

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

LIFS 1930 Nature of Life Sciences

Spring semester, 2019-2020

Credits: 3

Exclusion: LIFS 2030 (prior to 2014-15)

Course coordinator	Dr. Philip Lam	
Instructors	Dr. Jessica Tang	bocemun@ust.hk, x7314
	Dr. Philip Lam	ylam@ust.hk, x8714
	Dr. Melody Leung	bomleung@ust.hk, x8634

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 and animal forms and functions in the field of Biology, metabolism and cell signaling in Biochemistry, and recombinant DNA, animal and plant biotechnology and bioethics in Biotechnology.

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.
- To cultivate self-paced practice, feedbacks and monitoring of self-progress.
- To be able to inaugurate global connection.
- To be able to utilize in-class game-based / case study activities to reinforce on-line learning.
- To develop higher order skills in order to make critical and rational judgments over societal concerns in life sciences.
- To seek and share biological knowledge, independently and in collaboration with others.

Assessment scheme

Components	Percentage
On line quiz	30
Written assignment *	70

*Each student is required to write a 900-word essay on one of the assigned topics. Topics are related to the content of the face-to-face tutorial. The assignment topics will be announced on 29 Apr 2019.

Class outline

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

T2 Wednesday 13:30-14:50 Canvas Zoom meeting

T1 Wednesday 15:00-16:20 Canvas Zoom meeting

Date	Topic	Instructor
Feb 26	Biodiversity and Evolution	Tang
Mar 4	Ecology	Tang
Mar 11	Conservation Biology	Tang
Mar 18	Animal Form and Function	Lam
Mar 25	Cell Signaling	Lam
Apr 1	Metabolism and Nutrition	Lam
Apr 8	Transcription and Translation	Leung
Apr 15	Stem Cells	Leung
Apr 22	Recombinant DNA	Leung
Apr 29	Animal Biotechnology	Leung
May 6	Plant Biotechnology	Leung
May 13	Bio-ethics and Public Acceptance	Leung