

Northwest Arkansas Community College
(Science and Mathematics Division)

Discipline Code

BIOL

Course Number

2534

Course Title

Cell Biology

Catalog Description

An introduction to cell structure and function. Three hours lecture and three hours laboratory weekly.

Prerequisites

At least one semester of college biology and one semester of college chemistry.

Credit Hours

4 credit hours

Contact hours

45 lecture contact hours; 45 lab contact hours

Load hours

5 load hours

Semesters Offered

Spring, on demand

ACTS Equivalent

None

Grade Mode

A-F

Learning Outcomes

Students completing this course will:

- Examine concepts of cell structure and function.
- Evaluate current scientific methodologies.
- Demonstrate cellular and molecular laboratory methods and techniques.
- Develop writing and research skills.

General Education Outcomes Supported

None

Standard Practices

Topics list

- Overview of Cell Structure and Function
- Membranes and cell signaling
- Energy Flow in Cells
- Information Flow in Cells
- The Cytoskeleton and Cell Mobility
- Development of Cancer

Learning activities

- Courses must, at a minimum, cover the core learning outcomes for each topic.
- Laboratory exercises include cell structure, microscopy, enzyme kinetics, carbon metabolism, and molecular techniques.
- Course includes a Course-based Undergraduate Research Experience (CURE)

Assessments

- Required forms of assessment include written examinations, formal laboratory journal, and demonstration of understanding of the principles presented in lecture. Also, students will be required to demonstrate proficiency in applying core laboratory skills and practices.

Grading guidelines

- A minimum of 70% of the grade must be proctored, supervised, or otherwise verified.
- Approximately 25% of the grade must come from lab work since the lab and lecture credits for this course are combined.

Revision Date April 8, 2021