

## B.A. AND B.S. CHEMISTRY



CHARLES E. SCHMIDT COLLEGE OF SCIENCES  
DEPARTMENT OF CHEMISTRY

## ACADEMIC LEARNING COMPACT

**CONTENT KNOWLEDGE (Declarative knowledge):** Graduates in Chemistry will understand basic concepts, theories, and experimental findings in four core areas of chemistry (analytical, biochemical, inorganic and physical).

**CRITICAL THINKING (Analytical Skills):** Graduates in Chemistry will use critical thinking to evaluate information and data related to chemical processes by applying basic principles of scientific methodology including (1) the nature of scientific explanations, (2) threats to the validity and reliability of observations, (3) the limitations of measurement scales, (4) the use of experimental and quasi-experimental designs to test hypotheses and (5) the proper interpretation of correlational and experimental data.

Students will complete the following courses, which adhere to guidelines of the American Chemical Society's Committee on Professional Training:

CHM 3120 & CHLM 3120: Quantitative Analysis Lecture and Lab

BCH 3033 & BCHL 3103: Biochemistry 1 and Biochemistry Lab

CHM 3609 & CHML 3609: Inorganic Chemistry Lecture and Lab

CHM 3410 & CHML 3410: Physical Chemistry 1 Lecture and Lab

CHM 3400: Introduction to Physical Chemistry

Examinations, research papers, and laboratory reports in each of these courses will be used to assess students' content knowledge and understanding of scientific methodology. Students with a grade of C- or higher in each of the core courses will be deemed to have met this outcome. Students who earn grades below C- will be required to repeat the course.

**CONTENT KNOWLEDGE (Technical Skills):** Graduates in Chemistry will be able to perform laboratory techniques sufficient to conduct basic and advanced experiments in Chemistry and Biochemistry.

Students will complete laboratory courses (CHML 3120, BCHL 3103, CHML 3609, and CHML 3410) in which they will conduct laboratory experiments. Students will be assessed on their technical expertise, in accord with the guidelines of the American Chemical Society's Committee on Professional Training.

**COMMUNICATION (Written communication): Graduates in Chemistry will be able to produce writing that is grammatically correct, well-organized, and properly formatted and in accord with the American Chemical Society's Style Guide.**

**COMMUNICATION (Graphic Communication): Graduates in Chemistry will be able to produce and interpret charts, graphs and tables that effectively and accurately display chemical data, relationships and principles.**

Students will complete laboratory courses (CHML 3120, BCHL 3103, CHML 3609, and CHML 3410) in which they will complete laboratory reports that require written and graphical components as appropriate to the assignment. These reports will be assessed for knowledge and application of the guidelines of the American Chemical Society's Style Guide and for skills in conveying knowledge of chemistry in written and graphical forms. In addition, students will be required to take and pass one course designated in the university's Writing Across the Curriculum program to demonstrate general writing skills. Students must earn a grade of C- or higher in that course, as well as in all of the above courses that are required in their degree program. Students who earn grades below C- will be required to repeat that course.

Approved 3-20-2006

**COMPLETE DEGREE REQUIREMENTS APPEAR IN FAU'S UNIVERSITY CATALOG**