

BOTANY (A.A.)

ASSOCIATE OF ART

Botany is a branch of biology that studies plants (e.g. structure, development, classification). Upon completion of the Associate of Arts in Botany 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 Botany 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 describe the mechanisms of evolution, evolution's relationship to the diversity of life, and organization of taxa.
- Students apply 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 identify and describe cell structures and the flow of genetic information and expression, and inheritance.
- Students describe the characteristics of major plant taxa and compare and contrast the anatomical and physiological features of the major taxa.
- Students describe and evaluate ecological relationships at the population, community, and ecosystem level.
- Students describe common adaptations plants have evolved to survive in the desert and chaparral plant communities, based on observations on field trips.
- Students describe nutrient processing and energy flow in plants at the cellular, individual, and ecosystem level through the processes of photosynthesis and cellular respiration.

Program Requirements

Code Number	Course Title	Units
Required Courses		
BIOL 120	Introduction To Biological Science	4.0
BIOL 200	Principles of Biology	5.0
BIOL 201	Principles of Biology	5.0
BOT 120	Introduction To Plant Science	4.0
CHEM 111	General Chemistry	5.0
CHEM 112	General Chemistry	5.0
Select one of the following two courses		4.0
MATH 116	Calculus for Managerial, Biological and Social Sciences (4)	
MATH 170	Analytic Geometry and Calculus I (4)	
Total Units		32

ASSOCIATE OF ARTS DEGREE REQUIREMENTS

Completion of a minimum of 60-semester units including

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