Biochemistry and Molecular Biology – Chemistry Concentration
(Department of Biological Sciences and Department of Chemistry and Biochemistry)

Major Requirements

Core Courses	Credits	Semester Completed
[BIOL 160] Molecular and Cellular Biology	4	
[BIOL 260] Genetics and Development	3	
[BIOL 413] Molecular Biology	4	
[CHEM 105] General Chemistry I	4	
[CHEM 106] General Chemistry II	4	
[CHEM 309] Organic Chemistry I	4	
[CHEM 310] Organic Chemistry II	4	
[CHEM 410] Biochemistry I	4	
[CHEM 412] Biochemistry II	4	
[CHEM 495] Capstone: Natural Sciences	3	
[MATH 111] Calculus I	4	
One of the following:	3	
[PHIL 101] Problems in Philosophy (3)		
[PHIL 102] History of Philosophy (3)		
Chemistry Concentration		
[CHEM 221] Chemical Analysis I	4	
[CHEM 321] Chemical Analysis II	4	
[CHEM 390] Junior Chemistry Seminar	1	
[CHEM 490] Senior Chemistry Seminar	1	
One of the following:	3	
[CHEM 337] Physical Chemistry (3)		
[CHEM 409] Advanced Organic Chemistry (3)		
One *of the following:*	4	
[BIOL 381] Microbiology or [BIOL 382] Microbiology for Health Professions (4)		
[BIOL 412] Cell Biology (4)		
[BIOL 417] Molecular Genetics (4)		
One of the following:	3 or 4	
[MATH 112] Calculus II (4)		
[STAT 269] Introductory Statistics (3)		
[PHYS 211] General Physics I	4	
[PHYS 212] General Physics II	4	

All of the courses in this major are vital to our program. If you plan to study abroad, attend the Philadelphia campus, or graduate early, you must talk to your advisor early and make plans to take the required courses when they are offered. Directed study will not be offered for any lab courses, and will only be granted in extreme circumstances for non-lab courses.

General Education requirements on reverse side

Revised June 2008

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General Education Requirements

Courses	Credits	Semester Completed
First Year Seminar	3	_____
Oral Communications	3	_____
Created and Called for Community	3	_____
Mathematical Sciences ([MATH 111])	3 or 4	met by major
Laboratory Science ([BIOL 160] or [CHEM 105])	3 or 4	met by major
Science, Technology & the World		waived
Two of the following:	6	
Social Science (3 credits)		_____
European History (3 credits)		_____
United States History (3 credits)		_____
Literature	3	_____
Philosophy and Religion ([PHIL 101] or [PHIL 102])	3	met by major*
Arts	3	_____
Language/Cross Cultural		
First Semester of Language	3	_____
Second Semester of Language	3	_____
Third Semester of Language or Cross Cultural	3	_____
Non-Western Studies	2 or 3	_____
Bible	3	_____
Christian Beliefs	3	_____
Health and Physical Fitness		
Introduction to Wellness	2	_____
Activity Course	1	_____
One of the following:	3	
Ethics (3 credits)		_____
World Views (3 credits)		_____
Pluralism in Contemporary Society (3 credits)		_____
Writing Enriched Course		_____

SUMMARY OF DEGREE REQUIREMENTS

General Education	47-48*
Major Core Requirements	42
Concentration Requirements	28-29
Free Electives	4-6
Total	**123**

*Philosophy is not counted against the curricular parameters for the major.

Major requirements on reverse side