BIOCHEMISTRY

Program Director: Annette Raigoza

This interdisciplinary major entails the study of the structure, synthesis, properties and regulation of biomolecules. Cellular, organ, and organismal processes are examined through the study of the complex molecular networks that comprise and regulate them. As such, biochemistry has strong components from the fields of both biology and chemistry. This major is especially appropriate for those who intend to pursue careers in any of the medical fields, graduate education in biochemistry, medical research or employment in the biotechnology industry.

Majors

- Biochemistry Major (https://catalog.csbsju.edu/catalog/academic-departments/biochemistry/biochemistry-major/)

Minor

(None)

BCHM 317 Biochemistry I (4 Credits)
Lecture and laboratory study of the chemical characteristics of biological molecules with emphasis on bioenergetics, enzymes, metabolic pathways and integration, biological signals and membrane receptors. (Enroll in BIOL 317 then notify registrar you would like it changed to BCHM 317) Fall or Spring.
Prerequisites: (BIOL 221 or BIOL 221Z) and (CHEM 125 or CHEM 125Z or HONR 210E) and (CHEM 250 or CHEM 250A) and CHEM 255 and (CHEM 201 or CHEM 201A) and (CHEM 202 or CHEM 202A) and CHEM 205
Corequisites: BCHM 317L
Equivalent courses: BIOL 317

BCHM 317L Laboratory (0 Credits)
Prerequisites: None
Corequisites: BCHM 317
Equivalent courses: BIOL 317L

BCHM 351 Laboratory Research (1-4 Credits)
Optional elective laboratory research done under the supervision of a faculty advisor. Emphasis on planning, conducting, and evaluating laboratory research. Students review the literature, write a final paper and give an oral presentation at the end of their senior year. Although students may register for the course in the Fall and/or Spring semesters of their senior year, they must select an advisor and sign a research contract in the beginning of their senior year. Fall and Spring.
Prerequisites: None

BCHM 371 Independent Study (1-4 Credits)
Supervised reading or research at the upper-division level. Permission of department chair and completion and/or concurrent registration of 12 credits within the department required. Consult department for applicability towards major requirements. Not available to first-year students.
Prerequisites: None

BCHM 375 Biochemistry Capstone (2 Credits)
Literature research done under the supervision of a faculty instructor. Required for all biochemistry majors. Students attend regular class meetings focusing on their literature research progress, literature review, and preparation of a final paper and oral presentation given at the end of their senior year. Spring senior year. Those students graduating in December should take the course in the Spring before their graduation. Those students graduating in December should take the course in the Spring before their graduation.
Prerequisites: (BCHM 317 (may be taken concurrently) or BIOL 317 (may be taken concurrently))
Restrictions: Students with the 2024-2025 Registration Cohort, 2025-2026 Registration Cohort or 2026-2027 Registration Cohort attributes may not enroll.
Attributes: Experiential Engagement (EX)

BCHM 397 Internship (1-16 Credits)
Completed Application for Internship Form REQUIRED. See Internship Office Web Page.
Prerequisites: None
Attributes: Experiential Engagement (EX)