



Biology (BIOL) 235

Human Anatomy and Physiology (Revision 12)

Status:

Replaced with new revision, see the [course listing](#) for the current revision

Delivery mode:

[Individualized study online](#) or [Grouped study](#)

Credits:

6

Area of study:

Science

Prerequisites:

None. Although this course assumes no prior knowledge of the human body, a basic knowledge of biology and chemistry would be an asset to the student.

Precluded:

BIOL 230 (BIOL 235 may not be taken for credit if credit has already been obtained for BIOL 230.)

Challenge:

BIOL 235 has a challenge for credit option.

Faculty:

[Faculty of Science and Technology](#)

BIOL 235 has a Challenge for Credit option,

Notes:

except to meet program requirements in the AU Post-LPN BN program.

Note: Students are encouraged to contact their program advisor to ensure this option will work for their particular program.

Overview

Welcome to *Biology 235: Human Anatomy and Physiology*, a six-credit, university-level course that covers all major elements of the human body, including basic anatomy, fundamental organic chemistry, cellular structure and function, and the integration, organization, and control of all the body systems. While completing this course, you will acquire an understanding of normal anatomy and physiology, of physiological adaptations to special conditions, and of some of the physiological factors in disease processes.

Outline

- Chapter 1: An Introduction to the Human Body
- Chapter 2: The Chemical Level of Organization
- Chapter 3: The Cellular Level of Organization
- Chapter 4: The Tissue Level of Organization
- Chapter 5: The Integumentary System
- Chapter 6: The Skeletal System: Bone Tissue
- Chapter 7: The Skeletal System: The Axial Skeleton
- Chapter 8: The Skeletal System: The Appendicular Skeleton
- Chapter 9: Joints
- Chapter 10: Muscular Tissue
- Chapter 11: The Muscular System

- Chapter 12: Nervous Tissue
- Chapter 13: The Spinal Cord and Spinal Nerves
- Chapter 14: The Brain and Cranial Nerves
- Chapter 15: The Autonomic Nervous System
- Chapter 16: Sensory, Motor, and Integrative Systems
- Chapter 17: The Special Senses
- Chapter 18: The Endocrine System
- Chapter 19: The Cardiovascular System: The Blood
- Chapter 20: The Cardiovascular System: The Heart
- Chapter 21: The Cardiovascular System: Blood Vessels and Hemodynamics
- Chapter 22: The Lymphatic System and Immunity
- Chapter 23: The Respiratory System
- Chapter 24: The Digestive System
- Chapter 25: Metabolism and Nutrition
- Chapter 26: The Urinary System
- Chapter 27: Fluid, Electrolyte, and Acid–Base Homeostasis
- Chapter 28: The Reproductive Systems
- Chapter 29: Development and Inheritance

Learning outcomes


Upon successful completion of this course, you will be able to

- Develop a vocabulary of terminology to communicate the information effectively for topics related to human anatomy and physiology.
- Know, recognize, and explain the principle of homeostasis and how the feedback systems control the physiological processes in the human body.
- Know, understand, and explain the connections within and between anatomical and physiological systems of the human body.

- Know the anatomical structures, explain physiological functions, and recognize and explain the principle of homeostasis applied to all 11 systems of the human body.
- Use knowledge of anatomy to predict physiological responses and use knowledge of physiology to predict the variations of anatomical structures.
- Synthesize ideas and understand how changes to anatomy and physiology could result in situations of homeostatic imbalances.

(Adapted from HAPS Learning Outcomes Project, 2010)

Evaluation

Your final grade in *Biology 235: Human Anatomy and Physiology* is based on the grades you achieve on 6 quizzes, 3 written assignments, and 3 exams. The Study Schedule in the Course Orientation suggests when you should complete each quiz and assignment, and when you should write the exams. The passing grade for this course is **D (50 percent)** .

In order to complete the course, you must achieve a minimum passing grade of one hundred percent (100%) on Assignment 0, forty percent (40%) on each quiz and each of Assignments 1-3, and a minimum passing grade of fifty percent (50%) on each exam. If you obtain less than the required passing grade on any quiz or assignment, you will be required to take another version of the quiz or assignment. This applies **only** to the quizzes and assignments for which you did not receive a minimum passing grade; you may not take an alternative quiz or assignment in an attempt to increase your grades.

Activity	Weight
Assignment 0	1% of total with a minimum passing grade of 100%
Quiz 1	6% of total with a minimum passing grade of 40%
Quiz 2	6% of total with a minimum passing grade of 40%
Quiz 3	6% of total with a minimum passing grade of 40%

Activity	Weight
Quiz 4	6% of total with a minimum passing grade of 40%
Quiz 5	6% of total with a minimum passing grade of 40%
Quiz 6	6% of total with a minimum passing grade of 40%
Assignment 1	5% of total with a minimum passing grade of 40%
Assignment 2	5% of total with a minimum passing grade of 40%
Assignment 3	5% of total with a minimum passing grade of 40%
Midterm Exam 1	16% of total with a minimum passing grade of 50%
Midterm Exam 2	16% of total with a minimum passing grade of 50%
Final Exam	16% of total with a minimum passing grade of 50%
Total	100%

The **midterm and final examinations** for this course must be requested in advance and written under the supervision of an AU-approved exam invigilator. Invigilators include either ProctorU or an approved in-person invigilation centre that can accommodate online exams. Students are responsible for payment of any invigilation fees. Information on exam request deadlines, invigilators, and other exam-related questions, can be found at the [Exams and grades](#) section of the Calendar.

To learn more about assignments and examinations, please refer to Athabasca University's [online Calendar](#).

Materials

Tortora, G., & Derrickson, B. (2017). *Principles of anatomy and*

physiology (15th ed.). Wiley.  (PDF)

Customized eText

The above eText has been converted into a series of PDFs that accompany each Study Guide unit. The customized eText (PDF) is split into six units, and the keywords and topics that you are required to learn are underlined and highlighted in green. You will not be tested on content that has been crossed-out.

WileyPLUS Publisher Resources

WileyPLUS is a publisher website that accompanies your eText. It is included with your course registration. You are not graded for any of the work you complete in WileyPLUS, but you are encouraged to enrich your learning with the online tools it provides.


Challenge for credit

Overview

The challenge for credit process allows you to demonstrate that you have acquired a command of the general subject matter, knowledge, intellectual and/or other skills that would normally be found in a university-level course.

Full information about [challenge for credit](#)  can be found in the Undergraduate Calendar.





Evaluation

To **receive credit**  for the BIOL 235 challenge registration, you must complete both parts of the Challenge Exam and receive a minimum passing grade of 50% on each part, which translates to at least 60 correct answers out of 120 questions on each of the two parts of this Challenge Exam.

Course materials and the textbook cannot be provided by Athabasca University. The two parts of the exam must be written on the same day, with a break in between. For more specific details, please contact the Course Coordinator.

 [Challenge for credit course registration form](#)

Important links

- › [Academic advising](#) 
- › [Program planning](#) 
- › [Request assistance](#) 
- › [Support services](#) 

Athabasca University reserves the right to amend course outlines occasionally and without notice. Courses offered by other delivery methods may vary from their individualized study counterparts.

Opened in Revision 12, July 1, 2021

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View [previous revision](#) 
