

BIOL 206 – Human Physiology

Course Description

An introduction to the essential functions of the human body. How tissues and organs operate and work together provides an understanding of how the body gets, distributes, and utilizes nutrients, moves, eliminates waste, and communicates between tissues and organs. The laboratory introduces basic physiological techniques in an investigative setting. Lectures and laboratories.

Course Objectives

Upon successful completion of this course, students will be able to:

- Explain the basic features of how cells communicate with other cells.
- Explain how organ systems (endocrine, nervous, muscular, cardiovascular, respiratory, renal, digestive, and reproductive) work independently and how they are regulated.
- Explain homeostasis and how the organ systems integrate their functions to maintain homeostasis.
- Understand how a physiological study is planned, conducted, statistically analyzed, and interpreted.
- Develop a greater appreciation for God's intricate design of the human body and the delicate array of interactions necessary for the maintenance of life.

Required Textbook and Resources

Human Physiology: An Integrated Approach, 8th ed.; Dee Unglaub Silverthorn (Pearson); ISBN-13: 9780134605197

Course Assessments

Textbook Reading Assignments

To perform well on quizzes and assignments, and to participate fully in group discussions, it will be necessary to keep up with reading assignments! You are responsible for the material that is presented in the assigned sections of the textbook. Assignments will be posted on Moodle.

Quizzes

Weekly quizzes will be administered on Moodle. These quizzes are intended to motivate you to keep up with the course material and assess your understanding.

Tests

Four tests will be given. Students will be responsible for the assigned reading from the textbook, material from lectures, assignments, and biological concepts reinforced in the lab section of the course.

Discussions

See the Course Discussion/Participation section below for more detail on these assessments.

Final Exam

The final exam will be a remotely proctored, cumulative test in which you will demonstrate your knowledge of the course material.

Laboratory

The laboratory portion of the course will utilize demonstration videos showing laboratory procedures during which physiological data was acquired. Students will analyze this data, complete calculations, and draw conclusions. Your previous laboratory grade can transfer to this course. The laboratory portion of the course is worth 20% of your final grade.

Grade Computation

Following is how grades will be calculated.

Assessment	Grade	Assessment	Grade
Assignments	10%	Discussions	10%
Quizzes	20%	Final Exam	20%
Tests	20%	Laboratory	20%
Total	100%		

Grading Scale

Letter Grade	Range	Letter Grade	Range
A	93-100%	C	73-76%
A-	90-92%	C-	70-72%

Letter Grade	Range	Letter Grade	Range
B+	87-89%	D+	67-69%
B	83-86%	D	63-66%
B-	80-82%	D-	60-62%
C+	77-79%	F	0-59%

Time Management and Late Assignments

Deadlines are an unavoidable part of being a professional and this course is no exception. Avoid any inclination to procrastinate. To encourage you to stay on schedule, due dates have been established for each assignment; **20% of the total points will be deducted for assignments received 1-6 days late; assignments received more than 1 week late will receive 0 points.**

Course/Discussion Participation

Active participation is a must in this course. Each week one or more key discussion questions, activities, debates, etc. will be posted. Generally, you will be required to respond to the main discussion and then also make comments (a minimum of 2) on the responses of others in the course. *Please note that the quantity of responses is not as important as the quality of the responses.*

A running dialog about course topics will be maintained via the website discussion forums. It is expected that you will fully participate in the online discussions. This means posting your own thoughts about the weekly topics, commenting on others' ideas, and responding to questions about your own postings. Class participation points will be based more on quality than quantity. While it is relatively easy to post numerous, non-substantive comments, it takes more thought and effort to post intelligent, meaningful comments that move the discussion forward. For example, meaningful posts tend to:

- Provide concrete examples, perhaps from your own experience
- Identify consequences or implications
- Challenge something that has been posted – perhaps by playing —devil's advocate
- Pose a related question or issue
- Suggest a different perspective or interpretation
- Pull in related information from other sources – books, articles, websites, courses, etc.

Consider your time commitment to our online discussions to be critical to your success as a learner, as well as to the success of the course. Because *ongoing* participation is expected, participation scores will be based on three primary criteria:

1. Frequency and timeliness of postings

2. Content of your postings (the thoughtfulness/reflection that goes into your responses and the extent to which they address the topic for the week, including the assigned readings)
3. Adherence to online protocol (see rubric in the course website)

An online discussion forum is a “technological cognitive tool” that stimulates cognitive learning and critical thinking. Students engaged with course content in forums engage with other students in a generative processing of information. “Students draw upon their own experiences and interpretations and share these in the group discussion. They read other student responses and interpretations and compare these with their own thoughts. This involves the processes of reflection and the construction and re-construction of domains of knowledge. The resulting kinds of learning from these processes are not a regurgitation of a lecture or reading. It is a negotiated interpretation of knowledge with student ownership. The learning is deeper and more long lasting and students refine their thinking and their voice (Markel, S. 2009).

Asynchronous discussion enhances learning as you share your ideas, perspectives, and experiences with the class. You develop and refine your thoughts through the writing process, plus broaden your classmates’ understanding of the course content. Use the following feedback to improve the quality of your discussion contributions.

Examples of postings that demonstrate higher levels of thinking:

- “Some common themes I see between your experiences and our textbook are....” (analysis)
- “These newer trends are significant if we consider the relationship between” (synthesis)
- “The body of literature should be assessed by these standards” (evaluation)

Institutional Policies

Please refer to the University and Course Policies and Resources block within your course.

Policies at Calvin offer our students both support and boundaries for wellness and success. It's important that you read through these policies and know your responsibilities and rights, whether on campus or online.