

Division of Life Science
The Hong Kong University of Science and Technology

LIFS 1930 Nature of Life Sciences

Spring semester, 2022-2023

Credits: 3

Course coordinator	Dr. Philip Lam	
Instructors	Dr. Jessica Tang	bocemun@ust.hk, x7314
	Dr. Philip Lam	ylam@ust.hk, x8714
	Dr. Ice Ko	iceko@ust.hk, x8923

Course Goals

This is an innovative blended-learning course that comprises both independent e-learning and face-to-face tutorial components. The course covers general and up-to-date topics such as conservation biology, biodiversity, animal forms and functions, metabolism, cell signaling, recombinant DNA, animal and plant biotechnology, and bio-ethics.

Intended Learning Outcomes

At the end of this course, students will be able to:

- Acquire fundamental knowledge through computer-assisted learning in the areas of biochemistry, biology, and biotechnology.
- Cultivate self-paced practice, feedback, and monitoring of self-progress.
- Inaugurate global connection.
- Utilize in-class game-based / case study activities to reinforce online learning.
- Develop higher-order skills in order to make critical and rational judgments over societal concerns in life sciences.
- Seek and share biological knowledge, independently and in collaboration with others.

Assessment Scheme

Components	Percentage
Online quiz	10
Participation mark#	10
Written assignment *	20
Final examination 1 hour	60

Note: #Two or less no- shows are allowed after add/drop period.

#5% deduction will be made if more than 2 no-shows in class after add/drop, active participation is required.

*Each student is required to write a 400-word essay on one of the assigned topics. Topics are related to the content of the face-to-face tutorials. The assignment topics will be announced on April 27th, 2023.

Class Outline

Tutorials (Each student is assigned to attend one of the following sessions arranged by ARO, please check your course registration information):

LIFS1930 (T1) Thursday 09:00-10:20; Rm 5619 (Lift 31/32)

LIFS1930 (T2) Thursday 10:30-11:50; Rm 5619 (Lift 31/32)

Date	Topic	Instructor
Feb 9	Transcription and Translation	Tang
Feb 16	Stem Cells	Tang
Feb 23	Recombinant DNA	Tang
Mar 2	Animal Biotechnology	Tang
Mar 9	Plant Biotechnology	Tang
Mar 16	Animal Form and Function	Lam
Mar 23	Cell Signaling	Lam
Mar 30	Metabolism and Nutrition	Lam
Apr 6	Mid-term Break (No Class)	
Apr 13	Evolution	Ko
Apr 20	Ecology	Ko
Apr 27	Conservation Biology	Ko
May 4	Bio-ethics and Public Acceptance	Ko