

**The Hong Kong University of Science & Technology**

**Division of Life Science**

**LIFS 3330**

**Marine Biology Laboratory**

*Laboratory Manual*

**Fall 2017**

## LIFS 3330 MARINE BIOLOGY LAB

Wednesday 12:00 – 15:50; Room 4160 (Lift 33; this room will be used for all tutorials and lab sessions)

Instructor: Dr Cindy LAM (envscindy@ust.hk)

Week	Date (Wednesday)	Tutorial/Laboratory Class/ Field Trip	Remarks
1	6 Sep	<ul style="list-style-type: none"> <li>Course Introduction</li> <li>Briefing of Field Trip (I)</li> </ul>	
2	13 Sep	Lab 1: Sea water properties	
3	20 Sep	<b>Field Trip (I): Mudflat &amp; Mangrove Survey</b>	<p><b>Field trip: Kei Ling Ha Lo Wai</b> (lowest tide: 0.63M at 15:00)  <b>Assembly time:</b> 12:45 pm at Sundial (near Hang Seng Bank)</p> <p>Please dress <u>appropriately</u> for the field trip. There are sharp shells and rocks at the field site. It is very important for you to wear a pair of shoes that <u>completely cover</u> your feet. Any footwear which does not <u>completely cover</u> all parts of the foot (e.g. sandals, flip-flops) is unacceptable. Any students found wearing these will <b>NOT</b> be permitted to join the field trip and will be given <u>zero</u> mark for the field trip report.</p>
4	27 Sep	<ul style="list-style-type: none"> <li>Analysis of data from Field Trip (I)</li> <li>Briefing of Field Trip (II)</li> </ul>	
5	4 Oct	<b>Field Trip (II): Boulder Shore Survey</b>	<p><b>Field trip: Boulder shore on campus</b> (lowest tide: 0.84M at 14:00)  <b>Assembly time:</b> 12:30 pm outside Hall IX (near outdoor Sportsground)</p> <p>Please dress <u>appropriately</u> for the field trip. Part of the boulder shore is wet and slippery, and there are sharp shells and rocks on the shore. It is very important for you to wear a pair of shoes that <u>completely cover</u> your feet. Any footwear which does not <u>completely cover</u> all parts of the foot (e.g. sandals, flip-flops) is unacceptable. Any students found wearing these will <b>NOT</b> be permitted to join the field trip and will be given <u>zero</u> mark for the field trip report.</p>
6	11 Oct	Analysis of data from Field Trip (II)	
7	18 Oct	Lab 2: Phytoplankton, Zooplankton, and Macro-algae	
8	25 Oct	<b>Field Trip Project Presentations</b>	<ul style="list-style-type: none"> <li>15 minutes per group</li> <li>Submission deadline of <b>TWO</b> field trip reports</li> </ul>
9	1 Nov	<ul style="list-style-type: none"> <li><b>Quiz</b></li> <li>Lab 3: Marine Invertebrates: Sponges, cnidarians, annelids</li> </ul>	Please bring along dissection kit.
10	8 Nov	Lab 4: Marine Molluscs: Bivalves and cephalopods	Please bring along dissection kit.
11	15 Nov	Lab 5: Crustaceans, Echinoderms, and Fishes	Please bring along dissection kit.
12	22 Nov	Study Break	
13	29 Nov	<b>Final Examination</b>	

### **Course Intended Learning Outcomes:**

On successful completion of this course, students are expected to be able to:

1. Appraise the diversity and form in marine organisms.
2. Explain the key concepts, principles and practices in marine biology.
3. Conduct experiments and gather reliable data (qualitative and quantitative), both in the field and the laboratory.
4. Collaborate with peers to identify marine organisms using tool books and other resources and to carry out broader literature searches.
5. Use a variety of methods to present data, including written reports and oral presentations.

### **Assessment (Total: 100%)**

- |                                   |  |
|-----------------------------------|--|
| • Lab reports (5)                 | 15%  |
| • Field trip reports (2)          | 20%  |
| • Group Project presentations (1) | 10%  |
| • Quiz (1)                        | 10%  |
| • Final exam (1)                  | 40%  |
| • Continuous assessment           | 5% (attendance, attitude of studies, etc.) |