

BS in Biochemistry

An interdepartmental B.S. biochemistry major is offered in the College of Arts and Sciences. The B.S. in biochemistry degree is managed by an interdepartmental committee composed of biochemists, bioorganic chemists, and molecular/cellular biologists. The committee administers the degree, monitors the academic program, provides research possibilities, and advises student majors. The director of the program is currently Linda J. Lowe-Krentz. Faculty in both Biological Sciences and Chemistry serve as advisors.

Majors should be declared in Biological Sciences.

College and university requirements for all majors (25 credit hours)

ENGL 1, 2	Composition and Literature (6)
	First Year Seminar (3)
	Social Sciences (8)
	Humanities (8)

Major Requirements

Collateral Science Requirements (at least 24)	
PHY 10, 12	General Physics I and Laboratory (5)
PHY 13, 22	General Physics II and Laboratory (4)
MATH 21, 22, 23	Calculus I, II, III (12) or
MATH 51, 52, 43	Survey of Calculus I, II (7), Linear Algebra (3) and a statistics course
CSE 12	Survey of Computer Science (3) or
ENGR 1	Engineering I (3)

Required Chemistry Courses (25)	
CHM 40, 41	Concepts, Models and Experiments I, II (8) or
CHM 30, 31	Introduction to Chemical Principles I, II (8)
CHM 110, 111, 112, 113	Organic Chemistry (8)
CHM 307	Inorganic Chemistry (3)
CHM 194	Physical Chemistry (3)
CHM 332	Analytical Chemistry (3)

Required Biological Sciences courses (25 minimum)	
BIOS 41, 42	Biology Core I: Cellular and Molecular (3) and Lab (1)
BIOS 115	Biology Core II: Genetics (3)
BIOS 371, 372	Elements of Biochemistry I (3), II (3),
BIOS 377	Biochemistry Lab (3)
	Advanced Laboratory* (4)
	Electives in Biological Sciences* (3 hours minimum)
	Technical Writing* (2 hours minimum)

*Chosen with the approval of adviser

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Model Pattern Roster

Freshman Year	BIOS 41 - Biology Core I: Cellular and Molecular (3) BIOS 42 - Biology Core I: Cellular and Molecular Laboratory (1) MATH 21, 22 - Calculus I, II (8) or MATH 51, 52 - Survey of Calculus I and II (7) CHM 40, 41 - Concepts, Models and Experiments I and II (8) Dept 90 College Seminar (3) ENGL 1,2 Composition and Literature (6) PHY 10, 12 General Physics I and Laboratory (5) or PHY 11, 12 Introductory Physics I and Laboratory (5)
Sophomore Year	BIOS 115 - Biology Core II: Genetics (3) BIOS 130 Biostatistics* CHM 110, 111, 112, 113 - Organic Chemistry and Laboratory (8) PHY 13, 22 - General Physics II and Lab (4) or PHY 21, 22 - Introductory Physics II and Laboratory (4) MATH 23 - Calculus III or MATH 43 - Linear Algebra (3) <i>*A statistics course from the MATH department could also fulfill the statistics requirement</i>
Junior Year	BIOS 371, 372 - Elements of Biochemistry I and II (6) BIOS 377 - Biochemistry Laboratory (3) CHM 194 Physical Chemistry for Biological Sciences (3) CHM 332 Analytical Chemistry (3) CSE 12 Survey of Computer Science (3) Technical Writing (2)
Senior Year	BIOS Advanced laboratory course(s) BIOS elective CHM 307 - Advanced Inorganic Chemistry (3)