



## **TRANSFER PATHWAY GUIDE 2025-2026**

Associate in Science to  
Bachelor of Science in Chemistry (Biochemistry Track)

Recommended for: Professional School Programs

### ***Overview***

Completion of the following curriculum will satisfy the requirements for the Associate in Science (AS) degree at Gateway Community and Technical College (GCTC) and leads to the Bachelor of Science (BS) in Chemistry (Biochemistry Track) degree at Northern Kentucky University (NKU).

### ***Applying to the Gateway2NKU Program***

Students can apply to participate in the pathway program by completing the online application on the NKU transfer webpage. Students must be enrolled in at least six credit hours at Gateway, enrolled in an associate degree program, plan to transfer to NKU, and maintain a minimum 2.0 cumulative GPA at Gateway.

### ***Degree Requirements 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. Demonstration of digital literacy
5. College success requirement

Although Kentucky does not have a school of veterinary medicine, a limited number of students who are residents of Kentucky are selected to enter training in veterinary medicine at Auburn University in Auburn, Ala., and Tuskegee University in Tuskegee, Ala. It is sometimes possible to enter veterinary school with three years of study. However, because many more students apply to veterinary schools than are accepted, it is strongly advised that all pre-vet students plan their curricula in such a way that the addition of a fourth year of coursework will satisfy NKU's requirements for the bachelor's degree, usually in biological sciences or chemistry & biochemistry (this pathway is designed for the chemistry & biochemistry pathway). To design a four-year curriculum that fulfills the pre-veterinary requirements

and the requirements for a bachelor's degree, interested students should work closely with their advisors. Read more about [Pre-Veterinary requirements](#) in our catalog.

### ***Admission Requirements to NKU***

Students completing an associate degree with a cumulative GPA of 2.0 or higher will be accepted into NKU.

### ***Degree Requirements for NKU***

To earn a bachelor's degree at NKU, students must:

1. Complete a minimum of 120 credit hours
2. Complete at least 25% of the courses required at NKU
3. Complete the last 30 credit hours at NKU
4. Complete at least with at least 45 credit hours numbered 300 and above
5. Minimum 2.0 cumulative GPA across all coursework
6. Meet all requirements for the major
7. Completion of a minor, focus, or second major (if required by the major)

A minor is not required for this major.

Students may receive American Chemical Society (ACS) certification in the Bachelor of Science in Chemistry (Biochemistry Track) by selecting appropriate course options.

The biochemistry track is designed for students interested in both chemistry and biology. In particular, it is designed for those students who are interested in the chemistry of living organisms. It is well-suited for those who wish to pursue careers in biochemistry-related fields or for those students who wish to further their education in graduate school or professional school (medical, dental, veterinary, pharmacy, etc.).

### ***General Transfer Information***

Students must complete the online application to NKU. There is no application fee for students who are transferring from GCTC.

**KCTCS Scholars Award:** Students who are KY residents transferring directly from a KCTCS institution with at least 36 hours from that institution and minimum GPA of 3.0, were never enrolled as a degree-seeking student at NKU, and will be enrolled in at least 12 credit hours both fall and spring semester are eligible for a limited number of annual scholarships (fall and spring only). Students must gain admission to NKU by June 15 for fall and November 1 for spring to be eligible for a possible scholarship. Online accelerated programs are not eligible for the KCTCS Scholars Award.

Tuition and scholarship information specific to transfer students can be viewed on the NKU Adult & Transfer Center website.

## GCTC AS TO NKU BS IN CHEMISTRY (BIOCHEMISTRY TRACK) CHECKLIST

### Gateway Community and Technical College

#### Category 1: GCTC General Education Core Requirements

GCTC Course	Course or Category	Credits	NKU Course	Completed
ENG 101	Writing I (WC)	3	ENG 101	
ENG 102	Writing II (WC)	3	ENG 102	
TBS XXX	Oral Communication (OC)	3	TBD XXX	
TBS XXX	Arts & Humanities (AH) – Heritage	3	TBD XXX	
TBS XXX	Arts & Humanities (AH) – Humanities	3	TBD XXX	
TBS XXX	Social & Behavioral Sciences Course (SB)	3	TBD XXX	
TBS XXX	Social & Behavioral Sciences Course (SB)	3	TBD XXX	
CHE 170/175*	General College Chemistry I/Lab I (NS)	5	CHE 120/120L	
CHE 180/185*	General College Chemistry II/Lab II (SL)	5	CHE 121/121L	
MAT 171	Pre-Calculus (QR)	5	MAT 119	
MAT 175	Calculus I (QR)	5	MAT 129	
	<b>Subtotal General Education Core Courses</b>	<b>41</b>		

TBS XXX means to be selected by GCTC student.

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

For Social and Behavioral Sciences courses, two disciplines must be represented and different from those in the Arts and Humanities category.

\*Labs must be taken in person.

#### Category 2: GCTC AS Requirements

GCTC Course	Course or Category	Credits	NKU Course	Completed
BIO 114/115	Biology I	4	BIO 150/150L	
BIO 116/117	Biology II	4	BIO 151/151L	
	<b>Subtotal AS Requirement Courses</b>	<b>8</b>		

#### Category 3: GCTC Electives

GCTC Course	Course or Category	Credits	NKU Course	Completed
CIT 105 or OST 105*	Introduction to Computing or Introduction to Information Systems	3	INF 101	
FYE 105 or FYE 110	Achieving Academic Success or First Year Experience and Applications	3	UNV 100T	
MAT 185	Calculus II	5	MAT 229	
	<b>Subtotal Elective Courses</b>	<b>11</b>		
	<b>Total Associate Degree Hours</b>	<b>60</b>		

\*If completing digital literacy using other means (like FYE 110), additional credit hours will be required in order to fulfill elective requirements.

### Northern Kentucky University

#### Category 4: NKU Major Requirements for the BS in Chemistry – Biochemistry Track

NKU Course	Course	Credits	GCTC Course	Taken at GCTC
CHE 125	Introduction to Chemistry & Biochemistry	1		
CHE 120/120L	General Chemistry I with Lab	4	CHE 170/175	x
CHE 121/121L	General Chemistry II with Lab	4	CHE 180/185	x
CHE 310/310L	Organic Chemistry I with Lab	4	CHE 270/275	
CHE 311/311L	Organic Chemistry II with Lab	4	CHE 280/285	
CHE 340/340L	Analytical Chemistry with Lab	5		
CHE 360	Physical Chemistry I	3		
CHE 391W	Chemical Information and Writing	3		
CHE 400	Chemistry Seminar	1		
CHE 482/482L	Biochemistry I with Lab	4		
MAT 129	Calculus I	4	MAT 175	x
MAT 229	Calculus II	5	MAT 185	x
PHY 211	General Physics I with Lab	4	PHY 201/202	
PHY 213	General Physics II with Lab	4	PHY 203/204	

To receive ACS certification, CHE 320/320L Inorganic Chemistry with Lab must be selected from the list of options. Students may be required to take an online animal nutrition course for selected veterinary schools.

#### Category 5: NKU Major Track Requirements for the BS in Chemistry – Biochemistry Track

NKU Course	Course	Credits	GCTC Course	Taken at GCTC
CHE 300	Careers in Chemistry	1		
CHE 361/362L	Physical Chemistry II with Lab	5		
CHE 400	Chemistry Seminar	1		
CHE 483/483L	Biochemistry II with Lab	4		
BIO 150/150L	Introduction to Biology with Lab	4	BIO 114/115	x
BIO 151/151L	Introduction to Biology II with Lab	4	BIO 116/117	x
BIO 349/349L	Genetics with Lab	4		
Select at least two courses, one with a lab:	Select at least two courses from the following (7-9 credits). At least one of the courses must have an associated lab, which must also be taken			
BIO 302/302L	General Microbiology with Lab	4		
BIO 400/400L	Advanced Molecular Biology with Lab	4		
BIO 430/430L	Immunology with Lab	4		
BIO 436	Advanced Biology of the Cell	3		

NKU Course	Course	Credits	GCTC Course	Taken at GCTC
BIO 452	Cancer Genetics	3		
BIO 467	Endocrinology	3		
BIO 470/470L	Medical Microbiology with Lab	4		
BIO 475	Virology	3		
CHE 320/320L	Inorganic Chemistry with Lab	5		
CHE 350/350L	Instrumental Analysis with Lab	5		
	<b>Subtotal Major Credit Hours at NKU</b>	<b>54-57</b>		
	<b>Subtotal Major Credit Hours at GCTC</b>	<b>25</b>		
	<b>Total Major Credit Hours</b>	<b>79-81</b>		
	<b>Subtotal of Additional Credit Hours Completed at GCTC</b>	<b>35</b>		

**Category 6: Additional Requirements at NKU**

NKU Course	Course	Credits	GCTC Course	Taken at GCTC
	<b>Subtotal Elective Hours</b>	<b>6</b>		
	<b>Total Baccalaureate Degree Credit Hours</b>	<b>120</b>		

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