

ZOOLOGY 261 – Human Physiology I

Tentative Course Outline and Schedule for directed Study.

Pre-requisites: Biology 131 and 133.

Note: Credit for Zoology 261 and Zoology 169 will not be allowed

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Text: Vander's Human Physiology: The mechanisms of Body Function

West Publication Co. 10th Ed. By Widmaier, Raff, and Strang

(You are also welcome to use Human Physiology: from cells to systems

by Laura Lee Sherwood 6th ed.)

This introductory physiology class will cover the nervous and muscular systems, as well as the endocrine and reproductive systems.

Learning Objectives:

- 1. Students will be able to discuss the anatomy and physiology of the basic human systems including the nervous, muscular, endocrine, and reproductive systems.
- 2. Students will learn laboratory techniques essential to research in physiology.
- 3. Students will collaborate with peers to design and carry out a research and be able to present this in written and oral formats

Mark Distribution: 2 Midterm Exams (in class) 40%

5 Assignments 20% Final Exam 40% (Scheduled by registrar)

This course will be a directed study and will entail detailed study of the assigned chapters, followed by one-on-one tutorial time to review concepts and questions. There will also be on-line physiology labs to be performed, with associated lab reports and assignments.

Topic	Text Chapters
Introduction to Zoology 261 Homeostasis	1
Cell Physiology	3, 4
The Cell Membrane Potential The action potential / synapses	6
The Muscular system Somatic sensory system	9/10
Skeletal and Smooth muscle	8
The Central Nervous system Midterm I	8
Autonomic nervous system Central nervous system - Reflexes	7
General Senses – Receptors	7
Special Senses – Ear / Eye / Pain	7
Midterm II Special Senses	7
The endocrine system Central – tropic hormones	11
The endocrine system Peripheral glands	11
Reproduction - Male Reproduction - Female Final Exam	17 17

Laboratory Schedule

These labs will be completed on-line. Lab topics will include: the cell membrane, the nervous system, muscle system, endocrine system, and the senses.

The lab portion of this course will consist of 3 lab assignments and 2 lab reports worth 4% each.

Laboratory Exercise

Lab 1 - Osmosis and Diffusion

Lab 2 - The Nerve and Electrophysiology

Tutorial 2 - Reflexes

Lab 3 – The General Senses

Lab 4 – The Special senses

Lab 5 - Mechanical Properties of Skeletal Muscle

Tutorial - Physiological Properties of Visceral Smooth Muscle

Lab 6 - Endocrine Function

Tutorial and Review

Grading Scheme

A+	97-100%		C+	67-69%	
A	93-96%	Excellent	C	63-66%	Satisfactory
A-	89-93%		C-	60-62%	
B+	83-89%		D+	54-59%	
В	77-82%	Good	D	50-53%	Minimal Pass
B-	70-76%		F	Below 50%	Fail

It is the responsibility of all students to become familiar with and adhere to academic policies as stated in the Student Handbook and Academic Calendar. Personal information, that is information about an individual that may be used to identify that individual, may be collected as a requirement as part of taking this class. Any information collected will only be used and disclosed for the purpose for which the collection was intended. For further information contact the Privacy Compliance Officer at privacy @ambrose.edu.

Academic dishonesty is taken seriously at Ambrose University College as it undermines our academic standards and affects the integrity of each member of our learning community. Any attempt to obtain credit for academic work through fraudulent, deceptive, or dishonest means is academic dishonesty. Plagiarism involves presenting someone else's ideas, words, or work as one's own. Plagiarism is fraud and theft, but plagiarism can also occur by accident when a student fails or forgets to give credit to another person's ideas or words. Plagiarism and cheating can result in a failing grade for an assignment, for the course, or immediate dismissal from Ambrose. Students are expected to be familiar with the policy statements in the current academic calendar and the student handbook that deal with plagiarism, cheating, and the penalties and procedures for dealing with these matters. All cases of academic dishonesty are reported to the Academic Dean and become part of the student's permanent record.

We are committed to fostering personal integrity and will not overlook breaches of integrity such as plagiarism and cheating. Plagiarism and cheating can result in a failing grade for an assignment, for the course, or immediate dismissal from the university college. Students are expected to be familiar with the policies in the current Academic Calendar and the Student Handbook that deal with plagiarism, cheating, and the penalties and procedures for dealing with these matters. All cases of academic dishonesty are reported to the Academic Dean.