

BIOLOGY 2035: Human Physiology Survey
Proposed 2022 COURSE OUTLINE
(In light of the current unstable conditions,
this course outline may be amended at any time.)

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

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

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

PROPOSED CURRICULUM: To be promulgated.

IMPORTANT NOTICE REGARDING LECTURES:

At this time, lectures must be offered online, at least until 24 Jan 2022; there is presently no intel on what the situation will be thereafter. It is very likely that lectures, and/or term tests, will be offered online throughout the term. ZOOM meetings have been organized and you may join the meetings if you are formally registered in this course.

COURSE MARKING OUTLINE

1. Term Test 01. **17 Feb 2022.** 50 % of Final Mark

READING ASSIGNMENT: Chapter 7. Introduction to the endocrine system.
This material is examinable on Term Test 01

Students who miss the first Term Test for a valid, and documented reason may elect to have the second Term Test assume 100% of their final mark. **The election must be requested in writing with substantiation to the instructor.**

2. Term Test 02. **31 Mar 2022.** 50 % of Final Mark

READING ASSIGNMENT: Chapter 26. Reproduction and development.
This material is examinable on Term Test 02.

These are multiple choice (Scantron) tests which requires the use of pencil and eraser. Students who miss the midterm 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 any term test, and do not formally request consideration in a timely manner will receive a mark of zero (0).**

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BIOLOGY 2035: Human Physiology Survey 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 lectures for this course are under revision in order to accommodate the order of topics covered in the textbook. These revisions are intended to attempt to coordinate lecture slides in the order they appear in the textbook in order to facilitate student study. Consequently, the textbook should be read carefully in order to supplement and reinforce lecture material. Nonetheless, there may invariably occur some discontinuities in presentation; your cooperation is greatly appreciated.