LIFS1901 **General Biology I** **Spring 2017**

Course Description: This course targets science students not having sufficient biological knowledge for the entry to a life science program of a 4-year undergraduate curriculum. It provides students with a general overview of fundamental biology: basic characteristics of life (the chemistry of life, cells), vital life processes (respiration, photosynthesis), and essential concepts of genetics, evolution, and ecology. **Credit Points:** 3

Intended Learning Outcomes (ILOs): On successful completion of this course, students are expected to be able to:

1. describe the basic characteristics of life and its composite units
2. describe the interactions of organisms with each other and with the physical environment, taking particular account of energy source, the survival of individuals and the survival of a group.
3. apply the basic knowledge of the characteristics of life and the interactions of organisms to explain essential life processes.
4. illustrate how life science provides an investigative approach to interpreting the natural world.

Weekly Meeting Time & Venue: Mon 10:30-11:50 LT-D
Wed 10:30-11:50 LT-D

Course Schedule:

Week	***Dates***	***Topics***
1	Feb 1	Course Introduction, Unique Functions of Living Things
2	Feb 6, 8	Chemical Nature of Living Things
3	Feb 13,15	Spatial Definition of an Organism
4	Feb 20, 22	Self Material Production & Energy Acquisition by Living Things
5	Feb 27, Mar 1	Determination of Form & Function of an Organism
6	Mar 6, 8	Making of a New Life
7	Mar 13 Mar 15	Making of a New Life (cont) Mid-Term Exam
8	Mar 20, 22	Differences among Living Individuals
9	Mar 27, 29	Variety of Living Things on Earth
10	Apr 3, 5	Cause of Diversity of Life Forms on Earth
11	Apr 10, 19	Interactions within Living Systems
12	Apr 24, 26	Biology-Related Topics in Media
13	May 8	Biology-Related Topics in Media

Student Learning Activities: Attending lectures, joining class discussions, paying attention to biology-related information in daily life

Student Learning Resources:
Lecture notes, lecture videos, any textbooks for university/college-level introductory biology or high-school level biology as references (example: Inquiry into Life, Mader & Windelspecht, McGraw Hill), biology-related resources in HKUST library and public media

Assessment Scheme:

- **Mid-Term Exam (30%)**, assessing ILO 1
- **Individual Project (10%)**, assessing ILO 4
- **Final Exam (60%)**, assessing ILOs 1, 2 & 3

Instructor: Dr. Eugene S. C. HUNG (bohsc@ust.hk, x7303, Room 5451)