

**Concord University**  
**BACHELOR OF SCIENCE - Biology**  
*Registrar's Office Official Document*

Name: \_\_\_\_\_

120 hours minimum for graduation with a 2.00 average overall

56 hours from a four-year institution

2022-2023 Catalog

Course	Title	CR	GR	QP
Written and Oral Communications (9 credit hours) Select one course from BGEN 205 or COMM 101				
ENGL 101	Composition & Rhetoric I	3		
ENGL 102	Composition & Rhetoric II	3		
COMM 101 or BGEN 205	Fundamentals of Speech or Fundamentals of Business Communication	3		
Literature and Humanities (6 credit hours) Select one (1) course from Literature and one (1) course from History and Philosophy. *May be repeated for 3 credit hours.				
	ENGL 203 or 204	3		
	HIST 101, 102, 203, 204, PHIL 101, 308, 316, or 361	3		
Fine Arts– (3 credit hours) Select one (1) course from the following:				
	ART 101, 103, 105, 106, 204, 205, 216, 303, 304, 308, MUS 101, *451, *453A, or THEA 102	3		
Social and Behavioral Sciences (9 credit hours) Select one (1) course from three different categories.				
	<b>Category 1 - Business and Professional Studies</b> BGEN 105, ECON 203, ECON 204, FIN 200, HSP 100 or SOWK 161	3		
	<b>Category 2 - Geography</b> GEOG 101 or 321	3		
	<b>Category 3 - Political Science</b> POSC 101, 104, or 202	3		
	<b>Category 4 - Psychology</b> PSY 101 or 200			
	<b>Category 5 – Sociology</b> SOC 101, 201, or 301			
Natural Sciences (7-8 credit hours) Select one (1) course from two different categories.				
BIOL 121	<b>Category 1-Biological Science</b> BIOL 101, 102, 121, or 122	4	See Major	
CHEM 101	<b>Category 2-Earth &amp; Space Science</b> GEOG 101, GEOG 140 or 150, GEOG 200, PHSC 104, or PHYS 105	3-4	See Major	
	<b>Category 3-Physical Science</b> CHEM 100, CHEM 101/111, PHSC 103, PHYS 101, or PHYS 201			
Mathematics (3 credit hours) Select one (1) Mathematics course numbered 100 or higher.				
MATH 105	Elementary Statistics	3	See Major	
Physical Wellness (2 credit hours) Select one or more courses listed below for a total of at least two hours.				
	H ED 120, 304, P ED 101M, 117 or 118	2-3		
Modern/Classical Language – (Optional 6 credit hours) Select two courses within the same Modern/Classical Language for substitution purposes.				
	May not substitute Modern Language for ENGL 101, ENGL 102, the 3 hour Mathematics requirement or the 4-hour lab science requirement.			

Biology Core (2.00 GPA required) 31-41 credit hours				
Biology (12-16 credit hours)				
BIOL 121	Foundations of Biology I **	4		
BIOL 122	Foundations of Biology II **	4		
BIOL 130	Freshmen Biology Seminar+	1		
BIOL 230	Sophomore Biology Seminar	1		
BIOL 455	Biology Capstone • May substitute BIOL 470 (3) & 471(3)	2 or 6		
Chemistry (8 credit hours)				
CHEM 101	General Chemistry I	3		
CHEM 111	General Chemistry Lab I	1		
CHEM 102	General Chemistry II	3		
CHEM 112	General Chemistry Lab II	1		
Mathematics (3-9 credit hours)				
MATH 105	Elementary Statistics • MATH 103/MATH 104/MATH 253 or equivalent proficiency may be required for physics)	3		
Physics (8 credit hours)				
PHYS 101 And PHYS 102 or PHYS 201 And PHYS 202	Introductory Physics And Intermediate Physics or University Physics w/ Calculus 1 And University Physics w/ Calculus 2	4		
		4		
Biology Cognate (11-12 credit hours)				
BIOL 201 or BIOL 369	Ecology and Field Methods (4) or Evolution (3)	3-4		
BIOL 202 or BIOL 301	Animals as Organisms or Plants as Organisms	4		
BIOL 302 or BIOL 401	Cell and Molecular Biology or Genetics	4		

**Students must select ONE of the concentrations on the following page**

*\*NOTE: The same course cannot be used in multiple categories for credit. N SC 325 may be used only once to fulfill major or minor credit. One (1) BIOL 101 or 102 may be used as Directed Electives. Students who have qualified for BIOL 121 credit previously are exempt from BIOL 130.*

*MATH 103 and/or MATH 104 are prerequisites to some required courses in the Biology (Molecular) major.*

**Concord University**  
**BACHELOR OF SCIENCE - Biology**  
*Registrar's Office Official Document*

Biomedical Sciences Emphasis (31-35 credit hours)				
BIOL 302 or BIOL 401	Cell and Molecular Biology* or Genetics*	4		
CHEM 331	Organic Chemistry I	4		
CHEM 341 and CHEM 347	Biochemistry and Biochemistry Lab	3 1		
	<b>Directed Electives (20 hours) *</b> <ul style="list-style-type: none"> <li>• 12 hours from BIOL (200 level or higher)</li> <li>• 8 hours from the following: BIOL, CHEM, GEOL, MATH (200 level or higher), CS, EXSS, PHYS (300 level or higher), H ED (303, 304, 305, or 415), HS (201 or 301), PHSC 219, PSY (221, 229, 302, 331, 335, 365, 377 or 432)</li> </ul>	3-4		
		3-4		
		3-4		
		3-4		
		4		
		4		

Pre-PA-PT Emphasis (31-35 credit hours)				
BIOL 329	Microbiology	4		
BIOL 335	Human Anatomy & Physiology I	4		
BIOL 336	Human Anatomy & Physiology II	4		
BIOL 350	Biology Shadowing/Internship	2		
	<b>Directed Electives (18 hours) *</b> <ul style="list-style-type: none"> <li>• Choose from the following: BIOL, CHEM, GEOL, MATH (200 level or higher), CS, EXSS, PHYS (300 level or higher), H ED (303, 304, 305, or 415), HS (201 or 301), PHSC 219, PSY (221, 229, 302, 331, 335, 365, 377 or 432)</li> </ul>			

*\*NOTE: The same course cannot be used in multiple categories for credit. N SC 325 may be used only once to fulfill major or minor credit. One (1) BIOL 101 or 102 may be used as Directed Electives. Students who have qualified for BIOL 121 credit previously are exempt from BIOL 130.*

**RESIDENCE CREDIT:**

36 hours at Concord  
16 of last 32 hours at Concord  
Note: In some degree programs, this is prior to entering professional training.  
9 hours in Major, Teaching Fields

**TOTAL MINIMUM REQUIRED CREDITS: 120**  
**GENERAL EDUCATION CREDITS: 39-41**  
**ELECTIVE CREDITS: 0-8**

Organismal and Field Emphasis (31-37credit hours)				
BIOL 201 or BIOL 202 or BIOL 301 or BIOL 369	Ecology and Field Methods* or Animals as Organisms* or Plants as Organisms or Evolution	3-4		
	<b>Choose 2 of the following courses:</b> <ul style="list-style-type: none"> <li>• BIOL 202, BIOL 231, BIOL 233, BIOL 265, BIOL 301, BIOL 315, or BIOL 329</li> </ul>	3-4		
		3-4		
	<b>Directed Electives (20 hours) *</b> 200 level or above <ul style="list-style-type: none"> <li>• 12 hours from BIOL (200 level or higher)</li> <li>• 8 hours from the following: BIOL, CHEM, GEOL, MATH (200 level or higher), CS, EXSS, PHYS (300 level or higher), H ED (303, 304, 305, or 415), HS (201 or 301), PHSC 219, PSY (221, 229, 302, 331, 335, 365, 377 or 432)</li> </ul>	3-4		
		3-4		
		3-4		
		3-4		
		3-4		
		3-4		

*NOTE: Students are recommended to take BIOL 202: Animals as Organisms; BIOL 301: Plants as organisms; and BIOL 329: Microbiology.*