Program Learning Outcomes

Department of Chemistry

PROGRAM: CHEMISTRY, BS

1. Students will demonstrate a foundational knowledge of the principles of physical, analytical, and inorganic chemistry, including the structure of matter, fundamental chemical reactions, and the factors that regulate such processes.
2. Students will demonstrate facility with basic concepts and reactions of organic and biochemistry.
3. Students will demonstrate an understanding of the basic techniques of chemical investigation and the fundamental principles and operating procedures of the major instruments used in chemical characterization and analysis.
4. Students will participate in the life of the Chemistry Department by involvement in the chemistry club and/or in various positions of responsibility such as graders, tutors, and teaching assistants.
5. Students will develop career goals and define a path by which to achieve these goals.

PROGRAM: BIOLOGY-CHEMISTRY, BS

1. Students will demonstrate an understanding of the process of science, and of the concepts and theories of biology across a broad range of organizational levels: molecular, cellular, and organismal.
2. Students will demonstrate a foundational knowledge of the principles of physical, organic, analytical, and inorganic chemistry, including the structure of matter, fundamental chemical reactions, and the factors that regulate such processes.
3. Students will understand the basic techniques of chemical investigation and the fundamental principles and operating procedures of the major instruments used in chemical characterization and analysis.
4. Students will participate in the life of the departments of Biology and/or Chemistry by involvement in science clubs and/or in various positions of responsibility such as graders, tutors, and teaching assistants.

5. Students will develop career goals and define a path by which to achieve these goals.
6. Students will develop a rationally defensible integration of science and faith.
7. Students will gain entry to professional or graduate schools, or to science-related careers.

PROGRAM: ENVIRONMENTAL SCIENCE, BS

1. Students will demonstrate an understanding of the process of science, and of the concepts and theories of biology across a broad range of organizational levels: molecular, cellular, organismal, and ecological.
2. Students will demonstrate a foundational knowledge of the principles of physical, organic, analytical, and inorganic chemistry, including the structure of matter, fundamental chemical reactions, and the factors that regulate such processes.
3. Students will understand the basic techniques of chemical investigation and the fundamental principles and operating procedures of the major instruments used in chemical characterization and analysis.
4. Students will participate in the life of the departments of Biology and/or Chemistry by involvement in science clubs and/or in various positions of responsibility such as graders, tutors, and teaching assistants.
5. Students will develop career goals and define a path by which to achieve these goals.
6. Students will develop a rationally defensible integration of science and faith, particularly with regard to environmental stewardship.
7. Students will gain entry to professional or graduate schools, or to science-related careers.