BIOCHEMISTRY (BIOC)

Courses

**BIOC 095. Introductory Special Topics. 1-18 Credits.** See Schedule of Courses for specific titles.

**BIOC 096. Introductory Special Topics. 1-18 Credits.** See Schedule of Courses for specific titles.

**BIOC 185. Survey of Biochemistry. 3 Credits.** Broad coverage of biochemical topics suitable for students in the applied health sciences. Prerequisite: CHEM 042 or CHEM 142. Cross-listed with: PBIO 185.

**BIOC 187. Survey of Biochemistry: Lab. 1 Credit.** Introduction to techniques and equipment used for the isolation and quantitative analysis of amino acids, proteins, carbohydrates and DNA enzymes in biological materials. Prerequisite: CHEM 042 or CHEM 142. Cross-listed with: PBIO 187.

**BIOC 191. Undergraduate Research. 1-6 Credits.** Participation in a research program currently being pursued by a faculty member of department. Written report due at end of each semester. Prerequisite: Instructor permission. Credit as arranged, up to four hours per semester.

**BIOC 192. Undergraduate Research. 1-18 Credits.** Participation in a research program currently being pursued by a faculty member of department. Written report due at end of each semester. Prerequisite: Instructor permission.

**BIOC 195. Intermediate Special Topics. 1-18 Credits.** See Schedule of Courses for specific titles.

**BIOC 196. Intermediate Special Topics. 1-18 Credits.** See Schedule of Courses for specific titles.

**BIOC 205. Biochemistry I. 3 Credits.** Introduction to chemistry and structure of biological macromolecules; examination of mechanisms of chemical processes in biological systems including enzyme catalysis, biosynthesis, regulation, and information transfer. Prerequisite: CHEM 142 or CHEM 144. Cross-listed with: CHEM 205 and MMG 205.

**BIOC 206. Biochemistry II. 3 Credits.** Continuation of Biochemistry I. Biochemistry of nucleic acids; nucleic acid based processes, such as replication and transcription; cellular information transfer, genomics, and proteomics. Prerequisite: BIOC 205, CHEM 205, or MMG 205. Cross-listed with: CHEM 206, MMG 206.

**BIOC 207. Biochemistry Lab. 2 Credits.** Introduction to biochemical tools, including spectrometry, chromatography, and electrophoresis; natural and recombinant enzyme isolation; assays of DNA-modifying enzymes; computer-based structure/function exercises. Prerequisite: BIOC 205, CHEM 205, or MMG 205. Cross-listed with: CHEM 207, MMG 207.

**BIOC 212. Biochemistry of Human Disease. 3 Credits.** Molecular approach to genetic, metabolic, and infectious diseases; recombinant DNA technology and medicine; molecular biology of cancer. Prerequisite: CHEM 042, CHEM 044, or CHEM 141.

**BIOC 240. Macromol Struct Prot&Nucl Acid. 3 Credits.** Introduction to structural biology and macromolecular structure with an emphasis on protein-protein and protein-nucleic acids interactions. Prerequisites: BIOL 002 or BCOR 012, and CHEM 142; Junior standing. Cross-listed with: MMG 240. Alternate years.

**BIOC 263. Nutritional Biochemistry. 3 Credits.** Nutritional Biochemistry is a comprehensive study of the metabolism of the macro-nutrients by humans with emphasis on hormonal control of biochemical pathways, nutritional and metabolic interrelationships and dietary disorders. The biochemistry of the micronutrients and vitamins will also be studied. Prerequisite: BIOC 205 or PBIO 185.

**BIOC 284. Biochemistry Senior Seminar. 1 Credit.** Oral and written presentation of a subject of current biochemical interest. Prerequisite: Senior standing. Cross-listed with: CHEM 284, MMG 284.

**BIOC 295. Advanced Special Topics. 1-18 Credits.** See Schedule of Courses for specific titles.

**BIOC 296. Advanced Special Topics. 1-18 Credits.** See Schedule of Courses for specific titles.