Chemistry/Biochemistry Major

Learning Goals and Objectives

Canisius College

Student Learning Goal 1: Chemistry/Biochemistry majors will demonstrate an understanding of fundamental chemical and biochemical concepts.

Students will:

- Objective A: Demonstrate broad knowledge of chemical/biochemical concepts;
- Objective B: Analyze and predict the effects of chemical/biochemical changes;
- Objective C: Manipulate expressions of chemical/biochemical quantities to derive higher order relationships.

Student Learning Goal 2: Chemistry/Biochemistry majors will be able to work effectively in a professional or laboratory setting.

Students will:

- Objective A: Identify, access and use chemical/biochemical literature sources;
- Objective B: Define chemical/biochemical problems, then formulate hypotheses and design experiments to address them;
- Objective C: Carry out experiments (follow directions, manipulate materials and lab apparatus, record data);
- Objective D: Use modern instrumentation (prepare samples, operate systems, troubleshoot common problems, organize and label data);
- Objective E: Work effectively as a member of a team.

Student Learning Goal 3: Chemistry/Biochemistry majors will be proficient in the communication of chemical and biochemical information.

Students will:

- Objective A: Construct and deliver an effective oral presentation;
- Objective B: Write an effective, properly formatted scientific report.

Student Learning Goal 4: Chemistry/Biochemistry majors will demonstrate a consciousness of safe and ethical practice.

Students will:

Objective A: Work safely in the laboratory with a safety-conscious attitude;

Objective B: Show an ethical regard for environmental protection, use of information sources, reporting of results, and collaboration with colleagues.