

BIOCHEMISTRY (BIOPHYSICS) (BCH)

BCH 3023C - Biochemistry (3 Credits)

The biochemistry of proteins, lipids, carbohydrates, and nucleic acids will be investigated. The principles of enzymology, metabolism and bioenergetics will be investigated. The curriculum is inquiry based and fully integrated with a laboratory that emphasizes active learning strategies.

Prerequisite(s): (CHM 2211C or (CHM 2211 and CHM 2211L))

Attribute(s): BIOE - Biology Elective, BPRO - BS Bio Pre-Pro Reqs

BCH 3025C - Analytical Biochemistry (3 Credits)

An examination of the aspects of chemical analysis within a sample that has direct biological relevance.

Prerequisite(s): BCH 3023C (may be taken concurrently) or BCH 4033C (may be taken concurrently) or (BCH 4033 (may be taken concurrently) and BCH 4033L (may be taken concurrently))

Attribute(s): BIOE - Biology Elective, BPRO - BS Bio Pre-Pro Reqs, BTEL - Biotec Restricted Elect

BCH 4033 - Advanced Biochemistry I (3 Credits)

The structure and function of proteins and enzymes are examined in detail, followed by an in depth study of metabolism including carbon and nitrogen cycles in humans, plants, and microorganisms.

Prerequisite(s): CHM 2211C or (CHM 2211 and CHM 2211L)

Corequisite(s): BCH 4033L

BCH 4033L - Advanced Biochemistry I Lab (1 Credits)

This course is the laboratory portion of Advanced Biochemistry I (BCH 4033), and is an introduction to the biochemical properties of biological systems and basic biochemistry procedures.

Prerequisite(s): CHM 2211C or (CHM 2211 and CHM 2211L)

Corequisite(s): BCH 4033

BCH 4034 - Advanced Biochemistry II (3 Credits)

The second semester of the advanced biochemistry sequence. The structure and function of biological macromolecules (carbohydrates, lipids, and nucleotides/nucleic acids) are examined in detail, along with membrane transport and signal transduction. Selected topics in DNA and RNA metabolism, and gene expression are covered.

Prerequisite(s): BCH 4033 or BCH 4033C

Corequisite(s): BCH 4034L

BCH 4034L - Advanced Biochemistry II Lab (1 Credits)

This is the laboratory portion of Advanced Biochemistry II (BCH 4034). Students will learn techniques used in experimental biochemistry and molecular biology.

Prerequisite(s): BCH 4033L or BCH 4033C

Corequisite(s): BCH 4034