

LIFS 2070: Introduction to Biotechnology (Fall 16/17)

Lecturers: Prof Raymond W. K. Wong (Course Director) Rm 5520 (bcwkrw@ust.hk)
 Prof Karl Tsim Rm 5456 (botsim@ust.hk)
 Prof Joseph Wong Rm 5454 (botin@ust.hk)

Time & Venue: Monday 15:00 – 16:20 Rm 1104
 Friday 10:30 – 11:50 Rm 1104

Reference Books: Introduction to Biotechnology Thieman et al 2014 Pearson
 Biotechnology Fundamentals Khan, 20145 CRC Press

Course goals:

This course will provide students with a general understanding and recognition of fundamental subjects in biotechnology and is particularly aimed at students who are interested in declaring major or minor in Biotechnology.

Learning Outcomes:

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

1. Understand the basic concepts of biotechnology and how this is related to our daily life.
2. Evaluate and analyze information relevant to biotechnology issues.
3. Communicate and explain information regarding issues and importance of biotechnology to general public.
4. Recognize how biotechnology can help resolve healthcare issues and develop a sustainable society.
5. Use a global perspective to analyze issues related to life science and biotechnology.

Mid-term Assessment: 30% X 2
 Final Examination: 40%

	Date	Topic	Instructor
1	2-Sept-16 (Fri)	Introduction to biotechnology	WK Wong
2	5-Sept-16 (Mon)	The history of biotechnology	Tsim
3	9-Sept-16 (Fri)		Tsim
4	12-Sept-16 (Mon)		Molecular foundation of biotechnology
5	19-Sept-16 (Mon)	Tsim	
6	23-Sept-16 (Fri)	Biotechnology tools in research & development	Tsim
7	26-Sept-16 (Mon)	Biotechnology application - testing industries	Tsim
8	30-Sept-16 (Fri)	Midterm 1 (30%) – [7 lectures No. 1-7]	
9	3-Oct-16 (Mon)	Applications of biotechnology in industries	WK Wong
10	7-Oct-16 (Fri)	Technological approaches and achievements	J Wong

11	14-Oct-16 (Fri)	in animal, plant, and algal biotechnology	J Wong
12	17-Oct-16 (Mon)		J Wong
13	21-Oct-16 (Fri)		J Wong
14	24-Oct-16 (Mon)		J Wong
15	28-Oct-16 (Fri)		J Wong
16	31-Oct-16 (Mon)	Marine biotechnology	J Wong
17	4-Nov-16 (Fri)	Midterm 2 (30%) – [7 lectures, No. 10-16]	
18	7-Nov-16 (Mon)	Healthcare applications	WK Wong
19	11-Nov-16 (Fri)		WK Wong
20	14-Nov-16 (Mon)		WK Wong
21	18-Nov-16 (Fri)	Legal and policy issues in biotechnology	WK Wong
22	21-Nov-16 (Mon)		WK Wong
23	25-Nov-16 (Fri)	Ethical issues in biotechnology	WK Wong
24	28-Nov-16 (Mon)		WK Wong
25	to be announced	Final Exam (30%) – [8 lectures No. 9, 18-24]	

Final Examination (40%) – Date and Venue to be announced by ARRO