

BIOL 155

An Introduction to the Biology of Aging

Sample Syllabus

Description

Biology 155 is a 3-credit lecture course designed to give both science and non-science majors a basic understanding of the aging process, with special emphasis on aging as it relates to the human body and health. The first third of the course will discuss important aging terminology, methods of measuring aging, current theories of the aging process, and research models used to study aging. The later two thirds of the course will review aging as related to specific body systems. As such, portions of lessons will review normal anatomy (structure naming) and physiology (body function) of these body systems. In this later section, details of both senescence and age-related disease processes will be discussed.

Objectives

Upon completion of this course, you will have:

- Developed a functional understanding of how our bodies change over time
- Gained a perspective on major diseases that affect our aging bodies
- Understand how long-term, healthy living strategies and interventions, started during young life, can potentially prolong life and add additional healthy years to our lifespan

Course Schedule

Lesson	Topic
1	Getting Started
2	Overview of Aging and Life Expectancy

3	Theories of Aging
4	Aging and Population Demography
5	Cancer, Aging, and the Immune System
6	Cutaneous Aging
7	Aging of the Musculoskeletal System
8	Mid-Course Exam
9	The Nervous System and Aging; Special Senses and Aging
10	Special Senses and Aging
11	Aging and the Cardiovascular System
12	Aging of the Respiratory and Urinary Systems
13	Endocrine Changes in the Elderly
14	Reproductive System Aging
15	Final Exam

Textbook

Digovanna, Augustine. Human Aging, Biological Perspectives, 2nd edition. McGraw Hill.

Grading

Your course grade will be based upon your performance on the lesson assignments and two examinations. The lesson assignments will be 1/3 of the final course grade, with the mid-course counting as 1/3 and the final counting as the last 1/3. Examinations will have 30 multiple choice, matching and true/false questions, worth 80% of the exam points, and the remaining 20% of the exam points will be performance on a short essay and term definitions. The mid-course exam will stress material developed in lesson assignments 2-7. The final exam will stress material developed in lesson assignments 9-14, and will not be comprehensive.

That said, some broad concepts developed throughout the course, could be found in some questions.

Activity	% of Grade
Lessons (average score)	33.3%
Mid-Course Exam	33.3%
Final Exam	33.3%

Grade Scale

Letter Grade	% Range
A	93-100%
A-	90-92%
B+	87-89%
B	83-85%
B-	80-82%
C+	77-79%
C	70-76%
D	60-69%
F	< 60%

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.

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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

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