LIFS 1020 – Biology of Human Health

School:	**School of Science**
Subject Area:	**Life Science**
Course Credit:	**3**
Instructor:	**LAM Yeung / TANG Jessica Ce Mun**
Pre-requisite/co-requisite:	**Nil**

Notes:

- The syllabi provided here is for reference only and may be subject to changes and adjustments as determined by the course instructors.

Biology of Human Health

CORE 1130 (Summer 2023)

Instructors:

Dr. Jessica Tang (bocemun@ust.hk)
Dr. Philip Lam (ylam@ust.hk)

Meeting Time and Venue

Time: 2:00 pm – 5:50 pm (Mon, Wed, Fri)

Venue: LTG

Course Description:

Credit Points: 3
Pre-requisite: a passing letter grade in CORE 1401 OR CORE 1402 OR CORE 1403 OR CORE 1404 OR LANG 1002 (prior to 2022-23)
Exclusion: Level 3 or above in HKDSE 1/2x Biology or in HKDSE 1x Biology, LIFS 1901, LIFS 1902

This course aims to provide students with contemporary knowledge of biological, environmental, and societal factors that are related to the health and well-being of human individuals. The health of humans, the environment, as well as the society, are interrelated. By corollary, it is essential to fully understand human health and diseases in terms of biological disparities. In recent years, there has been a growing interest in integrating human health, environment, and society between experts from different fields. The objective of the course is to address the correlations between the three corresponding areas under a stimulating, interdisciplinary nexus.

Intended Learning Outcomes:

By the end of this course, the students are expected to be able to:

1. Explain fundamental principles and interplayed relationships between biology, the environment, and society in everyday life.
2. Describe how diseases can affect human health and how they may be treated using recent technologies.
3. Describe how a healthy lifestyle can be maintained and the consequences of biological disparities in relation to human health.
4. Describe the effects of environmental and societal factors on human health.
5. Execute effective oral communication and written scientific language of biology of human health.

Assessment Scheme:

(a) Final Exam: All MC questions
(b) Written assignment: Group Presentation Script
(c) In-class quizzes: All MC questions
(d) In-class participation
(e) Group presentation#
(f) Peer evaluation (it will impact individual student's presentation score)

#Presentation topics will be provided later.

Percentage of exam and coursework

Assessment	Assessing Course ILOs
35% by Final Exam	(1), (2), (3), (4)
10% by Quizzes	(1), (2), (3), (4)
10% by Participation*	(1), (2), (3), (4)
30% by Group Presentation#	(1), (2), (3), (4), (5)
15% by Group Presentation Script	(1), (2), (3), (4), (5)

*Students are required to:

Participate in iPRS questions
Participate in discussion
Miss NO more than 2 classes in the course

#5% out of 30% comes from peer evaluation (iPeer). Students are required to complete the iPeer between July 12 to 14.

Student Learning Resources:

Recommended Reading:

Human Health: Biology, Environment, and Society (2009), McGraw Hill.
Mulvihill ML, Zelman M, Holdaway P, Tompary E, and Raymond J (2006) *Human Diseases*. 6th

Teaching and Learning Activities:

Students have to attend lectures that are assisted by video presentations. They also need to work on an individual short essay on a selected topic and a face-to-face group presentation.

Course Schedule

CORE 1130 (2023 Summer Semester)

Date	Topic	Instructor
June 19	Biological Organization of the Human Body System – From Cells to Organisms	Lam
June 21	The Maintenance of Life I - Needed or Unneeded (*e.g. Characteristics of life*)	Lam
June 23	The Maintenance of Life II - Needed or Unneeded (*e.g. Carbohydrates & Lipids*)	Lam
June 26	The Maintenance of Life III - Needed or Unneeded (*e.g. Proteins*)	Lam
June 28	Environmental Health - Toxic versus non-toxic & Hot versus Cold (*e.g. Air/Land/Water Pollution & Global Warming*)	Lam
June 30	The Foreigners - To Live or to Die (*e.g. Bacterial Infections*)	Tang
July 3	The Busy Brain - To Think and to Sense (*e.g. stress, depression; Alzheimer's diseases, etc.*)	Tang
July 5	The Crazy Cell - To Divide or to Stop (*e.g. Cancers*)	Tang
July 7	Societal Health - Aged versus Young, Fit versus Unfit *(e.g. Stress, age-related problems in society)*	Tang
July 10	Group Presentation	Lam & Tang
July 12	Group Presentation	Lam & Tang
July 14	**Final Exam (scope: June 19 to July 12)**	Lam & Tang