

BIOL C120: BIOLOGY OF AGING

Item	Value
Curriculum Committee Approval Date	04/10/2009
Top Code	040100 - Biology, General
Units	3 Total Units
Hours	54 Total Hours (Lecture Hours 54)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	No
Basic Skills	Not Basic Skills (N)
Repeatable	No
Open Entry/Open Exit	No
Grading Policy	Standard Letter (S), • Pass/No Pass (B)
Local General Education (GE)	• Area 5B Life Sciences (CB2)
California State University General Education Breadth (CSU GE-Breadth)	• CSU B2 Life Science (B2)

Course Description

This course will explore normal versus abnormal changes in aging and the human ability to adapt. Each body system will be reviewed, focusing on how age changes relate to the development of disorders and diseases in later life. Methods of assisting older persons in adapting to acute and chronic illnesses and in health promotion and maintenance will be discussed. Enrollment Limitation: AGNG C122; students who complete BIOL C120 may not enroll in or receive credit for AGNG C122. Transfer Credit: CSU; UC: Credit Limitation: BIOL C120 and AGNG C122 combined: maximum credit, 1 course.

Course Level Student Learning Outcome(s)

1. Interpret and apply major biological theories and principles of aging to determine their impact and implication on the individual and society as a whole.
2. Communicate normal and abnormal changes that accompany aging as well as the ability to adapt.
3. Investigate disease and normal aging processes, document changes to body systems, and support conclusions with valid research principles.

Course Objectives

- 1. Present and apply major theories in the field of biological aging.
- 2. Interpret biological age-changes and make recommendations for adaptation.
- 3. Distinguish normal age change from disease.

Lecture Content

Overview of biological aspects of aging
Methods used to study aging
Aging demographics
Aging stereotypes
Ability to change and adapt
Common terms related to aging and physiology
Theories of aging
Current

ideas of the causes of aging
Key lifestyle factors which affect healthy aging
Thoughts on maximum life span
Physiological processes in maturity and aging
Life expectancy vs. life span
Definition of senescence
Individual (non-disease related) changes in body systems
Sexuality
Individual (non-disease related) changes in body systems
Diseases and disorders

Method(s) of Instruction

- Lecture (02)
- DE Online Lecture (02X)

Instructional Techniques

The classroom delivery method may include lecture, discussion, question-and-answer sessions, small-group problem solving and/or case-study reviews based on real-life situations. The lecture format may utilize PowerPoint presentations, guest speakers, and field trips.

Reading Assignments

Assigned readings, library assignments, case studies, and/or interviews may be assigned.

Writing Assignments

Students may complete essays or research reports that require them to analyze, interpret, evaluate, and synthesize primary and/or secondary biological data and draw appropriate conclusions and to present their conclusions in a well-organized and clearly written format

Out-of-class Assignments

Reading and written assignments, research assignments, preparation of content to share with the class on discussion boards and responses to content presented, analysis of case studies and review of expert interviews, responses to guiding questions on course content, identifying applicable podcasts, and/or self-assessments.

Demonstration of Critical Thinking

Examples include research assignments, preparation of content to share with the class on discussion boards and responses to content presented, analysis of case studies and review of expert interviews, responses to guiding questions on course content, self-assessments

Required Writing, Problem Solving, Skills Demonstration

Preparation of content to share with the class on discussion boards and responses to content presented.

Eligible Disciplines

Biological sciences: Master's degree in any biological science OR bachelor's degree in any biological science AND master's degree in biochemistry, biophysics, or marine science OR the equivalent. Master's degree required. Gerontology: Master's degree in gerontology OR the equivalent OR see interdisciplinary studies. Master's degree required.

Textbooks Resources

1. Required DiGiovanna, Augustine Gaspar. Human Aging: Biological Perspectives (Custom), 2nd ed. ISBN: 9780077407209: McGraw-Hill, 2009
Rationale: Legacy Text
Legacy Textbook Transfer Data: Legacy Text 2.
Required Saxon S.V.; Etten M.J.; Perkins E.A. Physical Change Aging: A Guide for the Helping Professions, 7th ed. N.Y.: Springer Publishing Co, 2021
Rationale: Legacy Text

Other Resources

1. Coastline Library