

Biochemistry

<https://ag.purdue.edu/oap/Pages/major.aspx>

120 credits required for graduation

Credits	Course number	Course Title
Departmental/Program Major Courses (114 credits)		
Required Major Courses (25 credits)		
2	BCHM 10000	Intro to Biochemistry
3	BCHM 22100	Analytical Biochemistry
2	BCHM 29000	Experimental Design Seminar
3	BCHM 36100	Molecules
2	BCHM 32200	Analytical Biochemistry II
1	BCHM 39000	Professional Development Seminar
3	BCHM 46200	Metabolism
3	BCHM 46300	Macromolecular Machines
2	BCHM 46500	Biochemistry of Life Processes
3	BCHM 49800	Research in Biochemistry
1	BCHM 49000	Undergraduate Seminar
Other Departmental /Program Course Requirements (89 credits) (See Advising Resources)		
0.5	AGR 10100	Introduction to the College of Agriculture and Purdue University
0.5	AGR 11500	Introduction to Biochemistry Academic Programs
	AGRY 32000 or	
3	BIOL 24100	Genetics
	AGRY 32100 or	
1 or 2	BIOL 24200	Genetics Lab
	BIOL 12100 or	
2 or 4	BIOL 11000	Biology I or Fundamentals of Biology I
	BIOL 13100 or	
3 or 4	BIOL 11100	Biology II or Fundamentals of Biology II
3	BIOL 23100	Biology III: Cell structure and Function
2	BIOL 23200	Laboratory in Biology III: Cell structure and Function
4	CHM 11500	General Chemistry (satisfies Science #1 for Core)
4	CHM 11600	General Chemistry (satisfies Science #2 for core)
3	CHM 25500	Organic Chemistry
1	CHM 25501	Organic Chemistry Laboratory
3	CHM 25600	Organic Chemistry
1	CHM 25601	Organic Chemistry Laboratory
4	CHM 37200	Physical Chemistry
3	MA 16010	Applied Calculus I (satisfies Quantitative Reasoning for core)
3	MA 16020	Applied Calculus II
4	PHYS 22000	General Physics
4	PHYS 22100	General Physics
3	STAT 30100	Elementary Statistical Methods
3	-----	<u>Economics Selective (satisfies Human Culture Behavioral/Social Science for core)</u>
3	-----	<u>UCC Humanities Selective (satisfies Human Cultures Humanities for core)</u>
3	-----	<u>Humanities or Social Science Selective</u>
3	-----	<u>Humanities or Social Science Selective</u>
3	-----	<u>Humanities or Social Science Selective</u>
3	-----	<u>Humanities or Social Science Selective (30000+ level)</u>
5 to 9	-----	Science Selective
		First-Year Composition (satisfies Written Communication for core) (satisfies Information Literacy for core)
4	ENGL 10600	Fundamentals of Speech or Science Writing and Presentation (satisfies Oral Communication for core)
	COM 11400 or	
3	COM 21700	Written or Oral Communication Selective
3	-----	
Electives (6 credits)		
6	-----	Elective

University Core Requirements:

Human Cultures Humanities: _____	Science, Technology, and Society: _____
Human Cultures Behavioral/Social Science: _____	Written Communication: _____
Information Literacy: _____	Oral Communication: _____
Science #1: _____	Quantitative Reasoning: _____
Science #2: _____	

120 semester credits required for Bachelor of Science degree.
2.0 GPA required for Bachelor of Science degree.

College of Agriculture & University Level Requirements:

2.0 GPA required for Bachelor of Science degree.
32 Upper division credits taken from Purdue
9 credits International Understanding: _____
3 credits Multicultural Awareness: _____
9 credits of Hum and/or Social Sciences outside the College of Agriculture: _____

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Credits	Course number	Course Title	Prerequisites	Credits	Course number	Course Title	Prerequisites
Fall 1st Year				Spring 1st Year			
0.5	AGR 10100	Introduction to the College of Agriculture and Purdue University		3 or 4*	BIOL 13100 or BIOL 11100	Biology II or Fundamentals of Biology II	BIOL 11000
0.5	AGR 11500	Introduction to Biochemistry Academic Programs		4	CHM 11600	General Chemistry	CHM 11500
2	BCHM 10000	Intro to Biochemistry		4	ENGL 10600	First-Year Composition	
2 or 4*	BIOL 12100 or BIOL 11000	Biology I or Fundamentals of Biology I		3	MA 16020	Applied Calculus II	MA 16010
4	CHM 11500	General Chemistry					
3	MA 16010	Applied Calculus I	ALEKS 75+				
3	-----	Humanities or Social Science Selective					
15				14			

Credits	Course number	Course Title	Prerequisites	Credits	Course number	Course Title	Prerequisites
Fall 2nd Year				Spring 2nd Year			
3	BCHM 22100	Analytical Biochemistry	CHM 11600	3	AGRY 32000 or BIOL 24100	Genetics	(BIOL 11000 or 12100) or (BIOL 23100, CHM 11600)
3	BIOL 23100	Biology III: Cell structure and Function	BIOL 11100 or 13100, CHM 11600	1 or 2*	AGRY 32100 or BIOL 24200	Genetics Lab	pre/co: AGRY 320 or BIOL 241
2	BIOL 23200	Laboratory in Biology III: Cell structure and Function	pre/co: BIOL 23100	2	BCHM 29000	Experimental Design Seminar	
3	CHM 25500	Organic Chemistry	CHM 11600	3	BCHM 36100	Molecules	CHM 25500, (BIOL 11000 or 12100)
1	CHM 25501	Organic Chemistry Laboratory	pre/co: CHM 25500	3	CHM 25600	Organic Chemistry	CHM 25500
3	STAT 30100	Elementary Statistical Methods		1	CHM 25601	Organic Chemistry Laboratory	CHM 25501, pre/co: CHM 25600
3	COM 11400 or COM 21700	Fundamentals of Speech or Science Writing and Presentation		3	COM 11400 or COM 21700	Fundamentals of Speech or Science Writing and Presentation	
15				16			

Credits	Course number	Course Title	Prerequisites	Credits	Course number	Course Title	Prerequisites
Fall 3rd Year				Spring 3rd Year			
2	BCHM 32200	Analytical Biochemistry II	BCHM 22100	1	BCHM 49800	Research in Biochemistry	BCHM 36100
1	BCHM 39000	Professional Development Seminar		4	PHYS 22100	General Physics	PHYS 22000
3	BCHM 46200	Metabolism	BCHM 36100	3	-----	Science Selective	
1	BCHM 49800	Research in Biochemistry	BCHM 36100	3	-----	Humanities or Social Science Selective	
4	PHYS 22000	General Physics		3	-----	Elective	
3	-----	UCC Humanities Selective					
14				14			

Credits	Course number	Course Title	Prerequisites	Credits	Course number	Course Title	Prerequisites
Fall 4th Year				Spring 4th Year			
3	BCHM 46300	Macromolecular Machines	BCHM 46200	2	BCHM 46500	Biochemistry of Life Processes	BCHM 46300
1	BCHM 49800	Research in Biochemistry	BCHM 36100	1	BCHM 49000	Undergraduate Seminar	BCHM 49800
3	-----	Economics Selective		4	CHM 37200	Physical Chemistry	MA 16010 or MA 16020
3*	-----	Science Selective		3*	-----	Science Selective	
3	-----	Written or Oral Communication Selective		3	-----	Humanities or Social Science Selective (30000+ level)	
3	-----	Humanities or Social Science Selective		3	-----	Elective	
16				16			

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The highlighted course is considered critical; timely progress toward the degree depends upon steady progress through each course in the plan of study, but this course, in particular, should be completed by the semester indicated.

Consultation with an advisor may result in an altered plan customized for an individual student.

Official and complete prerequisite lists are in the course catalog; the incomplete listing presented here regards this program and course sequencing.