Program Level Student Learning Outcomes

Astronomy
Students completing the series of astronomy classes will be able to gain an appreciation for the scale, composition, cosmology, and driving mechanisms of the Universe.

Biological Sciences
Students completing the General Education requirements in Biological Sciences will be able to demonstrate an understanding of the scientific method to assess personal and environmental health and evaluate the impact of science on their daily lives.

Students completing the Biology Major requirements will be able to interpret, analyze, and evaluate Biological knowledge using the scientific method.

Students completing the pre-Allied Health requirements will be able to demonstrate understanding of the structure and function of the human body by applying the concept of homeostasis to basic principles in medicine, and they will also be able to explain the role of microorganisms in healthy individuals and infectious diseases.

Students completing the Certificate of Achievement in Biotechnology will be able to assess and distinguish the theory and experiment-based skills in biotechnology necessary for research, entry-level positions, and/or transfer.

Chemistry
Students completing the series of chemistry classes will be able to solve chemical problems using appropriate chemical principles.

Students completing the series of chemistry classes will be able to formulate meaningful conclusions from experimentally acquired chemical data.

Computer Science
Students completing the Associate in Science Degree in Computer Science will be able to demonstrate critical thinking and problem solving skills by identifying, evaluating, analyzing, and presenting fundamental software solutions and their applications.

Engineering
Students completing the Associate in Science Degree in Engineering will be able to interpret, analyze, and evaluate engineering concepts.

Students completing the Mechanical Drafting Certificate of Specialization will be able to demonstrate knowledge of orthographic projection and isometric sketching, AutoCAD generated drawings, current practices in architectural drafting and construction technology, and 2D and 3D drawings.

Geography
Students in the Earth & Space Sciences Department taking Geography classes will be able to accumulate a solid foundation of facts, ideas, and concepts about processes that create and modify the many patterns of both human occupation and the natural physical world.

Students in the Earth & Space Sciences Department taking Geography classes will be able to locate and analyze the distribution of physical and cultural features on maps, relate key physical features with their modifying processes, and assess variables that influence spatial cultural patterns.

Students in the Earth & Space Sciences Department taking Geography classes will be able to demonstrate an ability to acquire, retain, and synthesize new knowledge and conflicting viewpoints gained through a variety of media and/or field work, and propose balanced solutions for a host of local and global geographic issues.

Geology
Students in the Earth & Space Sciences Department taking Geology classes will be able to acquire, retain, and synthesize facts, ideas, and concepts from the field of Geology which include but are not limited to Earth's composition, formation, resources, and the processes that interact with and modify them.

Students in the Earth & Space Sciences Department taking Geology classes will be able to demonstrate an ability to acquire, retain, and synthesize new knowledge and conflicting viewpoints gained through a variety of sources, including field work, and from this knowledge, propose informed solutions for a host of local and global geological issues.

Mathematics
Students completing the Developmental Math Program will: (1) use mathematical reasoning to solve problems and a generalized problem solving process to work word problems; (2) use verbal, graphical, numerical, and symbolic representations of mathematical ideas to solve problems; and (3) demonstrate the math skills and knowledge necessary to succeed in subsequent courses.

Students completing the Transferable Math Program will: (1) be prepared for the mathematical reasoning required in upper division work in their major, including the ability to generalize concepts and comprehend increasing levels of abstraction; and (2) demonstrate mathematical literacy, problem solving ability, and modeling.

Physical Sciences
Students in the Earth & Space Sciences Department taking physical science classes will be able to understand and appreciate Nature and become knowledgeable about environmental issues, fundamental forces in Nature, how the Universe evolves, the basic principles behind modern technology, and the role of science in everyday life.

Physics
Students completing the series of physics classes will be able to understand the world around them from Mechanics through Modern Physics.