

## MISSION STATEMENT OF THE CHEMISTRY PROGRAM AT CHAMINADE UNIVERSITY

The mission of the chemistry program is to provide a strong chemistry background for students majoring in forensic sciences and biology, as well as for students pursuing a career in professional fields requiring some chemistry knowledge. The program is also committed to the liberal arts concept of providing a broad background of knowledge and encouraging students to learn about all areas of study. The chemistry faculty is dedicated to teaching chemistry in a stimulating environment that provides ample opportunity for hands on experimentation and, whenever possible, individual research.

To achieve these goals the students who enroll in chemistry courses can expect to exhibit the following **content/discipline** skills:

- Develop an increased awareness of the universe at the molecular level.
- Develop an understanding of the physical and chemical behavior of matter.
- Become prepared for careers in chemistry, biochemistry, forensic sciences, biology, and related fields.
- Have attained a firm foundation in the fundamentals and application of current chemical and scientific theories
- Are able to follow appropriate procedures to carry out chemical experiments independently.
- Are familiar with standard instrumentation used in the chemical field.
- Are able to correlate certain properties of substances with structural characteristics using the principles of chemistry/physics.
- Can follow the proper procedures and regulations for safe handling of chemicals.

To achieve these goals the students who enroll in chemistry courses can expect to exhibit the following **critical thinking** skills:

- Are able to analyze experimental data and draw conclusions.
- Are able to make predictions based on evidence.

To achieve these goals the students who enroll in chemistry courses can expect to exhibit the following **communications** skills:

- Are able to work successfully in groups.
- Are able to present scientific information in written reports.

## **PROGRAM GOALS FOR THE MINOR IN CHEMISTRY**

Upon completion of the undergraduate minor in Chemistry, the student will demonstrate a sophisticated understanding of:

### **1. The scientific method and its application in Chemistry:**

- a. The skills and competencies in this area are conveyed to the student through the basic science courses required.
- b. Relevant Courses: CH 203, 204 12 semester hours of upper division Chemistry courses.
- c. Support courses: MA110.

### **2. The different areas of research and practice in Chemistry:**

- a. Relevant courses: 12 semester hours from CH 323, 323 L, 324, 324 L, 324, 324 L, 360, 360 L, 434, 434 L

### **3. The general concepts and principles of Chemistry:**

- a. The student is exposed to the different subdisciplines in chemistry.
- b. Relevant Courses: CH 203, 204, and 12 semester hours of upper division Chemistry courses
- c. Support courses: MA110.