

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

**LIFS 1930 Nature of Life Sciences**

Fall semester, 2018-2019

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

\*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 Nov 19<sup>th</sup> 2018.

### Class outline

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

T1 Tuesday                    16.30-17.50    Rm4582

T2 Tuesday                    12.00-13.20    Rm5620

Date	Topic	Instructor
Sep 4	Biodiversity and Evolution	Tang
Sep 11	Ecology	Tang
Sep 18	Conservation Biology	Tang
Oct 2	Animal Form and Function	Lam
Oct 9	Cell Signaling	Lam
Oct 16	Metabolism and Nutrition	Lam
Oct 23	Transcription and Translation	Leung
Oct 30	Stem Cells	Leung
Nov 6	Recombinant DNA	Leung
Nov 13	Animal Biotechnology	Leung
Nov 20	Plant Biotechnology	Leung
Nov 27	Bio-ethics and Public Acceptance	Leung