

MICROBIOLOGY (A.A.)

ASSOCIATE OF ART

Microbiology is the study of microorganisms (e.g. bacteria, fungi, protists) and noncellular microscopic agents (e.g. viruses). Upon completion of the Associate of Arts in Microbiology degree, students will have gained an understanding of the fundamental principles of biology and of the scientific process, and will be able to demonstrate the analytical, critical thinking, and communication skills needed for continuing academic achievement and professional success. The Associate of Arts in Microbiology degree is designed to give students a foundational degree to serve those students who wish to enter the workforce prepared with an associate degree. It may also be used as a basis for transfer to a four-year college or university, but students should consult with a counselor for guidance with their academic plan.

Program Student Learning Outcomes

- Students explain the mechanisms of evolution, evolution's relationship to the diversity of life and organization of taxa.
- Students utilize the scientific methodology and reasoning through development of hypotheses, testing of those hypotheses through experimentation, and analysis of data in the format of a scientific paper and poster presentation.
- Students describe cell structures and the flow of genetic information and expression, and inheritance.
- Students describe the characteristics of major taxa and compare and contrast the anatomical and physiological features of the major taxa.
- Students evaluate ecological relationships at the population, community, and ecosystem level.
- Students apply laboratory skills and techniques related to the isolation, staining, identification, and control of microorganisms.

Program Requirements

Code Number	Course Title	Units
Required Courses		
BIOL 200	Principles of Biology	5.0
BIOL 201	Principles of Biology	5.0
CHEM 111	General Chemistry	5.0
CHEM 112	General Chemistry	5.0
MICR 200	Principles and Applications of Microbiology	5.0
Total Units		25

ASSOCIATE OF ARTS DEGREE REQUIREMENTS

Completion of a minimum of 60 semester units to include:

1. the courses listed above,
2. the general education requirements, and
3. a grade of "C" or better in all courses required by major.