

# Oceanography Lab Syllabus

## **OCE-3014L – OCEANOGRAPHY LAB**

Department of Earth & Environment

**Fall 2010**

**PC 311**

Instructor: Cheng Tao

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Section/Time: Tuesday 11:00 AM – 1:45 PM PC 311

Office Hours: By appointment, Office: PC 329

### **LAB OBJECTIVE**

Oceanography lab covers major oceanographic processes active at 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**

Laboratory exercises & reading handouts are to be downloaded by the student prior to coming to lab at:

<http://fiu.edu/~arnoldd>

In other words, there is no lab manual to buy; instead, it is your responsibility to print-out the lab exercises that you will complete in 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 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.**
- **If you plan to be absent from a lab to observe a religious holiday, notify your instructor the 1<sup>st</sup> 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](http://www.fiu.edu/~jms/standards_of_conduct.htm).

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<b>Week</b>	<b>Lab #</b>	<b>Topic</b>	
<b>1</b> Tues 8/24	Intro.	Maps & Contour Lines/Isobaths	Intro Handout (provided)
<b>2</b> Tues 8/31	1	Bathymetry, Profiling, Seismic Reflection	Download #1
<b>3</b> Tues 9/7	2	Plate Tectonics—Sea Floor Spreading, Ocean Geography	Download #2
<b>4</b> Tues 9/14	3	Materials of the Sea floor	Download #3
<b>5</b> Tues 9/21	4	Microfossils & Micropaleontology	Download #4
<b>6</b> Tues 9/28		Midterm Review	
<b>7</b> Tues 10/5		<b>Midterm covering above topics (20% of Grade)</b>	
<b>8</b> Tues 10/12	5	Seawater Parameters	Download #5
<b>9</b> Tues 10/19	6	Experiments Lab	Download #6
<b>10</b> Tues 10/26	7	Currents: Surface Circulation & Upwelling	Download #7
<b>11</b> Tues 11/2	8	Waves and Longshore Currents	Download #8
<b>12</b> Tues 11/9	9	Forces of Nature: Hurricane Storm Surge & El Nino	Download #9
<b>13</b> Tues 11/16	10	Remote Sensing	Download #10
<b>14</b> Tues 11/23		Final Review	
<b>15</b> Tues 11/30		<b>Final Exam – This is a comprehensive final; however emphasis is placed on labs 5-10 (30% of grade)</b>	

## GRADING

There are 11 lab exercises. The Introductory Lab counts! Each is worth a maximum of 10 points. At the end of the term your lowest lab score is dropped; then points are totaled for a maximum of 100 points. Remember, there are no make-up labs unless you present dated, signed medical documentation or police report/court summons.

Lab Exercise Point Total	100 points	50% of grade
Midterm Point Total	40 points	20% of grade
Final Point Total	60 points	30% of grade
	200 point	100%

**A** = 94-100, **A-** = 90-93, **B+** = 87-89, **B** = 83-86, **B-** = 80-82, **C+** = 77-79, **C** = 73-76, **C-** = 70-72, **D+** = 67-69, **D** = 63-66, **D-** = 60-62, **F** = less than 60 percent.