

Associate of Science to Bachelor of Science in Biological Sciences (Genetics/Pre-Med Track)

Completion of the following curriculum will satisfy the requirements for the <u>Associate of Science</u> degree at Gateway Community and Technical College and leads to the <u>Bachelor of Science in Biological Sciences</u> <u>(Genetics/Pre-Med Track)</u> degree at Northern Kentucky University.

Degree requirement for GCTC:

1) completion of minimum 60 credit hours, 2) minimum cumulative GPA 2.0, 3) minimum of 15 credit hours earned at the institution awarding the degree, 4) cultural studies course, and 5) demonstration of computer/digital literacy.

Degree requirements for a Bachelor of Science in Biological Sciences:

A grade of C- or better must be earned in all biology courses that count toward completion of major requirements for the BS in Biological Sciences. The department has also identified a common core of support courses that must be completed with a C- or better by all biological science majors. <u>At least 45</u> <u>credit hours must be 300 level or above</u>. Students must meet the pre-requisites for each course. At least 20 percent of the total required hours must be taken at NKU.

GCTC AS TO NKU BS IN BIOLOGICAL SCIENCES (GENETICS/PRE-MED TRACK) CHECKLIST

Gateway Community and Technical College

Category I: General Education Core Requirements				
GCTC Course	Course or Category	Credits	NKU Course	\bigtriangledown
ENG 101	Writing I (WC)	3	ENG 101	
Gateway2NKU	Advanced Writing in Biology (WC)	3	BIO 291W	
COM 181	Basic Public Speaking (OC)	3	CMST 101	
PHI 110	Medical Ethics (AH)	3	PHI 220	
TBS XXX	Arts & Humanities Course (AH) – Heritage	3	TBD XXX	
SOC 101	Introduction to Sociology (SB)	3	SOC 100	
PSY 110	Introduction to Psychology (SB)	3	PSY 100	
BIO 114/115	Biology I / Biology laboratory I (NS)	4	BIO 150/150L	
BIO 116/117	Biology II / Biology Laboratory II (SL)	4	BIO 151/151L	
MAT 170	Brief Calculus with Applications (QR)	3	MAT 112	
STA 220	Statistics (QR)	3	STA 205	
	Subtotal General Education Courses			

TBS XXX means to be selected by GCTC student.

TBD XXX means to be determined by NKU based on course selected.

Category II: AS Requirements				
GCTC Course	Course or Category	Credits	NKU Course	\checkmark
CHE 170/175	General College Chemistry I / General College Chemistry Laboratory I	5	CHE120/120L	
CHE 180/185	General College Chemistry II / General College Chemistry Laboratory II	5	CHE121/121L	
Subtotal AA Requirement Courses		10		

Category III: Electives				
GCTC Course	Course or Category	Credits	NKU Course	\checkmark
CIT 105 *	Introduction to Computing*	3	BIS 101	
CHE 270/275	Organic Chemistry I / Organic Chem Lab I	5	CHE310/310L	
CHE 280/285	Organic Chemistry II / Organic Chem Lab II	5	CHE311/311L	
PHY 201/202	College Physics I / College Physics Lab I	5	PHY 211	
PHY 203/204	College Physics II / College Physics Lab II	5	PHY 213	
	Subtotal Elective Courses	23		
	Total Associate Degree Hours	68		

*If Fulfilling Digital Literacy Requirement in another way besides CIT 105 or OST 105, may need additional hours.

Northern Kentucky University

Category IV: Major Requirements for the BS in Biological Sciences (Genetics/Pre-Med Track)				
NKU Course	Course	Credits	GCTC Course	Taken at GCTC
BIO 150 AND	Introduction to Biology I AND	4	BIO 114/115	х
BIO 150 L	Introduction to Biology I Laboratory			
BIO 151 AND BIO 151L	Introduction to Biology II AND Introduction to Biology II Laboratory	4	BIO 116/117	х
BIO 155	Orientation to Biology	1		
BIO 291W	Advanced Writing in Biology	3	Gateway to NKU	х
BIO 304	General Ecology	3		X
BIO 349 AND	Genetics AND	5		
BIO 349 AND BIO 349L	Genetics Laboratory	4		
BIO 458	Evolution of Organisms	3		
BIO 491	Comprehensive Examination	0		
STA 205	Introduction to Statistical Methods	3	STA 220	Х
CHE 120 AND	General Chemistry I AND	4	CHE 170/175	x
CHE 120L	General Chemistry I Laboratory			~
CHE 121 AND	General Chemistry II AND	4	CHE 180/185	x
CHE 121L	General Chemistry I Laboratory			
PHY 211	General Physics with Laboratory I	5	PHY 201/202	Х
PHY 213	General Physics with Laboratory II	5	PHY 203/204	Х
TBS XXX ¹	Foreign Language Requirement ¹	0-6		
TBS XXX				
BIO 302 AND	General Microbiology AND	4		
BIO 302L	General Microbiology Laboratory			
BIO 400 AND	Advanced Molecular Biology AND			
BIO 400L OR	Advanced Molecular Biology Lab OR	3-4		
BIO 436	Advanced Biology of the Cell			
TBS XXX	Choose 2 courses from the			
TBS XXX	Cellular/Molecular/Genetics Track	6-8		
	(see catalog)			
CHE 482	Biochemistry I	3		
CHE 483	Biochemistry II	3		
CHE 310 AND	Organic Chemistry I AND	4	CHE 270/275	х
CHE 310L	Organic Chemistry I Laboratory			
CHE 311 AND CHE 311L	Organic Chemistry II AND Organic Chemistry II Laboratory	4	CHE 280/285	х
MAT 112	Applied Calculus	3	MAT 170	x
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Su	ubtotal Major Credit Hours Taken at NKU	30-39		

¹Foreign language requirement (0-6 credits): All biological science majors are required to complete the 102 level or higher of a foreign language. Students may satisfy this requirement by completing the appropriate two-course sequence in a foreign language, or via CLEP or AP exam equivalency.

Graduation from NKU requires that a student successfully complete a minimum of 120 hours in college-level coursework, 45 of which must be earned at the 300/400 level. Students should work closely with their NKU academic advisor to ensure all major/minor and graduation requirements are fulfilled.

Category V: Additional Requirements				
Subtotal Elective (300/400 level) Hours:	13-22			
Total Baccalaureate Degree Credit Hours:	120			

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