



Trends in Modern Biotechnology I (E3BTE001C)

Introduction

In this course, we will have an overview on the latest trends in modern biotechnology from the basic fundamental knowledge of molecular biology, recombinant DNA technology and genetic engineering. Furthermore, some new techniques in modern biotechnology (e.g. animal and plant cloning, transgenic animals) will also be discussed. Besides, hands-on experiments are designed to demonstrate the techniques in genetic engineering. To arouse students' awareness about modern biotechnology-related ethical and moral issues, topics such as application of modern biotechnology, pros and cons of stem cell therapy, etc. will be explored and discussed.

This programme is co-organised with SKH Bishop Baker Secondary School.

Remark: Trends in Modern Biotechnology II (E3BTE002C) will be organised in Jul – Aug 2022 (tentative). Graduates of E3BTE001C have priority to join E3BTE002C.

Programme Type / Level

Biotechnology Course (Level III) ([Token-required](#))

Instructor(s)

Dr CHAN Kwok Keung
(Biology teacher, SKH Bishop Baker Secondary School)

Pre-requisite

- Students with primary interest on biology, chemistry and biotechnology;
- Biology and chemistry knowledge of S3 or above level is preferred.

Target Participants

- S3-S6 HKAGE student members
- Class size: 30

Medium of Instruction

English with English Handouts

Certificate

E-Certificate will be awarded to participants who have:

- ❖ Attended **AT LEAST 5 sessions** AND
- ❖ Completed all the assessments with satisfactory performance.

Intended Learning Outcomes

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

- describe the basic knowledge of modern biotechnology and its trends nowadays, e.g. genetic engineering;
- recognise the latest techniques in modern biotechnology,
- explain the concepts of practical experiments of recombinant DNA technology,
- perform experiments of genetic engineering, e.g. bacterial transformation with plasmid DNA and forensic DNA fingerprinting;
- discuss the ethical and moral issues of modern biotechnology.

Screening

Please answer the screening questions in the online application form.

*The screening question is designed to help the applicant understands the course level and the course content. The question must be answered by the student applicant, and it can only be attempted once. The answer cannot be changed once the application is submitted. Selection is based on students' performance in answering the questions. Only students who can demonstrate motivation and knowledge of biotechnology in the screening questions can be enrolled in the programme.

Application
Deadline

1 Nov 2021, 12:00 n.n

Application Result
Release Date

12 Nov 2021

If student members withdraw from the programme after the Application Deadline, the token will be deducted.

Schedule

| Session | Date | Time | Venue* |
|---------|--------|------------------------|------------------------------|
| 1 | 11 Dec | 9:00 a.m. – 12:00 noon | Classroom 406 206 |
| 2 | 18 Dec | | Classroom 406 |
| 3 | 23 Dec | | Biology Laboratory |
| 4 | 28 Dec | | Biology Laboratory |
| 5 | 29 Dec | | Classroom 406 |
| 6 | 31 Dec | | Biology Laboratory |

*Address: SKH Bishop Baker Secondary School, 10 Fung Yau Street South, Yuen Long, N.T. ([MAP](#))

Enquiries

For enquiries, please contact us on 3940 0101 or email at programme@hkage.org.hk.