



A3BTE002C

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Biotechnology Course (Level III)

Biotechnology Laboratory: From Classic to Frontiers (Phase II)

Instructors from Creative Education Unit, The Hong Kong Federation of Youth Groups



Application Deadline
21 Oct 2023 12:00 noon

Result Release
27 Oct 2023

Intended Learning Outcomes

Upon completion of the programme, participants should be able to:

1. elaborate the extended knowledge in biotechnology, including DNA sequencing, bioinformatics, and stem cells, etc;
2. confident in using more equipment, including stereo microscope, thermocycler, centrifuge, etc;
3. earning experience of molecular biological experiments, including gene cloning, ELISA, RNAi on *C. elegans*;
4. utilize open resources to identify the DNA sequences of specific species;
5. cultivate a sense of technology literacy by practicing biotechnology experiments and understanding their applications and limitations.

◆ Introduction

The programme consists of three phases. There are 5 sessions in Phase 2 that equip students' extended knowledge in molecular biology, genetic engineering and biotechnology. Participants will learn how to use various experimental equipment and skills through hands-on practical, including PCR, gene cloning, ELISA and RNAi on *C. elegans*. A self-learning platform will also be provided to enhance participants' related extension knowledge through updated news and journals.

This programme is organized by Creative Education Unit (CE) of the Hong Kong Federation of Youth Groups (HKFYG), which offers interactive exploratory learning platform with wide ranges of programmes for 15 years, including STEM workshops, carnivals, talent trainings, competitions and scholarships.

Phase III is tentatively scheduled as below:

Phase III: Saturdays from 2 Dec to 16 Dec 2023

Students with satisfactory performance in Phase II will be selected to advancing to Phase III. Please reserve your time. Detailed schedule is on next page.

◆ Schedule (Phase II)

Session	Date	Time	Venue
1	11 Nov	10:00 a.m. – 1:00 p.m.	Room 210, 2/F, 5W Building, Phase 1, Hong Kong Science Park, N.T. (Location)
2	11 Nov	2:00 p.m. – 5:00 p.m.	
3	18 Nov	10:00 a.m. – 1:00 p.m.	
4	18 Nov	2:00 p.m. – 5:00 p.m.	
5	25 Nov	10:00 a.m. – 1:00 p.m.	

Total 10 hours of pre/post class self-learning on online platform is required on during 6-10, 13-17, 20-24 Nov

◆ Target Participants

- Students with satisfactory performance in Phase I (A3BTE001C)
- Class size: 24

◆ Certificate

E-Certificate will be awarded to participants who have:

- attended at least 4 sessions; and
- completed all the assignments with satisfactory performance

◆ Medium of Instruction

Cantonese with English Handouts
(Supplemented with Chinese)

◆ Phase III Schedule

Phase III aim to equip students with advanced techniques in experiments, simulations, computer analysis, and research.

Students with satisfactory performance in Phase II will be selected to advancing to Phase III. Please reserve your time.

Phase III Schedule (Tentative)

Session	Date	Time	Venue
1	2 Dec	10:00 a.m. – 1:00 p.m.	Room 210, 2/F, 5W Building, Phase 1, Hong Kong Science Park, N.T. (Location)
2	9 Dec	10:00 a.m. – 1:00 p.m.	
3	16 Dec	10:00 a.m. – 1:00 p.m.	
4	16 Dec	2:00 p.m. – 5:00 p.m.	

Total 12 hours of pre/post class self-learning on online platform is required on during 27 Nov – 1 Dec, 4-8, 11-15 Dec