

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

**LIFS 1930 Nature of Life Sciences**

Fall semester, 2022-2023

Credits: 3

Exclusion: LIFS 2030 (prior to 2014-15)

Instructors	Dr. Jessica TANG (course coordinator)	bocemun@ust.hk, Rm5450 x7314
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**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
Online quiz	10
Participation mark#	10
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, 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 tutorial. The assignment topics will be announced on 16 Nov 2022

### Class outline

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

T1 Wednesday                      15:00-16:20    Rm4582  
T2 Wednesday                      13:30-14:50    Rm4582

Date	Topic	Instructor
Sep 7	Transcription and Translation	Tang
Sep 14	Stem Cells	Tang
Sep 21	Recombinant DNA	Tang
Sep 28	Animal Biotechnology	Tang
Oct 5	Plant Biotechnology	Tang
Oct 12	Animal Form and Function	Lam
Oct 19	Cell Signaling	Lam
Oct 26	Metabolism and Nutrition	Lam
Nov 2	Biodiversity and Evolution	Ko
Nov 9	Ecology	Ko
Nov 16	Conservation Biology	Ko
Nov 23	Bioethics and Public Acceptance	Ko