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L

OFFICE HOURS

students to the basic components and processes underlying human life. We will discuss how diseases arise when these processes are disturbed, and how drugs work to combat disease. Additionally, students will be introduced to scientific method, experimental design and critical examination of scientific results. By the end of the course, students will have sufficient knowledge to understand and analyze health science publications from the mainstream media

TEXTBOOK:

Since the course material is compiled from diverse sources, including current stories in the news, there is no course textbook. Links to select source material (papers) will be provided on-line in the CourseSpaces site, and will serve as an additional resource. You will need your UVic NetLink ID and password to access this information.

LECTURE NOTES:

Notes will generally be made available on the CourseSpaces site prior to lectures. Notes are arranged by topic, and a single topic may span multiple lectures. Lecture notes are not complete , and students will be responsible for all materials covered in the lectures.

i>CLICKERS

i>clickers will be used during lectures, starting the second week of class. Students are expected to have a registered i>clicker with them at every lecture. I>clickers are an electronic polling system that uses clickers, or ÒremotesÓ. Students submit responses to multiplechoice questions, and a base station captures the responses. Students can acquire i>clickers from the UVic Bookstore. i>clickers can be activated and updated through the student services section in My page.

More information can be found at this link:

<https://www.uvic.ca/systems/services/learningteaching/iclicker/index.php>

COURSE CONTENT

<u>Topic</u>	<u>Description</u>
1. Introduction	What is biochemistry?
2. Biomolecules	Overview of the major building blocks within cells, their interactions via chemical bonds, and the influence of water.
3. Scientific Method	How scientists approach a problem, and some of the common mistakes made in scientific research.
4. Metabolism	How humans break down molecules to acquire energy and build new molecules; introduction to diseases associated with metabolism.
5. Microbiology and Pathogenesis	Overview of types of micro-organisms and select examples of their roles in health and disease.
6. Cell Biology	Important features and behaviours of cells; stem cells and therapeutic applications.
7. Gene Regulation	Introduction to gene expression and its regulation, including epigenetics; genetic mutations underlying select diseases; genome editing.
8. Cancer Biology	Overview of cellular defects leading to cancer and current treatments.
9. Immunology and disease	

ASSESSMENT OF STUDENT PERFORMANCE

(1) Techniques to be used:

Grading of group projects, i>clicker participation, multiple choice and short answer questions on exams based on material presented in the course, and assignment of a numerical mark to each question. Exams are based on material covered in lectures (slides, board, discussions) and information posted on CourseSpaces.

(2) Evaluation and weighting:

• Midterm I	(Jan.29)	25%
• Midterm 2	(March 4)	25%
• Group Projects (x 2)	(TBA)	10% (5% each)
• i>clicker participation		4%*
• Final exam	(Set by Registrar)	36%

*i>clicker score:based on % of questions answered in class:

-4%:	!80%
-3%:	70-79%
-2%:	60-69%
-1%:	50-59%
-0%:	<50%

