

# BIOCHEMISTRY (BCHM)

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**BCHM 49800: INTERNSHIP: 4 Hour(s)**  
INTERNSHIP ~

**BCHM 18000: WKSP: 1 Hour(s)**

WORKSHOP: ~ Workshops may be taken Pass/No Credit only. Students may take no more than nine workshops for credit toward graduation. Workshops can be used as elective credit only.

**BCHM 28000: SEM:: 1-4 Hour(s)**

SEMINAR ~

**BCHM 28100: INDEPENDENT STUDY: 1-4 Hour(s)**

INDEPENDENT STUDY ~

**BCHM 29800: FIELD EXPERIENCE: 1-4 Hour(s)**

FIELD EXPERIENCE ~

**BCHM 36600: BASIC BIOCHEMISTRY-W/LAB: 4 Hour(s)**

BASIC BIOCHEMISTRY-W/LAB ~ Biochemistry studies the molecules and chemical reactions in living organisms. Topics include the structure and chemical properties of major macromolecules (carbohydrates, lipids, nucleotides) of living organisms, the role of enzymes and enzyme pathways by which these molecules are synthesized and degraded, and the cellular mechanisms which regulate and integrate metabolic processes. The laboratory emphasizes tools of biochemical analysis (protein and lipid isolation, chromatography, electrophoresis, centrifugation, mass spectrometry, enzyme and antibody studies) in an examination of physical, chemical, and biological properties of biologically important molecules. Must register for a BCHM 36600 lab. The breakdown between lecture and lab hours is for administrative office use only. This course may only be taken as 4 credit hours.  
Prerequisite: CHEM 32000

**BCHM 36800: INTERMED BIOCHEMISTRY-W/LAB: 4 Hour(s)**

INTERMEDIATE BIOCHEMISTRY-W/LAB ~ This course will examine some topics introduced in Basic Biochemistry expounds on the principles learned in Basic Biochemistry to the study of cancer, diabetes, toxicology, drug discovery and environmental and genetic factors to contribute to disease. Pathways associated with these diseases are also studied. Correlatively, students grow cells in the laboratory and study a variety of effects to these cells. Must also register for a BCHM 36800 lab. The breakdown between lecture and lab hours is for administrative office use only. This course may only be taken as 4 credit hours.  
Prerequisite: BCHM 36600

**BCHM 38000: SEM:: 4 Hour(s)**

SEMINAR ~

**BCHM 38100: SPC TPC:: 3-4 Hour(s)**

SPECIAL TOPICS ~

**BCHM 48000: SENIOR SEMINAR: 1-4 Hour(s)**

SENIOR SEMINAR ~

**BCHM 48100: INDEPENDENT RESEARCH: 1-4 Hour(s)**

INDEPENDENT RESEARCH ~

**BCHM 48300: RESEARCH TECHNIQUES BIOCHEM: 1-4 Hour(s)**

RESEARCH TECHNIQUES BIOCHEMISTRY ~ This course provides an opportunity for collaborative research among students and faculty. No more than six students will work with a faculty member on a defined research project. While the faculty member will guide the research project, all members of the team will work together to delineate the role(s) each will play. Students may use this research as the basis for their senior seminar (Chemistry) or APEX requirement, but only with the prior written consent of the instructor.