



TWO DEGREES, ONE PATH

TRANSFER PATHWAY GUIDE 2024-2025

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

Recommended for: Pre-Veterinary Medicine

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) cultural competence course, 5) demonstration of digital literacy, and 6) 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 complete a minimum of 120 credit hours with at least 45 credit hours numbered 300 and above. In addition, at least 25% of the credit hours required for the degree and the last 30 credit hours must be completed at NKU. Students must have an overall GPA of 2.0 and meet all prerequisites for courses and requirements for the major. In addition, students must have a minimum GPA of 2.0 across all major coursework and earn at least a C- in each course counted toward 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.

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 \$2,500 annual scholarships (\$1,250 per fall and spring). 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.

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 | |
| Taken at NKU | Chemical Information and Writing (WC) | 3 | CHE 391W | |
| 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 175 | Calculus I (QR) | 5 | MAT 129 | |
| MAT 185 | Calculus II (QR) | 5 | MAT 229 | |
| | Subtotal General Education Core Courses | 41 | | |

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.

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 | |
| | Subtotal AS Requirement Courses | 8 | | |

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 | BIS 101 | |
| FYE 105 | Achieving Academic Success | 3 | UNV 100T | |
| PHY 201/202 | College Physics I with Lab | 5 | PHY 211 | |
| | Subtotal Elective Courses | 11 | | |
| | Total Associate Degree Hours | 60 | | |

If completing digital literacy using other means, additional credit hours will be required in order to fulfill elective requirements.

Degree Requirement: One course must be selected from the KCTCS identified Cultural Competence course list in the KCTCS catalog.

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 300 | Careers in Chemistry | 1 | | |
| 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 361/362L | Physical Chemistry II with Lab | 5 | | |
| CHE 391W | Chemical Information and Writing | 3 | NKU Course | x |
| CHE 400 | Chemistry Seminar | 1 | | |
| CHE 482/482L | Biochemistry I with Lab | 4 | | |
| CHE 483/483L | Biochemistry II 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 | x |
| PHY 213 | General Physics II with Lab | 4 | PHY 203/204 | |
| BIO 150/150L | Introduction to Biology I 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 2 courses, one with 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 | | |
| BIO 452 | Cancer Genetics | 3 | | |
| BIO 455 | Scanning Electron Microscopy | 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 | | |
| | Subtotal Major Credit Hours at NKU | 47-49 | | |
| | Subtotal Major Credit Hours at GCTC | 32 | | |

| NKU Course | Course | Credits | GCTC Course | Taken at GCTC |
|------------|---------------------------------|--------------|-------------|---------------|
| | Total Major Credit Hours | 79-81 | | |

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: Additional Requirements at NKU

| NKU Course | Course | Credits | GCTC Course | Taken at GCTC |
|------------|--|--------------|-------------|---------------|
| | Subtotal Elective (300/400 level) Hours | 11-13 | | |
| | Total Baccalaureate Degree Credit Hours | 120 | | |

Updated April 2024