

# Biological Chemistry (BIOCHEM)

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## Courses

**BIOCHEM 200A. Research in Biological Chemistry. 2-12 Units.**

Individual research under the supervision of a professor.

Repeatability: Unlimited as topics vary.

**BIOCHEM 200B. Research in Biological Chemistry. 2-12 Units.**

Individual research under the supervision of a professor.

Repeatability: Unlimited as topics vary.

**BIOCHEM 200C. Research in Biological Chemistry. 2-12 Units.**

Individual research under the supervision of a professor.

Repeatability: Unlimited as topics vary.

**BIOCHEM 200R. Research in Biological Chemistry for First-Year Students. 2-12 Units.**

Independent research within the laboratories of graduate training faculty in the Department of Biological Chemistry for first-year Ph.D. students.

Grading Option: Satisfactory/unsatisfactory only.

Repeatability: May be taken for credit 3 times.

**BIOCHEM 202A. Laboratory Seminar Series. 1 Unit.**

Study within a laboratory group including research and journal presentations.

Grading Option: Satisfactory/unsatisfactory only.

Repeatability: Unlimited as topics vary.

**BIOCHEM 202B. Laboratory Seminar Series. 1 Unit.**

Study within a laboratory group including research and journal presentations.

Grading Option: Satisfactory/unsatisfactory only.

Repeatability: Unlimited as topics vary.

**BIOCHEM 202C. Laboratory Seminar Series. 1 Unit.**

Study within a laboratory group including research and journal presentations.

Grading Option: Satisfactory/unsatisfactory only.

Repeatability: Unlimited as topics vary.

**BIOCHEM 207. Current Topics in Cancer Genomics. 4 Units.**

Literature-based discussion of molecular principles in genetics and functional genomics, with focus on cancer and stem cell biology.

Repeatability: May be taken for credit 2 times.

**BIOCHEM 210A. Medical Biochemistry and Molecular Biology. 12 Units.**

Covers the following topics from a biomedical perspective: protein and nucleic acid biochemistry, carbohydrates, lipids, amino acids, purines and pyrimidines, genome structure, molecular mechanisms of development, and signal transduction.

Restriction: Graduate students only.

**BIOCHEM 225. Epigenetics in Health and Disease . 4 Units.**

Focuses on the role of chromatin/nuclear structure organization (histone and DNA modification, chromatin remodeling, higher order chromatin structure and nuclear organization) on gene regulation, DNA replication and repair, relevant to development, metabolism, learning and memory, and human disease.

Prerequisite: MOL BIO 203 or MOL BIO 204 or NEURBIO 206. MOL BIO 203 with a grade of B- or better. MOL BIO 204 with a grade of B- or better. NEURBIO 206 with a grade of B- or better

Same as NEURBIO 230.

Restriction: Graduate students only.

**BIOCHEM 281. Fundamentals of Informatics for Biologists. 4 Units.**

Students learn the fundamentals of bioinformatics and the unix operating system.

Same as ECO EVO 282.

Restriction: Graduate students only.

**BIOCHEM 291. Research Seminar. 2 Units.**

Student research-based colloquium covering current topics in gene organization and expression, cell cycle and differentiation, DNA repair, checkpoint control, and the physical, chemical, and biological properties of macromolecules. Students are encouraged to read critically and analyze recent literature.

Grading Option: Satisfactory/unsatisfactory only.

Repeatability: May be repeated for credit unlimited times.

Restriction: Graduate students only.

**BIOCHEM 292A. Scientific Communication. 2 Units.**

Small group meetings for graduate students to practice scientific writing, debate, and presentation skills.

Grading Option: Satisfactory/unsatisfactory only.

Repeatability: May be repeated for credit unlimited times.

**BIOCHEM 292B. Scientific Communication. 2 Units.**

Small group meetings for graduate students to practice scientific writing, debate, and presentation skills.

Grading Option: Satisfactory/unsatisfactory only.

Repeatability: May be repeated for credit unlimited times.

**BIOCHEM 292C. Scientific Communication. 2 Units.**

Small group meetings for graduate students to practice scientific writing, debate, and presentation skills.

Grading Option: Satisfactory/unsatisfactory only.

Repeatability: May be repeated for credit unlimited times.