

BIOL 141

Introduction to Physiology

Sample Syllabus

Description

The human body is fascinating to most of us, presumably because we have a rather vested interest in it. It is especially interesting when we include the physiology of diseases, as diseases often represent good illustrations of the systems not functioning properly. I have tried to include information that will both sustain and stimulate your interest, as well as challenge you to extend your knowledge outside this course. There are many good programs on the Public Broadcasting System and cable TV as well as articles in magazines such as Science News, Scientific American, Discover, Scientific American Science and Medicine, and Natural History that illustrate the fascinating aspects of human physiology. One of the goals of this course is to develop your ability to understand the more complex scientific and medical advances that are occurring with increasing frequency today.

Objectives

This course is designed to cover the fundamentals of human physiology for students in a variety of life science-related majors including Nursing, Kinesiology, Athletic Training, and Science. By the time you complete this course, you should:

- Have a working knowledge and understanding of basic human physiology.
- Be able to apply these physiological principles to problem solving situations as observed in medical situations, including cardiac problems, hypertension, renal failure, acid-base balance disturbances, and endocrine imbalances.
- Have a practical understanding of physiology upon which you can build and use in future clinical settings.

Textbook

Human Anatomy & Physiology, 10th Edition, by Elaine Marieb and Katja Hoehn, Pearson Benjamin Cummings Publishers, 2016. ISBN: 9780321927040

Course Schedule

Lesson	Topic
1	Introduction to Physiology: Cell Chemistry, The Living Cell, Tissues and Organ Systems
2	Cell Growth, Reproduction, Nutrition, and Intermediary Metabolism
3	Physiology of Muscles
4	Nerve Impulse Physiology
5	The Central Nervous System, The Peripheral Nervous System, The Autonomic Nervous System, and The Special Senses
6	The Endocrine System
7	The Blood, The Cardiovascular System, and Capillary Exchange
8	The Lymphatic System and The Immune System
9	The Respiratory System
10	The Digestive System
11	The Urinary System and Regulation of Fluids, Electrolytes, and pH in the Body
12	The Reproductive Systems, Pregnancy, and Human Development

Grading

Your final grade will be based on your performance on the 12 lesson assignments, four discussion forums, and two exams as shown below:

Activity	Breakdown	Total Points
Lesson Assignments	12 (100pts/each)	1200
Discussion Forums / Class Participation	4 (25pts/each)	100
Mid-Course Exam	1 (200pts)	200
Final Exam	1 (200pts)	200
Total		1700

Grade Scale

Letter Grade	Points
A	1580+
A-	1530-1579
B+	1470-1529
B	1415-1469
B-	1360-1414
C+	1275-1359
C	1190-1274
D	1020-1189
F	< 1020

Academic Integrity

Academic integrity is the pursuit of scholarly activity in an open, honest and responsible manner. Academic integrity is a basic guiding principle for all academic activity at The Pennsylvania State University, and all members of the University community are expected to act in accordance with this principle. Consistent with this expectation, the University's Code

of Conduct states that all students should act with personal integrity, respect other students' dignity, rights and property, and help create and maintain an environment in which all can succeed through the fruits of their efforts.

Academic integrity includes a commitment by all members of the University community not to engage in or tolerate acts of falsification, misrepresentation or deception. Such acts of dishonesty violate the fundamental ethical principles of the University community and compromise the worth of work completed by others.

Accommodating Disabilities

Penn State welcomes students with disabilities into the University's educational programs. Every Penn State campus has an office for students with disabilities. The [Student Disability Resources \(SDR\) website](#) provides contact information for every Penn State campus . For further information, please visit [Student Disability Resources website](#).

In order to receive consideration for reasonable accommodations, you must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation: [See documentation guidelines](#) . If the documentation supports your request for reasonable accommodations, your campus disability services office will provide you with an accommodation letter. Please share this letter with your instructors and discuss the accommodations with them as early as possible. You must follow this process for every semester that you request accommodations.

Counseling and Psychological Services

Many students at Penn State face personal challenges or have psychological needs that may interfere with their academic progress, social development, or emotional wellbeing. The university offers a variety of confidential services to help you through difficult times, including individual and group counseling, crisis intervention, consultations, online chats, and mental health screenings. These services are provided by staff who welcome all students and embrace a

philosophy respectful of clients' cultural and religious backgrounds, and sensitive to differences in race, ability, gender identity and sexual orientation.

- [Counseling and Psychological Services at University Park \(CAPS\)](#): 814-863-0395
- [Counseling and Psychological Services at Commonwealth Campuses](#)
- Penn State Crisis Line (Available 24 hrs, 7 days a week): 877-229-6400
- Crisis Text Line (Available 24 hrs, 7 days a week): Text LIONS to 741741

Educational Equity / Report Bias

Penn State takes great pride to foster a diverse and inclusive environment for students, faculty, and staff. Acts of intolerance, discrimination, or harassment due to age, ancestry, color, disability, gender, gender identity, national origin, race, religious belief, sexual orientation, or veteran status are not tolerated and can be reported through Educational Equity via the [Report Bias website](#).