



蘇州大學
Soochow University

BIO 100 Introduction to Biology

Summer 2024

Course Credits: 4

Contact Hours: 56 hours

Instructor: TBA

Email: TBA

COURSE OBJECTIVES

This course is designed for students seeking a foundational understanding of biological systems. The course delves into fundamental principles and processes vital to comprehending biological phenomena. Areas of focus encompass the intersection of chemistry and biology, cellular dynamics, genetic inheritance, physiological functions, neural mechanisms, ecological principles, genetic variation within populations, and the evolutionary history and taxonomy of life forms.

Upon Completion of this Course, students will be able to:

1. Understand the foundational principles of biology;
2. Familiarize with the chemical basis of biological processes;
3. Provide an understanding of cellular structure and function;
4. Explore the principles of genetics and molecular biology;
5. Examine ecological concepts and their significance.

PREREQUISITES

CHM 109 General Chemistry I; CHM 119 General Chemistry I Laboratory

GRADING

Grades will be determined by accumulating points, with 100 points being the maximum, as follows:

ITEM	POINTS
Midterm 1	15 Points



Midterm 2	15 Points
2 Projects	20 Points
2 Labs	20 Points
Final Exam	30 Points
Total	100 Points

Late submissions will be graded at the end of the course. Grades will be assigned according to the following rule:

$A \geq 90 > B \geq 80 > C \geq 70 > D \geq 60 > F$.

We reserve the right to make adjustments to the overall grading policy.

COURSE MATERIALS

Required Texts:

Jane B. Reece, Martha R. Taylor, Eric J. Simon, Jean L. Dickey & Kevin G-E. Scott, *Campbell Biology: Concepts & Connections*, 10th Edition, Pearson Education The Limited, 2021.

Recommended (Optional) Texts or Other Materials:

None

COURSE TOPICS

MODULE	TASKS
Module 1	Topics: Topic 1: The Chemical Basis of Life Topic 2: The Molecules of Cells Topic 3: A Tour of the Cell Topic 4: The Working Cell Assessments: Project 1
Module 2	Topics: Topic 5: How Cells Harvest Chemical Energy Topic 6: Photosynthesis: Using Light to Make Food Topic 7: The Cellular Basis of Reproduction and Inheritance Topic 8: Patterns of Inheritance Assessments:



	Project 2
Module 3	Topics: Topic 9: Molecular Biology of the Gene Topic 10: How Genes Are Controlled Topic 11: DNA Technology and Genomics Topic 12: How Populations Evolve Assessments: Midterm#1 Lab 1
Module 4	Topics: Topic 13: The Origin of Species Topic 14: Tracing Evolutionary History Topic 15: Microbial Life: Prokaryotes and Protists Topic 16: The Evolution of Plant and Fungal Diversity Assessments: Midterm#2 Lab 2
Module 5	Topics: Topic 17: The Evolution of Invertebrate Diversity Topic 18: The Evolution of Vertebrate Diversity Topic 19: Population Ecology Topic 20: Population Ecology Assessments: Final Exam

ATTENDANCE

1) Class attendance is required. Missing classes without permission will lead to decrease in overall grade.

Missing less than two classes: no penalty.

Missing more than two classes: 7% will be taken off from the overall grade.

If the instructor reports a student's frequent missing of class to the Soochow University Academic Administration Office, the student might get a written warning and might be prohibited from attending final exam.

2) Participants in this course are expected to arrive in class promptly and adequately prepared. The primary objective of this course is to critically engage with the readings and the subject matter. Therefore, course participants are expected to have completed the reading prior to class and prepare thoughtful reflections/commentaries to share



with fellow colleagues.

LEARNING REQUIREMENTS

- 1) Late assignments are not acceptable and are subjected to grade deductions.
- 2) Assignments submitted in the wrong format will be counted as not submitted.
- 3) Failure to submit or fulfill any required course component results in failure of the class.
- 4) Make-up for midterm and final exams only with valid excuses, as defined by the University.
- 5) In order to earn a Certificate of Completion, participants must thoughtfully complete all assignments by stated deadlines and earn an average quiz score of 50% or greater.

TECHNOLOGY POLICY

The use of electronic devices in class is distracting, both for the user and for the rest of the class. Only non-programmable calculators can be used in the tests and exam. Any attempts to use cell phones and other electronic communication devices will be seemed as cheating. Laptops are discouraged, unless you use them for activities DIRECTLY related to the course (eg., note taking, reading course documents).

ACADEMIC INTEGRITY POLICY

Soochow University highly values the academic integrity and aims to promote the academic fairness, honesty and responsibility. Any academic dishonesty behaviors and any attempts to cheats and plagiarism will be reported to the university administration office. A written warning and the relevant penalties will be imposed. The record might be shown on the official university transcript.

DISABILITY ACCOMMODATION

Soochow University is committed to maintaining a barrier-free environment so that students with disabilities can fully access programs, courses, services, and activities at Soochow University. Students with disabilities who require accommodations for access to and/or participation in this course are welcome.



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Note:

Please contact the University Administrative Office immediately if you have a learning disability, a medical issue, or any other type of problem that prevents professors from seeing you have learned the course material.