

## LIFS 1904 General Biology II Laboratory

### Course outline Spring 2018-19

#### 1. Instructors:

Instructor	Room	Ext.	Email
Dr. Jessica TANG	4218	x7314	bocemun@ust.hk

#### 2. Meeting time and venue

**Class Time:** Monday 14:00-17:00, (see schedule below for individual lab session dates)

**Venue:** Lab 4160 (Lift 33)

#### 3. Course Description

Credit points: 1

Prerequisite: LIFS 1901 OR level 3 or above in HKDSE 1x Biology OR a passing grade in AL/AS Biology

Corequisite: LIFS1902

Exclusions: NIL

Grading: A+ to F

#### Brief information/synopsis:

The course LIFS 1904 Laboratory for General Biology II comprises of four laboratory exercises. The aims of these exercises are three-fold: 1) to reinforce the material learnt in lectures by providing laboratory exercises; 2) to provide the students with some fundamental hands-on experience in laboratory work; and 3) to equip the students with some practical knowledge related to application of basic scientific principles.

This is a practical course accompanying the lecture course LIFS 1902. It provides students with some basic concepts and hands-on experience in biological investigation within some areas covered by LIFS 1902, including human biology, genetics and molecular biology. The emphasis is on the understanding and application of the scientific principles underlying the experiments.

#### 4. Intended Learning Outcomes (ILOs):

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

No.	ILO
1.	Explain the scientific principles underlying the experimental procedures described in individual sessions.
2.	Demonstrate basic laboratory techniques for carrying out the life science experiments described in individual sessions.
3.	Analyze and interpret experimental data based on scientific reasoning and knowledge.
4.	Abide by ethical principles in laboratory work and data interpretation.

#### 5. Assessment scheme:

Method of Assessment	Contribution to Final Grade (%)	*Learning Outcomes to be assessed *Listed on Page iii
Experimental Worksheet (Four in total, 5% per lab)	20%	(1), (3) & (4)
Laboratory Performance (4% per lab)	16%	(2)
Final Examination	64%	(1), (3) & (4)

\*Only those students, who fully attend all of the required laboratory sessions accordingly (unless you have permission from the instructor), will be considered for Grade D or above ("Pass")

6. Course schedule:

	<b>Activities</b>	<b>Date</b>
	<b>Introduction*</b> LA1, LA2, LA3	4 Feb LTA 14:00-15:00
<b>Exercise 1</b>	<b>Rat Dissection</b>	
	LA1	11 Feb
	LA2	18 Feb
	LA3	25 Feb
<b>Exercise 2</b>	<b>Forensic Study by DNA Finger Printing</b>	
	LA1	4 Mar
	LA2	11 Mar
	LA3	18 Mar
<b>Exercise 3</b>	<b>Digestion of Carbohydrate, Protein and Fat</b>	
	LA1	25 Mar
	LA2	1 Apr
	LA3	8 Apr
<b>Exercise 4</b>	<b>Genetics Study using Fruit Fly</b>	
	LA1	15 Apr
	LA2	29 Apr
	LA3	6 May
	<b>Final Examination</b> <b>(Date and Venue to be arranged by ARR)</b>	

\*All lab sessions (LA1, LA2 and LA3) attend the introduction, followed by individual lab sessions every three weeks according to the schedule.