Oceanography Lab Syllabus

OCE-3014L-U01– OCEANOGRAPHY LAB
FIU Department of Earth & Environment

Spring 2020

Instructor: Martina Rogers
Email: mrogers@fiu.edu

Day/Time: Thursdays 6:25pm-9:10pm
Office Hours: By appointment Office: PC 326A
Drop Deadline: Monday, January 13, 2020
Last Day to Drop with a DR Grade: Monday, March 16, 2020

LAB OBJECTIVE
Oceanography lab covers major oceanographic processes active at the Earth’s surface: plate tectonics, marine geology and geographic features of ocean basins; marine sedimentation and microfossils; the physical properties of seawater; ocean circulation and currents; waves, tides, and coastal processes; and, extreme forces of nature. You will discover the hidden world beneath the seas and gain greater understanding of how the seas are a window to the past and a signpost to future environmental issues.

LAB MANUAL
Lab worksheets are to be downloaded by the student prior to coming to lab at https://canvas.fiu.edu/login/index.php, where he/she will login with their FIU credentials, select the OCE3014L course, click on “Modules” in the left-hand toolbar, and then access “Oceanography Lab Worksheets”. There is no lab manual to buy; instead, it is your responsibility to print-out the lab exercises that you will complete in lab. You will not have a worksheet printed out for you if fail to bring one to class. You must read lab exercises before each lab. Failing to do it will resolve in changing of syllabus and adding graded quizzes before each lab.

LAB SOP’s

- Labs start on time-you have two hours and forty-five minutes to complete the assignment.
- Lab exercises are completed independently during the lab. If working in a group, each member is to think independently, then complete the assignment using his/her own words/calculations.
- **Definition of an excused absence: A signed medical excuse from the attending physician. NOTE: THREE ABSENCES WILL RESULT IN AN F GRADE**
- If you plan to be absent from a lab to observe a religious holiday, notify your instructor the 1st week of lab (University rule).
- No food or drinks in the lab.
- Cellular phones must be turned off and out of sight.
- Each student will be responsible for lab equipment/materials and for cleaning up his/her area.
- Academic Integrity: Academic dishonesty or disruptive behavior will be reported immediately to the lab manager. Please familiarize yourself with The University’s Code of Conduct http://www.fiu.edu/~jms/standards_of_conduct.htm.
<table>
<thead>
<tr>
<th>Week &amp; Date</th>
<th>Lab #</th>
<th>Topic</th>
<th>Worksheet Download</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1 (01/09)</td>
<td>Intro</td>
<td>Maps &amp; Contour Lines Isobaths</td>
<td>Handout provided</td>
</tr>
<tr>
<td>Week 2 (01/16)</td>
<td>1</td>
<td>Bathymetry, Profiling, Seismic Reflection</td>
<td>Lab 1 Bathymetry</td>
</tr>
<tr>
<td>Week 3 (01/23)</td>
<td>2</td>
<td>Plate Tectonics, Seafloor Spreading, Ocean Geography</td>
<td>Lab 2 Tectonics Ocean Floor</td>
</tr>
<tr>
<td>Week 4 (01/30)</td>
<td>3</td>
<td>Materials of the Seafloor</td>
<td>Lab 3 Seafloor</td>
</tr>
<tr>
<td>Week 5 (02/06)</td>
<td>4</td>
<td>Microfossils &amp; Micropaleontology</td>
<td>Lab 4 Microfossils</td>
</tr>
<tr>
<td>Week 6 (02/13)</td>
<td>N/A</td>
<td>Midterm review</td>
<td>Study guide provided</td>
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<tr>
<td>Week 7 (02/20)</td>
<td>N/A</td>
<td>Midterm covering material from Labs 1-4</td>
<td>N/A</td>
</tr>
<tr>
<td>Week 8 (02/27)</td>
<td>N/A</td>
<td>Spring break – No class</td>
<td>N/A</td>
</tr>
<tr>
<td>Week 9 (03/05)</td>
<td>5</td>
<td>Seawater Parameters</td>
<td>Lab 5 Seawater Parameters</td>
</tr>
<tr>
<td>Week 10 (03/12)</td>
<td>6</td>
<td>Experiments Lab</td>
<td>Lab 6 Experiments</td>
</tr>
<tr>
<td>Week 11 (03/19)</td>
<td>7</td>
<td>Currents: Surface Circulation &amp; Upwelling</td>
<td>Lab 7 Ocean Circulation</td>
</tr>
<tr>
<td>Week 12 (03/26)</td>
<td>8</td>
<td>Waves &amp; Longshore Currents</td>
<td>Lab 8 Waves</td>
</tr>
<tr>
<td>Week 13 (04/02)</td>
<td>9</td>
<td>Forces of Nature: Hurricane Storm Surge &amp; El Nino</td>
<td>Lab 9 Forces of Nature</td>
</tr>
<tr>
<td>Week 14 (04/09)</td>
<td>N/A</td>
<td>Final review</td>
<td>Study Guide Provided</td>
</tr>
<tr>
<td>Week 15 (04/16)</td>
<td>N/A</td>
<td>Final Exam- comprehensive final; however, emphasis is placed on Labs 5-10</td>
<td>N/A</td>
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</tbody>
</table>

The schedule is subject to changes during the semester. If any changes occur, the web page schedule will be updated.

**GRADING**

There are 10 lab exercises. The Introductory Lab counts! Each is worth a maximum of 100 points. At the end of the term your lowest lab score is dropped; then points are totaled for a maximum of 900 points. Remember, **there are no make-up labs** unless you present dated, signed medical documentation or police report/court summons.

<table>
<thead>
<tr>
<th>Lab Exercise Point Total</th>
<th>900 points</th>
<th>50% of grade</th>
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<tbody>
<tr>
<td>Midterm Exam Point Total</td>
<td>100 points</td>
<td>20% of grade</td>
</tr>
<tr>
<td>Final Exam Point Total</td>
<td>100 points</td>
<td>30% of grade</td>
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<tr>
<td><strong>1100 points</strong></td>
<td><strong>100%</strong></td>
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<table>
<thead>
<tr>
<th>Grade</th>
<th>Percent</th>
<th>Grade</th>
<th>Percent</th>
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<tbody>
<tr>
<td>A</td>
<td>94 – 100</td>
<td>C+</td>
<td>77 – 79</td>
</tr>
<tr>
<td>A-</td>
<td>90 – 93</td>
<td>C</td>
<td>70 – 76</td>
</tr>
<tr>
<td>B+</td>
<td>87 – 89</td>
<td>D</td>
<td>60 – 69</td>
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<tr>
<td>B</td>
<td>83 – 86</td>
<td>F</td>
<td>Less than 60</td>
</tr>
<tr>
<td>B-</td>
<td>80 – 82</td>
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