

## MiraCosta Oceanography Schedule – Summer 2018

| Date                | Class Meeting Lecture and Discussion Topics  | Homework Assignments/Testing<br>Textbook Reading (TT and/or GB);<br>Online EV Video Viewing;<br>Quiz and Exam Due Dates                |
|---------------------|--|--|
| Mon 6/18            | Course Introduction<br>Importance of Studying the Ocean<br>Brief History of Marine Science<br>The Scientific Method<br>Origin of Earth, Moon, Ocean, & Life    | Course Syllabus and Schedule<br>TT Chapter 1; GB Chapters 1, 2<br>EV Videos 2 and 9<br><br><b>Canvas Quiz 1 - Syllabus &amp; Sched</b> |
| Tues 6/19           | Geologic Time and Age of the Earth<br>Earth's Layered Physiology<br>Continental Drift Hypothesis<br>Plate Tectonic Theory<br>Seafloor Spreading and Subduction | TT Chapter 2<br>GB Chapters 3, 4<br>EV Video 3   |
| Wed 6/20            | Evidence for the Plate Tectonic Theory<br>Methods of Studying the Seafloor<br>Continental Margin Seafloor<br>Deep-Ocean Basin Seafloor<br>Marine Sediments     | TT Chapters 2, 3, 4<br>GB Chapters 4, 5, 6<br>EV Videos 4, 5, 6  |
| Thu 6/21<br>11:15am | <b>Mandatory Fieldtrip #1</b> - Torrey Pines Beach -<br>Coastal Geology, Tectonics, and Sediments  | See prof's website for field trip info and worksheet<br><b>Canvas Quiz 2 - TT Chapters 1, 2</b>  |
| Sun 6/24            |  | <b>Canvas Quiz 3 - TT Chapters 3, 4</b>  |
| Mon 6/25            | Physical and Chemical Properties of Seawater   | TT Chapter 5; GB Chapter 7<br>EV Videos 7, 8 & 9   |
| Tues 6/26           | Atmospheric Properties, Processes & Circulation<br>Storm Systems, Weather Patterns and Climate   | TT Chapter 6; GB Chapter 8<br>EV Videos 9 & 10   |
| Wed 6/27            | Ocean surface currents and Gyres<br>Upwelling and Downwelling<br>Thermohaline Deep circulation<br><b>Review for Exam 1</b>                                     | TT Chapter 7; GB Chapter 9<br>EV Videos 11 and 12<br><br>Exam 1 Study Guide & Practice Test  |
| Thur 6/28           | Ocean Waves – Causes and Dynamics<br><b>Exam 1</b> – (Chapters 1 through 4)<br>(Bring a 100-answer scantron card and #2 pencil!)                               | TT Chapter 8; GB Chapter 10<br>EV Video 13<br><b>Canvas Quiz 4 - TT Chapter 5</b>  |
| Sun 7/1             |  | <b>Canvas Quiz 5 - TT Chapters 6, 7</b>  |
| Mon 7/2             | Wind Waves - Origin and Behavior<br>Breaking Waves – Surfing<br>Origin and nature of Tsunamis  | TT Chapter 8; GB Chapter 10<br>EV Video 13<br>EV Video 14  |
| Tues 7/3<br>11:15am | <b>Mandatory Fieldtrip #2</b> - Blacks Beach - Waves and<br>Currents<br><b>Review for Exam 2</b>   | See prof's website for fieldtrip info and worksheet<br>Exam 2 Study Guide & Practice Test  |
| Wed 7/4             | <b>Fourth of July Holiday</b>  | <b>No Class/No Work</b>  |

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