

General Education **Goals, Competencies, Outcomes,** and **Objectives**

Goal One: Critical Thinking

Students will think critically using a purposeful, reasoned, objective, and goal-directed process in a variety of contexts.

Competency: Understand and apply the elements of scientific inquiry and scientific principles in a natural science college laboratory course setting

Learning Outcome: Students will use the scientific method to define a problem, utilize appropriate methods to solve the problem, and propose and evaluate a solution to the problem.

Learning Objectives: In order to achieve the learning outcome, the student will be able to . . .

1. Observe and describe natural phenomena and formulate hypotheses.
2. Plan and implement scientific experiments to test hypotheses.
3. Utilize scientific laboratory skills for data collection within a college laboratory setting.
4. Evaluate experimental data and propose solutions based on this data.
5. Evaluate the proposed implications of a solution.

Competency: Use mathematics to effectively model and evaluate quantitative relationships

Learning Outcome: Students will apply mathematical concepts and methods to understand, analyze, and communicate in quantitative terms.

Learning Objectives: In order to achieve the learning outcome, the student will be able to . . .

1. Recognize, describe, represent, and work with numbers and their relationships to solve, estimate, calculate, and check solution of equations and systems of equations.
2. Use the language of algebra to model and evaluate the nature of relationships between variables in algebraic and transcendental functions.
3. Analyze and interpret the graphs of algebraic and transcendental functions, and communicate the results in a meaningful way.
4. Organize and interpret data using appropriate methods to draw conclusions and make predictions.

Goal Two: Communication

Students will effectively exchange ideas and information using multiple methods of communication.

Competency:

Write effectively

Learning Outcome:

Students will write Standard American English in a clear, correct, and organized manner for a variety of purposes and audiences.

Learning Objectives:

In order to achieve the learning outcome, the student will be able to . . .

1. Write clear and concise sentences using Standard American English with appropriate syntax and mechanics.
2. Write paragraphs that demonstrate unity and coherence with appropriate details and examples that support the topic and thesis.
3. Develop written compositions using organizational patterns or rhetorical modes appropriate for the desired audience and purpose.
4. Combine the composition skills of prewriting, revising, and editing to complete a final, college-level draft.

Competency:

Understand and apply current and appropriate technology tools and resources

Learning Outcome:

Students will use computer technology to retrieve and communicate information.

Learning Objectives:

In order to achieve the learning outcome, the student will be able to . . .

1. Demonstrate an understanding of the functionality and terminology associated with information technology tools and resources.
2. Demonstrate the ability to use document processing software.
3. Demonstrates the ability to use presentation software to communicate information and ideas.
4. Demonstrate the ability to conduct online research to locate and retrieve relevant information from credible sources.
5. Demonstrate the ability to appropriately and responsibly utilize current technology and communication methods.

Goal Three: Social and Cultural Awareness

Students will understand the broad diversity of the human experience.

Competency: **Recognize expressions of the human experience**

Learning Outcome: Students will explore, share, and reconstruct expressions of the human experience within the context of the past and present.

Learning Objectives: In order to achieve the learning outcome, the student will be able to . . .

1. Analyze key events (including historical, social, economic, and/or personal) that influenced a particular form of creative human expression.
2. Analyze key events (including historical, social, economic, and/or personal) that demonstrate how a particular form of creative human expression influenced other works.
3. Evaluate a particular form of creative human expression in the context of the appropriate academic discipline.
4. Create or reconstruct an expression of the human experience and share with others (*if the class is performance based*).

Competency: **Understand the processes that influence human values, thoughts, social systems, and behavior**

Learning Outcome: Students will examine the impact of social factors on personal beliefs, while considering alternatives to the dominant culture's viewpoint.

Learning Objectives: In order to achieve the learning outcome, the student will be able to . . .

1. Recognize the processes by which individuals acquire social knowledge, attitudes, and beliefs.
2. Recognize major influences on social behavior and social systems.
3. Demonstrate knowledge of human diversity, including characteristics of a culture outside the student's own.
4. Demonstrate knowledge of at least one systematic method for obtaining knowledge about social influences according to a recognized social science discipline.