and Syllabus Introduction to Oceanography Importance of Studying the Ocean Brief History of Marine Science The Scientific Method	Course Syllabus and Schedule MCO Ch <u>1</u> , <u>2</u> and/or (IOS Ch <u>1</u> , <u>2</u> ; EO Ch <u>1</u>) EV Video <u>1</u> PPP <u>1</u> VSL 1, 2, 3, 4

Thursday 1/23	Personal Intro to Class Assignment	Submit by posting on Discussion Board
Sunday 1/26	Quiz 1 – Syllabus, Schedule and Intro to Oceanography	Course Syllabus and Schedule
Week 2 1/27 – 2/2	Origin of Earth and Moon Origin of Atmosphere, Ocean, and Life Geologic Time and Age of the Earth Earth's Layered Physiology Plate Tectonic Basics	MCO Ch <u>3</u> , <u>4</u> and/or (IOS Ch <u>4</u> ; EO Ch <u>2</u>) EV Videos <u>2</u> <u>3</u> , PPP <u>2</u> , <u>3</u> , VSL 6, 7, 8, 9, 10, 11
Week 3 2/3 – 2/9	Plate Boundaries Seafloor Spreading and Subduction Evidence for the Plate Tectonic Theory California Tectonics Hotspots	MCO Ch <u>4</u> and/or (IOS Ch <u>4</u> ; EO Ch <u>2</u>) EV Video <u>4</u> PPP <u>4</u> VSL 11, 12, 13, 14, 15, 16
Week 4 2/10 – 2/16	Methods of Mapping/Studying the Seafloor Continental Margin Seafloor Features Deep-Ocean Basin Seafloor Features	MCO Ch <u>5</u> and/or (IOS Ch <u>3</u> ; EO Ch <u>3</u>) EV Videos <u>5</u> PPP <u>5</u> VSL <u>16</u>
Thursday 2/13	Last day to withdraw with NO "W"	
Sunday 2/16	Quiz 2 – Origins and Plate Tectonics	MCO Ch 1–4; IOS Ch 2-4; EO Ch1, 2
Week 5 2/17 – 2/23	Marine Sediments Sediment Classification Sediment Sources Shallow Marine Sediments Deep Marine Sediments	MCO Ch <u>6</u> and/or (IOS Ch <u>6</u> ; EO Ch <u>4</u>) EV Videos <u>6</u> PPP <u>6</u> VSL <u>17</u>
Week 6 2/24 – 3/2 Seawater Properties	Physical and Thermal Properties of Seawater Chemical Properties of Seawater Seawater Salinity Dissolved Gasses in 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
Sunday 3/2	Quiz 3 – Seafloors and Marine Sediments	MCO Ch 5, 6; IOS Ch 3-6; EO Ch 3, 4

Week 7 3/3– 3/9	Atmospheric Properties, Processes & Circulation; Storm Systems, Weather Patterns Atmosphere-Ocean Interactions	MCO Ch <u>8</u> and/or (IOS Ch <u>7</u> ; EO Ch <u>6</u>) EV Video <u>10</u> PPP <u>8</u> VSL <u>27</u> , <u>28</u> , <u>29</u> , <u>30</u> , <u>31</u>
Sunday 3/9	Quiz 4 - Seawater Properties	MCO Chapter 7; IOS Ch 5; EO Chapter 5
Week 8 3/10 – 3/16	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 <u>8</u> ; EO Ch <u>7</u>) EV Videos <u>11</u> and <u>12</u> PPP 9 VSL <u>32</u> , <u>33</u> , <u>34</u> , <u>35</u>
Sunday 3/23	Quiz 5 – Atmosphere and Ocean Circulation	MCO Ch 8, 9; IOS Ch 7-8; EO Ch 6, 7
Sunday 3/23	Seawater, Atmosphere & Ocean Circulation Topic Discussion Forum Activity	Submit by Posting on Discussion Board
Spring Break Week 3/17 - 3/23		
Week 9	Midterm Exam Study	
3/24 - 3/30 Midterm Exam	Ocean Wave Basics	Midterm Study Guide Questions MCO Ch 1-9; IOS Ch 1-8; EO Ch 1- 7
3/24 - 3/30	-	MCO Ch 1-9; IOS Ch 1-8; EO Ch 1- 7 MCO Ch <u>10</u> and/or (IOS Ch <u>9;</u> EO Ch <u>9</u>)
3/24 - 3/30	Ocean Wave Basics Wind Waves and Surf - Origin and	MCO Ch 1-9; IOS Ch 1-8; EO Ch 1- 7 MCO Ch <u>10</u> and/or (IOS Ch <u>9;</u> EO
3/24 - 3/30	Ocean Wave Basics Wind Waves and Surf - Origin and Behavior	MCO Ch 1-9; IOS Ch 1-8; EO Ch 1-7 MCO Ch <u>10</u> and/or (IOS Ch <u>9;</u> EO Ch <u>9</u>) EV Videos <u>13</u> PPP <u>10</u> , <u>11</u>
3/24 - 3/30 Midterm Exam	Ocean Wave Basics Wind Waves and Surf - Origin and Behavior Origin and Nature of Tsunami	MCO Ch 1-9; IOS Ch 1-8; EO Ch 1-7 MCO Ch <u>10</u> and/or (IOS Ch <u>9;</u> EO Ch <u>9</u>) EV Videos <u>13</u> PPP <u>10</u> , <u>11</u> VSL <u>36</u> , <u>37</u>

Sunday 4/13	Quiz 6 - Ocean Waves & Tides	MCO Ch 10, 11; IOS 9, 10; EO Ch 8, 9
Week 12 4/14 - 4/20	Marine Life - Physical Factors and Habitats Marine Life - Evolution & Classification	MCO Ch <u>13</u> and/or (IOS Ch <u>12</u> EO Ch <u>12</u>) EV Videos <u>18</u> , <u>19</u> PPP <u>15</u> , <u>16</u> , VSL <u>45</u> , <u>46</u> , <u>47</u> , <u>48</u> , <u>47</u> , <u>48</u> , <u>49</u> , <u>50</u>
Sunday 4/20	Quiz 7 - Shorelines and Coastal Waters	MCO Ch 12; IOS Ch 11; EO Ch 10;
Sunday 4/20	Ocean Waves and Coastal Dynamics	Submit by Posting on Discussion
	Topic Discussion Forum Activity	Board

Week 13 4/21 - 4/27	Marine Food Webs and Feeding Relationships Primary Productivity Phytoplankton and Seaweeds Marine Zooplankton, Decomposers, and the Marine Biological Pump	MCO Ch <u>14</u> or (IOS Ch <u>12</u> EO Ch <u>12</u>) EV Videos <u>20</u> PPP <u>17</u> , <u>18</u> VSL <u>45</u> , <u>46</u> , <u>47</u> , <u>48</u> , <u>47</u> , <u>48</u> , <u>49</u> , <u>50</u> , <u>51</u> , <u>52</u> , <u>53</u> , <u>54</u> ,
Week 14 4/28 – 5/4	Marine Invertebrates Marine Vertebrates Pelagic Marine Communities Benthic Marine Communities	MCO Ch <u>15, 16</u> and/or (IOS Ch <u>13, 14;</u> EO Ch <u>13 14, 15)</u> EV Videos <u>21, 22</u> , and <u>23</u> PPP <u>19, 20, 21</u> VSL <u>55, 56, 57</u>

Monday 4/	28	Last day to withdraw from class with a "W"	
Sunday 5	/4	Quiz 8 - Marine Life I – Overview, Primary Productivity and Plankton	MCO Ch 12-14; IOS Ch 14-15; EO Ch13- 14

Habitats 3) <u>"Overfishing: The Worst and Best</u> Fish to Eat"	Week 15 5/5 - 5/11	Marine Fisheries – Overview Fishing Practices – The Good, Bad, and Ugly Fishing Concerns, Management, and Solutions Physical and Energy Marine Resources Resource Extraction Impacts on Marine Habitats	EV Video <u>24</u> PPP <u>22</u> VSL <u>58</u> Special Reading and Video Selections: 1) <u>Marine Ecosystems & Fisheries</u> <u>Report PDF</u> 2) <u>"Troubled Waters" Fisheries</u> <u>Documentary</u> 3) <u>"Overfishing: The Worst and Best</u>
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Sunday 5/11	Quiz 9 - Marine Life II – Marine Animals, Marine Communities, and the Fisheries	MCO Ch 15,16; EO Ch 14,15
Week 16 5/12 to 5/18	Environmental Concerns – Coastal Pollution and Climate Change	MCO Ch <u>17</u> or (IOS Ch <u>16</u> ; EO Ch <u>11</u> . <u>16</u>) EV Video <u>25</u> PPP <u>23</u> , <u>24</u> VSL <u>58</u> . <u>59</u> . <u>60</u>
Sunday 5/18	Quiz 10 - Marine Pollution & Climate Change	MCO Ch 17; IOS Ch 16; EO Ch 11,16
Sunday 5/18	Ocean and Sea Life Environmental Concerns Topic Discussion Forum Activity	Submit by Posting on Discussion Board
Friday 5/24	Extra Credit due date	Submit in Assignment Folder
Finals Week 5/19 - 5/25	Review/Study for Final Exam	Final Study Guide
Friday 5/23	Pass/No Pass grade option deadline	Last day to change grade to Pass/No Pass
Sunday 5/25	Take 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.