

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

**LIFS 1930 Nature of Life Sciences**

Spring semester, 2018-2019

Credits: 3

Exclusion: LIFS 2030 (prior to 2014-15)

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

\*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 30th 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 Tuesday 9:00-10:20 Rm5620

T1 Tuesday 10:30-11:50 Rm5620

Date	Topic	Instructor
12 Feb	Biodiversity and Evolution	Tang
19 Feb	Ecology	Tang
26 Feb	Conservation Biology	Tang
5 Mar	Animal Form and Function	Lam
12 Mar	Cell Signaling	Lam
19 Mar	Metabolism and Nutrition	Lam
26 Mar	Transcription and Translation	Leung
2 Apr	Stem Cells	Leung
9 Apr	Recombinant DNA	Leung
16 Apr	Animal Biotechnology	Leung
30 Apr	Plant Biotechnology	Leung
7 May	Bio-ethics and Public Acceptance	Leung