



PENSACOLA STATE COLLEGE

Principles of Biology – Section Syllabus

BSC 1010, Section P1154

Fall 2025, Session A

Instructor: Dr. Iris Knoebl

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Final Exam Date: TBD

Last Date of Drop/Add: August 22, 2025

Last Date for Student to Withdraw: November 4, 2025

Course Description: A study of the cellular, genetic, and evolutionary principles which form the foundations of biology. Emphasizes biomolecules, cell structure and function, protein synthesis, genetics, and organic evolution. The first course for biology majors.

Class Meeting Time: M_W | 11:00 AM - 12:15 PM

Class Location: Pensacola Campus, Building 17, Room 1707

Credits: 3

Prerequisites: Placement at the college level or completion of the appropriate exit-level developmental course(s) with a grade of C or better.

Semester Offered: Fall, Spring

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 w/ Connect Access (PSC custom); Raven, Peter, et al. Biology Access, 9781265251185, McGraw Hill, 13th edition, 2025

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.
9. Clear and well-organized instruction.

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:

Exams: Five exams will be given, including the final exam. The final exam will be comprehensive. Each exam is worth 100 points.

Assignments/Quizzes: There will also be 15 Connect SmartBook reading assignments (10 points each) with questions for each chapter. Homework assignments in Connect will be available for study purposes but will not be graded. All Smartbook and homework assignments will be done through the McGraw Hill Connect tab in eLearning/Canvas. I may also occasionally assign in-class discussions and end of class quizzes. These end-of-class quizzes will count for points, so please be sure to take notes during class.

Exams -- 500 points

Smartbook assignments -- 150 points

Other quizzes and assignments -- to be determined.

Grading Criteria: Final grades are determined by averaging all test scores, quizzes and homework assignments.

The grading scale (in percentage points) is as follows:

| | | | |
|----------|----|--------------|----|
| 100 - 90 | A | 77 - 70 | C |
| 89 - 88 | B+ | 69 - 68 | D+ |
| 87 - 80 | B | 67 -60 | D |
| 79 -78 | C+ | 59 and below | F |

Course Learning Outcomes:

1. Understand the scientific method and hypothesis testing.
2. Evaluate the molecular structure of water and its importance as a biological molecule.
3. Describe the molecular structure of biological molecules (proteins, fats, carbohydrates and nucleic acids) and their role in biological systems.
4. Appreciate the structure of the cell and the functions of organelles.
5. Understand the structure of nucleic acids and the processes of replication, transcription and translation.
6. Identify cellular metabolism, enzyme function, cellular respiration, and photosynthesis.
7. Explain diffusion, osmosis, and cell membrane function, including protein channels and carriers.
8. Describe the cell cycle and cell cycle control.
9. Become familiar with simple and complex inheritance patterns.
10. Understand the genetic variation produced by meiosis and sexual life cycles.
11. Appreciate the regulation of gene expression.
12. Explain cellular communication and signal transduction.

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.

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:

<https://catalog.pensacolastate.edu/content.php?catoid=2&navoid=47#academic-honesty>

Student Email Accounts: Pensacola State College provides an institutional email account to all students enrolled in courses for credit. This institutional email account is the official method of communication, and students must use this account 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.

Flexibility: 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.

ADA Statement: Students with a disability that qualifies under the American with Disabilities Act Amendments Act of 2008 (ADAAA) must self-identify with the Student Resource Center for ADA Services (SRC/ADA). Disabilities covered by the ADAAA may include learning, psychiatric, physical disabilities, or chronic health disorders. Students can contact SRC/ADA if they are not certain whether a medical condition/disability qualifies. SRC/ADA is located on the Pensacola campus in building 6, room 603, ADA-services@pensacolastate.edu, 850-484-1637. Students may also complete the online intake form in the ADA Services app within the PSC apps dashboard.

Equity Statement: Pensacola State College does not discriminate against any person on the basis of race, ethnicity, national origin, color, gender/sex, age, religion, marital status, pregnancy, disability, sexual orientation, gender identity, or genetic information in its educational programs, activities, or employment. For inquiries regarding Title IX and the College's nondiscrimination policies, contact the Dean of Students 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.

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.