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

LIFS 1930 Nature of Life Sciences
Fall semester, 2021-2022
Credits: 3
Exclusion: LIFS 2030 (prior to 2014-15)

Course coordinator	Dr. Melody Leung	
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	20
Written assignment *	20
Final examination 1.5 hours	60

5% deduction will be made if more than 2 no- shows in class after add/drop

*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 tutorial. The assignment topics will be announced on 15 Nov 2021.

Class outline

Important note: Due to pedagogical reasons, this blended-learning course will NOT be delivered in mixed-mode. Students who cannot attend the class in person, i.e., NIHK students, should take the course in the next offering.

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

T1 Monday 16:30-17:50 Rm5620

T2 Monday 10:30-11:50 Rm5620

Date	**Topic**	**Instructor**
Sep 6	Biodiversity and Evolution	Tang
Sep 13	Ecology	Tang
Sep 20	Conservation Biology	Tang
Sep 27	Animal Form and Function	Lam
Oct 4	Cell Signaling	Lam
Oct 11	Metabolism and Nutrition	Lam
Oct 18	Transcription and Translation	Leung
Oct 25	Stem Cells	Leung
Nov 1	Recombinant DNA	Leung
Nov 8	Animal Biotechnology	Leung
Nov 15	Plant Biotechnology	Leung
Nov 22	Bio-ethics and Public Acceptance	Leung