## **Biochemistry – Bachelors of Science degree checklist**

Note – this checklist does not include general education requirements. You will also need to take INQ/HNRS, language, and HHP courses.

Course	Units	Completed?
Suggested first year courses		
CHEM 111/117: General Chemistry 1 (fall)	1.0	
CHEM 112/118: General Chemistry 2 (spring)	1.0	
BIOL 190: Exploring Unity in Biology	1.0	

Suggested second year courses		
CHEM 221: Organic Chemistry 1 (fall)	1.0	
CHEM 222: Organic Chemistry 2 (spring)	1.0	
CHEM 255: Quantitative Analysis (fall)	0.5	

Additional courses for the first and second years*		
MATH 100: Precalculus (fall, if needed)	1.0	
MATH 121: Calculus 1 (fall and spring)	1.0	
MATH 122: Calculus 2 (fall and spring)	1.0	
INQ/HNRS 240 or STAT 210: Statistical Reasoning (fall and spring)**	1.0	
Two semesters of physics: either 103 and 104 or 201 and 202		
PHYS 103/201: Physics 1 (103: fall; 201: spring)	1.0	
PHYS 104/202: Physics 2 (104: spring; 202: fall)	1.0	

Additional required courses***		
Courses offered every year:		
CHEM 331: Thermodynamics and Kinetics (fall)	1.0	
CHEM 341: Biochemistry 1 (fall)	1.0	
CHEM 342: Biochemistry 2 (spring)	1.0	
BIOL 210: Cell Biology (spring)	1.0	
BIOL 315: Genetics* (fall)	1.0	
BIOL 380: Advanced Genetics or BIOL 400: Molecular Biology (spring)	1.0	
One additional unit from the following:		
BIOL or CHEM research (must include formal paper and oral presentation)	1.0	
OR		
Elective CHEM course (see options below)	1.0	

<sup>\*</sup>MATH 122 and two semesters of physics are prerequisites for CHEM 331

## Electives

CHEM 260: Descriptive Inorganic

CHEM 340: Pharmaceutical Chemistry

CHEM 270: Environmental Chemistry

CHEM 332: Quantum Mechanics

CHEM 460: Advanced Inorganic Chemistry

<sup>\*\*</sup>A statistics class is a prerequisite for BIOL 315

<sup>\*\*\*</sup>Earning a grade of C- or higher in CHEM 222 is a prerequisite for most 300- and 400-level CHEM courses

Special topics courses (CHEM 299, 399, or 499) may count as an elective with approval from the program coordinator.