BIOLOGY 2030: Introductory Human Physiology
Proposed 2025 COURSE OUTLINE

INSTRUCTOR: Dr. Robert J. Omeljaniuk, CB-4013.

LABORATORY COORDINATOR: Mr. Mike Moore, CB 3011.

TEXTBOOK: Silverthorn, D.U. Human Physiology – An Integrated Approach (8th ed.). Pearson. 2019. 837 pp. ISBN 13: 978-0-13-460519-7.

($84.47, Paperback; $176.84, Looseleaf; @ Amazon.ca).

STUDENT WORKBOOK (if available). If available, bundled with textbook free of charge! A good resource for self-study.

LABORATORY MANUAL: Lab manuals for physiology accompany the textbook in the bookstore or will be devolved electronically by the Lab Director.

PROPOSED CURRICULUM: To be promulgated.

LABORATORY EXERCISES: Student attendance and active participation in laboratories is mandatory; students who miss their assigned lab period must reschedule their exercise with Mr. Moore. Every reasonable attempt will be made to accommodate student requests.

TENTATIVE LAB SCHEDULE (To be confirmed directly to students by Lab Director):

1. Neurophysiology.
2. Cardio-respiratory physiology.
3. Renal physiology.
4. Blood.

COURSE MARKING OUTLINE

1.	Term Test 01. 27 Feb 2025, in class.	35% of Final Mark
2.	Lab Assignments Exercises.	40% of Final Mark
3.	Term Test 02. 01 Apr 2025, in class.	25% of Final Mark.

Note: Students who miss the term test as a consequence of illness, bereavement, or some other factor beyond their control must petition the Course Instructor to allocate the value of the midterm test to the final term test which will assume 100% of the Final Mark. Petitions are to be made in writing under original signature (e-mails are not acceptable), substantiated, and signed and received no later than one calendar week following the term test; the Instructor will advise students subsequently on their requests. **Students who miss the midterm test, and do not formally request consideration in a timely manner will receive a mark of zero (0**).

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BIOLOGY 2030: Introductory Human Physiology Proposed Curriculum:

1. Introductory Reading Assignment. Chapters 1 to 3, inclusive.

Students should have a working knowledge of this material. The purpose of this assignment is to ensure that all students have a common frame of reference in order to support their progression in the course. Questions will not be asked directly on this material.

PROPOSED LECTURE TOPICS AND REFERENCE MATERIAL

SECTION I-NEUROPHYSIOLOGY

Textbook References:

Chapter 9. The central nervous system.
Chapter 8. Neurons: cellular and network properties.
Chapter 10. Sensory physiology.
Chapter 11. Efferent division: autonomic and somatic motor control.

SECTION II-MUSCLE PHYSIOLOGY

Textbook References:

Chapter 12: Muscles.
Chapter 13. Integrative physiology I: Control of body movement.

SECTION III. CARDIOVASCULAR PHYSIOLOGY

Textbook References:

Chapter 14: Cardiovascular physiology.
Chapter 15: Blood flow and the control of blood pressure.

SECTION IV-RESPIRATION.

Textbook References:

Chapter 17: The mechanics of breathing.
Chapter 18: Gas exchange and transport.

SECTION V-EXCRETION AND OSMOREGULATION.

Textbook References:

Chapter 19: The kidneys.
Chapter 20: Integrative physiology II: Fluid and electrolyte balance.

NOTE: The textbook should be read carefully in order to supplement and reinforce lecture material.