Instructor: Dr. Robin Bouse
Textbook: Earth: Essentials of Oceanography by A. P. Trujillo and H. V. Thurman
Lab Manual: Exploring Southern California Oceanography

OBJECTIVE
The goal of this course is to expand your knowledge in all aspects of Earth’s ocean, including the geology, chemistry, physics, and biology. You will learn how these components interact and how the ocean affects your life. You will become comfortable using the scientific vocabulary of oceanography to describe the natural processes you will learn about and observe in class and on alternate site activities. There will be required reading, homework, three exams and four alternate site activities. Some math will be necessary and use of the metric system is essential. At the end of the course, you will be more knowledgeable about plate tectonics, seawater chemistry, ocean circulation, marine organisms, climate change, ocean pollution and your relationship with the ocean.

STUDENT LEARNING OUTCOMES
- Students can identify and use the basic concepts and vocabulary of oceanography.
- Students can recognize and articulate how the ocean affects humans’ lives and how human activities affect the ocean.
- Students can identify and the key elements of the scientific method hypotheses, tests, observations, conclusions/interpretation of observations

AGENDA
Week 1
Introduction, Scientific Method, Origin of Earth and Ocean, Earth’s Interior
8/29
T&T Chapter 1
Lab 1: Map Skills
Lab 2: Contour Maps and Profiles

Week 2
Ocean Floor and Marine Provinces
9/5
T&T Chapter 3
Lab 2: Contour Maps and Profiles continued
Lab 3: Plate Tectonics

Week 3
Plate Tectonics
9/12
T&T Chapter 2
Lab ASA – Cabrillo Aquarium

Week 4
Marine Sediments
9/19
T&T Chapter 4
Lab 4: Sediments
Lab 5: Sedimentary Rock
<table>
<thead>
<tr>
<th>Week</th>
<th>Section</th>
<th>Date</th>
<th>Topics</th>
<th>Chapters/T&amp;F Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 5</td>
<td><strong>EXAM 1</strong></td>
<td>9/26</td>
<td>Water and Seawater</td>
<td>T&amp;T Chapter 5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Lab 6: Water and Seawater Chemistry</td>
<td></td>
</tr>
<tr>
<td>Week 6</td>
<td>Air-Sea Interaction</td>
<td>10/3</td>
<td>T&amp;T Chapter 6</td>
<td>Lab: ASA Redondo Pier</td>
</tr>
<tr>
<td>Week 7</td>
<td>Ocean Circulation</td>
<td>10/10</td>
<td>T&amp;T Chapter 7</td>
<td>Lab 8: Ocean Currents</td>
</tr>
<tr>
<td>Week 8</td>
<td>Waves and Water Dynamics</td>
<td>10/17</td>
<td>T&amp;T Chapter 8</td>
<td>Lab 9: Waves</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lab 10: Tsunamis</td>
</tr>
<tr>
<td>Week 9</td>
<td>Tides</td>
<td>10/24</td>
<td>T&amp;T Chapter 9</td>
<td>Lab 11: Tides</td>
</tr>
<tr>
<td>Week 10</td>
<td><strong>EXAM 2</strong></td>
<td>10/31</td>
<td>The Coast: Beaches and Shoreline</td>
<td>T&amp;T Chapter 10</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lab ASA: Sandy Shores</td>
</tr>
<tr>
<td>Week 11</td>
<td>The Coastal Ocean</td>
<td>11/7</td>
<td>T&amp;T Chapter 11</td>
<td>Lab 12: Shorelines</td>
</tr>
<tr>
<td>Week 12</td>
<td>Marine Animals</td>
<td>11/14</td>
<td>T&amp;T Chapters 12-15</td>
<td>Lab 15: Coral Reefs</td>
</tr>
<tr>
<td>Week 13</td>
<td>Climate Change</td>
<td>11/21</td>
<td></td>
<td>Lab 7: Climate Change</td>
</tr>
<tr>
<td>Week 14</td>
<td>Student Presentations</td>
<td>12/5</td>
<td></td>
<td>Lab ASA: Bluff Cove</td>
</tr>
<tr>
<td>Week 15</td>
<td></td>
<td>12/12</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**GRADING SCALE**

A = 90-100%, B = 80-90%, C = 70-80%, D = 60-70%, <60 = F
**GRADING**
Your grade will be based on the exams, homework, and attendance as follows:

- Three exams = 60%
- Laboratory = 30%
- Presentation = 10%

**EXAMS**
There will be three exams. Each exam will be worth 20% of your grade. Programmable language translators (electronic dictionaries) cannot be used during exams (paper dictionaries are okay). There are no make-up exams without a verifiable written excuse.

**LABORATORY**
Lab grade is based on the weekly completion of all lab activities. You will need to **BUY THE LAB MANUAL** (Exploring Southern California Oceanography) to complete the lab activities. There are no make-up labs and late labs will start with a 15% penalty.

**PRESENTATIONS**
Students will work in pairs on a <10 minute oral presentation. The format will be explained in class.

**HOMEWORK AND READING**
Homework and reading will be assigned on Saturday and will be due the next Saturday. You will need to **BUY THE TEXT BOOK** (Essentials of Oceanography by A. P. Trujillo and H. V. Thurman) so that you can read the assignments and answer homework questions.

**ALTERNATE SITE ACTIVITIES (ASA)**
ASAs will be held at nearby beaches and aquariums. You must fill out and turn in the transportation agreement in the front of your lab book. Directions to each site are in your lab book. Students will meet me at each site. The lab in your book for each ASA should be completed and checked by me before you leave the site.

**ATTENDANCE**
Attendance is expected and will be taken.

**LATE LABS, MISSED EXAMS, TARDINESS, and CELL PHONES**
I expect that there will be none of the above. Late labs will be penalized and missed labs or exams cannot be made up without a verifiable written excuse. Tardiness is disruptive to the whole class, be respectful and be on time. Answering cell phones and private conversations are not allowed in the classroom as they are distracting to the other students.

**UNACCEPTABLE** behaviors in the Standards of Student Conduct include:

1) cheating and plagiarism | 8) private conversations
2) conduct that jeopardizes health and safety | 9) uncooperativeness
3) tardiness | 10) continually leaving ones seat
4) profanity | 11) eating and drinking
5) pornography | 12) reading unrelated materials
6) inappropriate displays of affection | 13) soliciting funds and/or signatures
7) children or pets in class | 14) use of unauthorized electronic devices