



# PENSACOLA STATE COLLEGE

## SYLLABUS

### Introduction to Biology

BSC1005-S1041

Spring 2026, Session A

**Instructor:** Juline Smith

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**Last Date of Drop/Add:** January 15, 2026

**Last Date for Student to Withdraw:** April 6, 2026

**Final Exam Date:** TBD

**Class Meeting Time:** Monday, Wednesday | 9:30 AM - 10:45 AM

**Class Location:** South Santa Rosa Center, Room 5185

**Course Description:** This course applies the scientific method to critically examine and explain the natural world including but not limited to cells, organisms, genetics, evolution, ecology, and behavior.

**Credit Hours:** 3 credit hours

**Semesters Offered:** Fall, Spring, Summer

**Course Designations:** College Transfer. Meets AA General Education Core, Natural Sciences (Physical Sciences) requirement.

**General Education Core Course Standard: Per Florida Statute 1007.25,** "Natural science courses must afford students the ability to critically examine and evaluate the principles of the scientific method, model construction, and use the scientific method to explain natural experiences and phenomena."

**Required Textbooks and Instructional Materials:** *Biology The Core* (LL w/Access); Simon, Eric; 9780135437186; Pearson; 3<sup>rd</sup>, 2025 or *Biology The Core* (Modified Mastering w/ Pearson eText Student Access); Simon, Eric; 9780138276577; Pearson; 3<sup>rd</sup>; 2025

The educational materials used in this course, including textbooks and ancillary materials, are intended for educational purposes only. All opinions represent those of the author(s) and not necessarily those of Pensacola State College, or the instructor.

### Course Learning Outcomes:

1. Become familiar with the principles of biology including the cell theory, cellular processes, theory of heredity and evolution, and the major groups of organisms.
2. Describe the levels of organization of life.
3. Identify characteristics of living organisms.
4. Describe the structure of an atom.

5. Explain the various types of chemical bonds and how they are formed.
6. Relate chemistry and chemical processes to living organisms.
7. Differentiate between organic and inorganic molecules that are important for the survival of living organisms.
8. Explain the cell theory.
9. Distinguish among various cell types including prokaryotes and eukaryotes.
10. Identify major cellular organelles and their functions.
11. Explain the function of the cell membrane including the various types of transport across the cell membrane.
12. Compare and contrast mitosis and meiosis.
13. Explain the basic concepts of heredity.
14. Describe the basic structure and function of DNA and RNA.
15. Explain the process of protein synthesis.
16. Discuss cellular respiration and photosynthesis.
17. Distinguish between anaerobic and aerobic respiration
18. Evaluate evolution and the role of random mutation and natural selection to the adaptation of organisms.
19. Describe species and speciation.
20. Relate the importance of other living organisms to the existence of humans.
21. Categorize living organisms according to domain, kingdom, and phyla.
22. Identify the major organs, functions, and homeostatic imbalances of the human body systems.
23. Compare human body systems to the systems of other living organisms.
24. Evaluate the effect of various human practices on the environment.

#### **General Education Student Learning Outcomes:**

- 1. Critical Thinking:** The student analyzes, evaluates, and, if necessary, challenges the validity of ideas, principles, or data in order to develop informed opinions, probable predictions, or defensible conclusions.
- 2. Scientific and Mathematical Literacy:** The student properly identifies and applies scientific or mathematical principles and methods.
- 3. Information Literacy:** The student effectively locates, evaluates, and applies information from a variety of sources.

**Methods of Evaluation:** At minimum, the instructor will cover content which aligns with statewide and institutional learning outcomes for the course. The instructor will measure student performance using the following:

Grade calculation: Your final grade is based on your (1) 4-chapter tests, (2) homework, (3) classroom assignments, (4) optional final exam.

#### **Grading Scale**

>90%	A
88 – 89%	B+
80 – 87%	B
78 – 79%	C+
70 – 77%	C
68 – 69%	D+
60 – 67%	D
59% and below	F

#### **Points Breakdown:**

Exam 1 - 4	400 points
Homework	278 points
Class Assignments	72 points
<b>TOTAL</b>	<b>750 points</b>

\*All points totals are approximate

#### **Instructor Requirements:**

## **Reading Summaries:**

### Reading Summary for Unit 1 Exam (Intro to Science, Cells, Nutrition and Diabetes):

Core Issues: Nutrition (CI.1) and Diabetes (CI.7)

Chapter 1: An Introduction to the Science of Life - Sections 1-5, 8,

Chapter 2: The Chemistry of Life - Sections 1, 2, 7-12

Chapter 3: The Cell: The Fundamental Unit of Life - Sections 1- 8

Chapter 4: Energy and Life - Sections 7, 9,10

Chapter 11: Human Body Systems - Sections 1- 7, 14

### Reading Summary for Exam 2 (CV Disease, Cancer, Vaccines, MRSA):

Core Issues: Cancer (CI.2), Vaccines (CI.5), MRSA (CI.4)

Chapter 2: The Chemistry of Life - Sections 8, 10,11

Chapter 3: The Cell: The Fundamental Unit of Life - Section 1

Chapter 5: Chromosomes and Inheritance - Sections 1- 5

Chapter 6: DNA: The Molecule of Life - Sections 10-12

Chapter 7: Darwinian Evolution - Sections 2- 3

Chapter 8: Biodiversity 1: Microscopic Organisms - Sections 2, 4, 5, 9- 11

Chapter 11: Human Body Systems - Sections 1- 3, 8- 13

### Reading Summary for Exam 3 (Sexual Reproduction and Meiosis, Genetic Testing & DNA Profiling):

Chapter 3: The Cell: The Fundamental Unit of Life - Section: 1

Chapter 5: Chromosomes and Inheritance - Sections: 1, 2, 6- 16, 18

Chapter 6: DNA: The Molecule of Life - Sections: 1 -4, 6, 10, 13- 19

Chapter 11: Human Body Systems - Sections: 13- 18

### Reading Summary for Exam 4 (Weird Life, Plants, Climate Change):

Core Issues: Climate Change (CI.10)

Chapter 1: An Introduction to the Science of Life - Section 1.7

Chapter 4: Energy and Life – Sections 3, 4, 6

Chapter 7: Darwinian Evolution - Section 12

Chapter 8: Biodiversity 1: Microscopic Organisms – Sections 6, 7

Chapter 9: Biodiversity 2: Fungi and Plants - Sections 1-3, 6-12

Chapter 10: Biodiversity 3: Animals – Sections 1 - 11

Chapter 12: Ecology - Sections 1-3, 8, 12-19

**Withdrawal:** It will be your responsibility to withdraw from the course, should you see fit. If you do not withdraw, you will receive a letter grade for the course.

**Attendance:** Any student who has four consecutive absences without prior communication will receive an early “F.”

**Assignments:** Various assignments from Mastering - One active reading guide (10 points) and one homework assignment (10 points) from each topic. Online and class activities, will be given throughout the semester. You will have the opportunity to earn points by completing all the various assignments. Assignments are to be submitted on the due date. Any assignment submitted after the due date, even if it is by a couple of minutes, will be graded as a late assignment. There will be a 10%-point deduction for each day they are late. If you are absent from class on a day when an assignment is to be turned in, you must submit it to me via email by 12:00 PM on the due date to avoid being marked as late. No assignments will be accepted after you have been tested on the material that the assignment covered. There will be random opportunities throughout the semester to earn extra credit points.

**Unit Exams:** Four (4) unit exams will be administered throughout the semester. Each exams will be composed of multiple-choice questions and be worth 100 pts. These exams will assess both lecture material and the content from your reading assignments. **I DO NOT GIVE MAKE-UP EXAMS without prior arrangements. If you miss an exam, you will have the opportunity to replace your missed (or lowest exam score) with the cumulative final.** All exams and answer sheets will be retained by the instructor.

**Final Exams:** There will be an optional final exam, worth 100 points at the end of the semester. This exam will cover all the material that has been discussed throughout the semester. Your final exam score may be used to replace a missed exam or an exam that you scored poorly on. The optional final exam will not have a negative impact on your grade.

**Student Expectations:** Students enrolled in this course can expect the following:

1. Clearly identified course objectives;
2. Productive class meetings;
3. A positive learning environment;
4. Opportunities for appropriate student participation;
5. Effective instruction;
6. Positive and appropriate interactions;
7. Assistance with meeting course objectives during and beyond class hours;
8. Evaluation of student performance and appropriate and timely feedback; and
9. Clear and well-organized instruction.

**Academic Dishonesty Statement:** Pensacola State College is committed to upholding the highest standards of academic conduct. All forms of academic dishonesty, to include plagiarism and cheating, are prohibited. Penalties for academic dishonesty include but are not limited to one or more of the following: the awarding of no credit on the assignment, a reduction in the course grade, or the assignment of a final course grade of F and removal from the course. See the College Catalog for more details: [Academic Integrity](#)

**ADA Statement:** Students with a disability that falls under the Americans with Disability Act Amendments Act of 2008 or Section 504 of the Rehabilitation Act should contact the Student Resource Center for ADA Services to discuss academic accommodations. Appropriate academic accommodations are determined on an individual basis with careful consideration of the course learning outcomes and the documentation of the disability. For more information, students should visit the Student Resource Center for ADA Services on the Pensacola campus in building 6, room 603; call 850-484-1637; email [ADAservices@pensacolastate.edu](mailto:ADAservices@pensacolastate.edu); or complete the online intake form in the ADA Services app within the MyPSC apps dashboard.

**Emergency Statement:** In the case of severe weather or other emergency, the College administration maintains communication with appropriate state and local agencies and makes a determination regarding the cancellation of classes. Notices of cancellation will be made through the College's PSC Alert system and on the College's website.

**Flexibility Statement:** It is the intention of the instructor to accomplish the objectives specified in the course syllabus. However, circumstances may arise which prohibit the fulfilling of this endeavor. Therefore, this syllabus is subject to change. When possible, students will be notified of any change in advance of its occurrence.

**Non-Discrimination Statement:** Pensacola State College does not discriminate against any person on the basis of race, color, ethnicity, religion, sex (as defined by applicable federal and state law), national origin, age, disability, genetic information, pregnancy, or marital status in its educational programs, activities, or employment. For inquiries regarding the College's nondiscrimination policies, contact the Civil Rights Compliance Officer at (850) 484-1759, Pensacola State College, 1000 College Blvd., Pensacola, Florida 32504.

**Security Statement:** Pensacola State College is committed to encouraging all members of the College community to be proactive in personal safety measures. In case of emergency, students should ensure that they are aware of the building exit closest to each of their classrooms, as well as all alternative building exits in case circumstances require using a different route.

**Student Email Accounts:** Pensacola State College provides an institutional email account to all students enrolled in courses for credit. PirateMail is the official method of communication, and students must use PirateMail when communicating with the College. In cases where companion software is used for a particular class, email may be exchanged between instructor and student using the companion software.

