

Course Description: This is a practical course accompanying the lecture course LIFS1901 General Biology I. It provides students with some basic concepts and some hands-on experience in biological investigation within the areas covered by LIFS1901. The emphasis is on the understanding and application of the scientific principles underlying the experimental designs and procedures. **Co-requisite:** LIFS1901 General Biology I **Credit Point:** 1 **Grading:** Pass/Fail

Intended Learning Outcomes (ILOs): On successful completion of this course, students are expected to be able to:

1. explain the scientific principles underlying the experimental procedures described in various laboratory sessions;
2. demonstrate some basic laboratory techniques for carrying out the life science experiments described in various laboratory sessions;
3. apply scientific reasoning and knowledge to analyze and interpret experimental data;
4. apply appropriate ethical principles to practical laboratory work and data interpretation.

Weekly Meeting Time & Venue: Mon 1:30-4:20 pm Room 4160 (Life Science Teaching Lab)

Course Schedule:

Week	Date	Content
1	Sep 5	Course introduction
2	Sep 12	<Holiday: No class>
3	Sep 19	Lab 1: Use of basic instruments
4	Sep 26	Lab 1: Use of basic instruments
5	Oct 3	Lab 2: Basic microscopy
6	Oct 10	Lab 2: Basic microscopy
7	Oct 17	Lab 3: Cell permeability & osmosis
8	Oct 24	Lab 3: Cell permeability & osmosis
9	Oct 31	Lab 4: Plant leaves & pigments
10	Nov 7	Lab 4: Plant leaves & pigments
11	Nov 14	Lab 5: Nucleic acid isolation
12	Nov 21	Lab 5: Nucleic acid isolation
13	Nov 28	<Reserved for make-up or extra activities>

Student Learning Activities: Reading course instructive materials, observing laboratory demonstrations, performing laboratory experiments, writing lab reports & exploring relevant materials from other resources.

Student Learning Resources: Course instructive materials provided on Canvas, textbook for LIFS1901, library and internet-based resources

Assessment Tasks: Written tests (assessing ILOs 1, 3 & 4) & lab skills tests (assessing ILO 2). A student must pass ALL assessment tasks to get a pass in this course.

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Technologists: Mr. Yau Ming WONG (bovge@ust.hk), Ms. Joy CHAN, Mr. Jason TAM

Teaching Assistants: Mr. Mingxi DENG, Miss Tiantian LI, Mr. Yonghong LIU, Mr. Minh Khoa NGO, Mr. Minh PHAM BINH, Mr. Yi QIAO, Miss Ya QIN, Mr. Zigao WANG, Miss Chenxi XIA, Mr. Yang XU