

## **LIFS 1020 – Biology of Human Health**

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

### **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**

### **LIFS 1020 (Summer 2026)**

#### **Instructors:**

Dr. Jessica Tang ([bocemun@ust.hk](mailto:bocemun@ust.hk))

Dr. Philip Lam ([ylam@ust.hk](mailto:ylam@ust.hk))

#### **Meeting Time and Venue**

Time: 9:30 am – 12:50 pm (Mon, Wed, Fri)

Venue: Rm 2306 (Lift 17/18)

#### **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 communication using scientific language of biology.

### 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.

### Mapping of Course ILOs to Assessment Tasks

<u>Assessment</u>	<u>Assessing Course ILOs</u>
40% by Final Exam	(1), (2), (3), (4)
15% by Quizzes	(1), (2), (3), (4)
15% by Participation*	(1), (2), (3), (4), (5)
30% by Infographic	(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

### Student Learning Resources:

Recommended Reading:

Human Health: Biology, Environment, and Society (2009), McGraw Hill.

Mulvihill ML, Zelman M, Holdaway P, Tomparry 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 AI Policy

Generative AI tools may be used to assign student's learning, more details will be given in class.

## Rubric for Infographic

Criteria 20% (marks in square brackets)	Excellent	Very good	Good	Poor
<b>Title [2]</b>	The title is creative, attention-grabbing, and effectively captures the essence of the document.	The title is clear and provides a general idea of the document's content.	The title is somewhat relevant but could be improved to provide a clearer understanding of the document's purpose.	The title is vague or does not accurately reflect the content of the document.
<b>Relevance [5]</b>	The document is highly relevant and covers the topic comprehensively, addressing all key aspects.	The document is relevant and provides a satisfactory level of information, but some important aspects may be missing or insufficiently covered.	The document partially addresses the topic but lacks depth and fails to provide a comprehensive understanding.	The document lacks relevance to the topic or does not address the intended subject matter.
<b>Analysis of data (use of graphs, tables etc.) [5]</b>	The analysis of data is clear, well-presented, and effectively supported by relevant graphs, tables, or other visual aids.	The analysis of data is present, but it could be more thorough, comprehensive, or effectively supported by relevant visual aids.	The analysis of data is minimal or lacks clarity, making it difficult to understand the conclusions drawn.	There is no analysis of data, or the analysis is incorrect, incomplete, or poorly presented.
<b>Overall readability and aesthetics (i.e., does it look good) [5]</b>	The document is well-organized, with minimal spelling or grammatical errors, and visually appealing elements are present.	The document is reasonably organized, with few spelling or grammatical errors, but some improvements could be made to enhance readability and aesthetics.	The document is somewhat organized, but spelling or grammatical errors are present, affecting readability, and visuals are minimal or poorly executed.	The document is poorly organized, contains numerous spelling or grammatical errors, and lacks visual appeal.
<b>References [3]</b>	References are relevant and credible, providing a solid foundation for the document's content.	References are provided but could be more extensive, or some of the sources may be less credible.	Few references are provided, but they lack credibility or relevance.	No references are provided, or the references are unreliable or irrelevant.

### Final Grade Descriptors:

<b>Grades</b>	<b>Short Description</b>	<b>Elaboration on subject grading description</b>
<b>A</b>	<b>Excellent Performance</b>	<b>Demonstrates a comprehensive grasp of subject matter and critical thinking.</b>
<b>B</b>	<b>Good Performance</b>	<b>Shows good knowledge and understanding of the main subject matter, and the ability to analyze and evaluate issues. Displays high motivation to learn.</b>
<b>C</b>	<b>Satisfactory Performance</b>	<b>Possesses adequate knowledge of core subject matter, competence in dealing with familiar problems, and some capacity for critical thinking. Shows persistence and effort to achieve broadly defined learning goals.</b>
<b>D</b>	<b>Marginal Pass</b>	<b>Has threshold knowledge of core subject matter.</b>
<b>F</b>	<b>Fail</b>	<b>Demonstrates insufficient understanding of the subject matter. Shows limited ability to think critically and exhibits minimal effort towards achieving learning goals. Does not meet the threshold requirements for development in the discipline.</b>

### Academic Integrity

Students are expected to adhere to the university's academic integrity policy. Students are expected to uphold HKUST's Academic Honor Code and to maintain the highest standards of academic integrity. The University has zero tolerance of academic misconduct. Please refer to [Academic Integrity | HKUST – Academic Registry](#) for the University's definition of plagiarism and ways to avoid cheating and plagiarism.

## Course Schedule

LIFS 1020 (2026 Summer Semester)

<b>Date</b>	<b>Topic</b>	<b>Instructor</b>
June 15	Biological Organization of the Human Body System – From Cells to Organisms	Lam
June 17	The Maintenance of Life I - Needed or Unneeded ( <i>e.g. Characteristics of life</i> )	Lam
June 19	Holiday – No Class	
June 22	The Maintenance of Life II - Needed or Unneeded ( <i>e.g. Carbohydrates &amp; Lipids</i> )	Lam
June 24	The Maintenance of Life III - Needed or Unneeded ( <i>e.g. Proteins</i> )	Lam
June 26	Environmental Health - Toxic versus non-toxic & Hot versus Cold ( <i>e.g. Air/Land/Water Pollution &amp; Global Warming</i> )	Lam
June 29	The Foreigners - To Live or to Die ( <i>e.g. Bacterial Infections</i> )	Tang
July 1	Holiday – No Class	
Jul 3	The Busy Brain - To Think and to Sense ( <i>e.g. stress, depression; Alzheimer's diseases, etc.</i> )	Tang
July 6	The Crazy Cell - To Divide or to Stop ( <i>e.g. Cancers</i> )	Tang
July 8	Societal Health - Aged versus Young, Fit versus Unfit ( <i>e.g. Stress, age-related problems in society</i> )	Tang
<b>July 10</b>	<b>Final Exam (scope: June 15 to July 8)</b>	Lam & Tang