

LIFS1903 Laboratory for General Biology I Fall Semester 2016

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 *Course Grading:* Pass/Fail (P/F)

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

Time: Mondays, 1:30-4:20 pm **Venue:** Room 4160 (Life Science Teaching Laboratory) (via Lift 33)

Schedule:

Session	Date	Content
1	5 Sep	Course introduction; Lab regulations; Group arrangement; Lab coat ordering
2	12 Sep	Practical 1: Basic microscopy
3	19 Sep	Practical 2: Staining & disruption of human cells
4	26 Sep	Practical 3: Isolation of nucleic acids from human cells
5	3 Oct	Practical 4: Terrestrial plants & photosynthesis
6	17 Oct	Practical 5: Infection of bacteria by bacterial viruses (Session 1)
7	24 Oct	Practical 5: Infection of bacteria by bacterial viruses (Session 2)
8	31 Oct	Practical 5: Infection of bacteria by bacterial viruses (Session 3); Practical 6: Living things in a drop of pond water
9	7 Nov	Laboratory skills test
10	14 Nov	Laboratory skills test
11	21 Nov	Laboratory skills test
12	28 Nov	Laboratory skills test

Assessment Tasks (Weightings)

- Quizzes (5% x 6 = 30%) 1
- Practical Reports (5% x 6 = 30%) 1, 2, 3, 4
- Laboratory skills test (15%) 2
- Final examination (25%) 1, 2, 3, 4

ILOs Assessed

Instructors

Dr. Eugene HUNG (bohsc, Room 5451, x7303)

Technologists:

Mr. Simon LAU (bosimon, Room 6217, x7325), Ms. Joy CHAN, Mr. Jason TAM

Teaching Assistants:

Mr. Zhe CAO (zcaoad), Miss Etta Yunle LIU (yliuch), Miss Jianshu LOU (jlouab), Mr. Xulun SUN (xulunsun), Miss Qingqing ZHOU (qzhouab)