OCES/LIFS 3330
Marine Biology Laboratory

Laboratory Manual

Fall 2019
# LIFS 3330 Marine Biology Lab

Wednesday 12:00 – 16:50; Room 4160 (Lift 33; this room will be used for all tutorials and lab sessions)

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

<table>
<thead>
<tr>
<th>Week</th>
<th>Date (Wednesday)</th>
<th>Tutorial/Laboratory Class/Field Trip</th>
<th>Remarks</th>
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</table>
| 1    | 4 Sep            | Course Introduction, Briefing of Field Trip (I) | Field trip: Kei Ling Ha Lo Wai (lowest tide: 0.7M at 14:26)  
Assembly time: 12:00 am at Sundial (near Hang Seng Bank)  
**Please dress appropriately 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 completely cover your feet. Any footwear which does not completely cover all parts of the foot (e.g. sandals, flip-flops) is unacceptable. Any students found wearing these will NOT be permitted to join the field trip and will be given zero mark for the field trip report.** |
| 2    | 11 Sep           | Field Trip (I): Mudflat & Mangrove Survey | |
| 3    | 18 Sep           | Analysis of data from Field Trip (I), Briefing of Field Trip (II) | Field trip: Boulder shore on campus (lowest tide: 0.67M at 13:00)  
Assembly time: 12:00 am outside Hall IX (near outdoor Sportsground)  
**Please dress appropriately 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 completely cover your feet. Any footwear which does not completely cover all parts of the foot (e.g. sandals, flip-flops) is unacceptable. Any students found wearing these will NOT be permitted to join the field trip and will be given zero mark for the field trip report.** |
| 4    | 25 Sep           | Field Trip (II): Boulder Shore Survey | |
| 5    | 2 Oct            | Analysis of data from Field Trip (II) | |
| 6    | 9 Oct            | Lab 1: Sea water properties | |
| 7    | 16 Oct           | Lab 2: Phytoplankton, Zooplankton, and Macro-algae | |
| 8    | 23 Oct           | Field Trip Project Presentations | **15 minutes per group**  
Submission deadline of **TWO** field trip reports |
| 9    | 30 Oct           | Quiz  
Lab 3: Marine Invertebrates: Sponges, cnidarians, annelids | Please bring along dissection kit. |
| 10   | 6 Nov            | Lab 4: Marine Molluscs: Bivalves and cephalopods | Please bring along dissection kit. |
| 11   | 13 Nov           | Lab 5: Crustaceans, Echinoderms, and Fishes | Please bring along dissection kit. |
| 12   | 20 Nov           | Study Break | |
| 13   | 27 Nov           | Final Examination | |
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%)

- Individual lab reports (5) 15%
- Group 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.)