

Biochemistry Bachelor of Science Checklist	Done	Need
Suggested First Year Courses:		
CHEM 111/117 GENERAL I		
MATH 118/119 or 121 CALCULUS I		
CHEM 112/118 GENERAL II		
MATH 122 CALCULUS II		
BIOL 190 PRINCIPLES OF BIOLOGY		
Suggested Second Year Courses:		
CHEM 221 ORGANIC I		
CHEM 222 ORGANIC II		
BIOL 210 CELL BIOLOGY		
CHEM 255: QUANTITATIVE CHEM ANALYSIS (1/2 unit)		
Required before taking Physical Chemistry (CHEM 331):		
One year of Calculus (MATH 118/119 or 121 and 122), as shown above AND:		
One year of Physics:		
Either PHYS 201 GENERAL I		
AND		
PHYS 202 GENERAL II (sequence starts in spring and is calculus based)		
OR		
PHYS 103 FUNDAMENTALS OF PHYSICS I		
AND		
PHYS 104 FUNDAMENTALS OF PHYSICS II (sequence starts in fall and is algebra based)		
Additional Required Courses:		
CHEM 331 PHYSICAL CHEMISTRY I		
CHEM 341 BIOCHEMISTRY I		
CHEM 342 BIOCHEMISTRY II		
BIOL 315 GENETICS		
Either BIOL 380 ADVANCED GENETICS or BIOL 400 MOLECULAR BIOLOGY		
One of these two options: a) One unit of research in BIOL or CHEM culminating in a formal paper and oral defense		

b) One additional unit of CHEM chosen from courses numbered 250 or higher		
CHEMISTRY ELECTIVE COURSES:		
CHEM 260 DESCRIPTIVE INORGANIC CHEMISTRY		
CHEM 270 ENVIRONMENTAL CHEMISTRY		
CHEM 299 SPECIAL TOPICS		
CHEM 332 PHYSICAL CHEMISTRY II		
CHEM 340 PHARMACEUTICAL CHEMISTRY		
CHEM 350 INSTRUMENTAL ANALYSIS		
CHEM 405 INDEPENDENT STUDY AND RESEARCH (1/2 unit)		
CHEM 406 INDEPENDENT STUDY (1 unit)		
CHEM 407 INDEPENDENT STUDY (1/2 unit)		
CHEM 420 ADVANCED ORGANIC CHEMISTRY		
CHEM 460 ADVANCED INORGANIC CHEMISTRY		
CHEM 495 HONORS PROJECT (1/2 unit)		
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CHEM 497 HONORS PROJECT (1/2 unit)		
CHEM 499 SPECIAL TOPICS		
All biochemistry majors are strongly encouraged to do research, either during the academic year or during the summer. Stipends may be available to support summer research.		
BIOL 380 and BIOL 400, as well as CHEM 260, 270, 420, and 460 are offered on an alternating year schedule. Students should work with their advisors in scheduling these courses as well as physics.		
Students planning graduate work may wish to strengthen their program of study by including a second semester of physical chemistry (CHEM 332), a semester of analytical chemistry (CHEM 350), and additional courses in cell or molecular biology.		