

**LIFS 2070: Introduction to Biotechnology (Fall 22/23)**

Lecturers:	Prof Karl Tsim (Course director) Prof Joseph Wong Prof. Yukinori Hirano	Rm 5456 (botsim@ust.hk) Rm 5454 (botin@ust.hk) Rm 5505A (yukinori@ust.hk)
Time & Venue:	Monday Wednesday	12:00 – 13:20 LTJ 12:00 – 13:20 LTJ
References:	Introduction to Biotechnology Biotechnology Fundamentals Phytocosmetics and Cosmetic Science Yahoo; Google and etc	Thieman et al 2013 Pearson Khan, 2016 CRC Press Lourith and Tsim 2021 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 analyse 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.

First Learning Assessment: 26%

Second Learning Assessment: 30%

Third Learning Assessment: 44%

	Date	Topic	Instructor
1	5-Sept-22	Introduction to biotechnology	Tsim
2	7-Sept-22	Application of biotechnology	Tsim
3	14-Sept-22	Molecular foundation of biotechnology	Tsim
4	19-Sept-22	Biotechnology tools in research & development	Tsim
5	21-Sept-22	Biotechnology tools in research & development	Tsim
6	26-Sept-22	Testing and Certification Industry and Relevant ISO Standards	Tsim
7	28-Sept-22	<b>Assessment 1 (26%) – [6 lectures, No. 1-6]</b>	Tsim
8	3-Oct-22	Technological approaches and achievements in animal, plant, and marine biotechnology	J Wong
9	15-Oct-22		J Wong
10	10-Oct-22		J Wong
11	12-Oct-22		J Wong
12	17-Oct-22		J Wong
13	19-Oct-22		J Wong
14	24-Oct-22		J Wong
15	26-Oct-22	<b>Assessment 2 (30%) – [7 lectures, No. 8-14]</b>	J Wong
16	31-Oct-22	Basic and practical knowledge/means in biotechnology	Hirano
17	2-Nov-22		Hirano
18	7-Nov-22		Hirano
19	9-Nov-22	Biotechnology in industry, environment, scientific discovery, and medical science	Hirano
20	14-Nov-22		Hirano
21	16-Nov-22		Hirano
22	21-Nov-22		Hirano
23	23-Nov-22		Hirano
24	28-Nov-22		Hirano
25	30-Nov-22	<b>Assessment 3 (44%) [9 lectures No. 16-24]</b>	Hirano

**Note: The formats adopted for conducting Assessments 1-3 may be different and are up to the preferences of the three lecturers.**