

Associate in Science in Chemistry at Tulsa Community College to Bachelor of Science in Chemistry Biochemistry Option at Northeastern State University

*61 Credit Hours at TCC + 60 Credit Hours at NSU = 121 Total Credit Hours

Transfer Map Catalog Year: 2024-2025

University Campus Locations:

Note to Students: Transfer maps provide a semester by semester guide to a university showing how TCC courses transfer to a specific bachelor's degree program. This transfer map is based on a full-time schedule and is just one example of how a student may successfully complete degree requirements for both programs. Students should work with a TCC advisor and the university to ensure they are on-time and on-track for transfer. Students are responsible for understanding the program/admission/transfer requirements for the university and for completing requirements in the official degree sheet for each major.

| TULSA COMMUNITY COLLEGE - SUMMER PRIOR TO SEMESTER ONE | | |
|--|-------------------------|--------------|
| TCC Course | NSU Course | Credit Hours |
| *MATH 1513 & 1613 <u>or</u> *MATH 1715 | (MATH 1714 Precalculus) | 5-6 |

^{*}See an academic advisor to learn more about Math placement testing. If a student does not test into MATH 2114, a combination of prerequisite MATH 1513 & 1613 or 1715 courses could be used as required prerequisites for MATH 2114

| TULSA COMMUNITY COLLEGE – SEMESTER ONE | | |
|---|--|--------------|
| TCC Course | NSU Course | Credit Hours |
| *CHEM 1315 General Chemistry I (L) | CHEM 1123 & 1131 - General Chemistry I and lab | 5 |
| ENGL 1113 Composition I | ENGL 1113 - English Composition I | 3 |
| **BIOL 1414 Biology I (Recommended Elective) | BIOL 1013 & BIOL 1011- Introductory Biology I and lab | 4 |
| POLS 1113 American Federal Government POLS 1113 - American Federal Government | | 3 |
| Semester Credit Hours at TCC: | | 15 |

^{*}Students must have completed MATH 1513 and MATH 1613 or MATH 1715 or have demonstrated math competencies at the pre-calculus level through test scores prior to the first semester to complete this degree within two years/within the number of hours listed in the agreement.

| TULSA COMMUNITY COLLEGE – SEMESTER TWO | | |
|---|--|--------------|
| TCC Course | NSU Course | Credit Hours |
| CHEM 1415 General Chemistry II (L) | CHEM 1223 & 1231 - General Chemistry II | 5 |
| *MATH 2114 Analytic Geometry and Calculus I (A) | MATH 2614 - Calculus I | 4 |
| ENGL 1213 Composition II | ENGL 1213 - English Composition II | 3 |
| Humanities Elective | Humanities or General Elective | 3 |
| Semester Credit Hours at TCC: | | 15 |

| TULSA COMMUNITY COLLEGE – SEMESTER THREE | | |
|--|--|--------------|
| TCC Course | NSU Course | Credit Hours |
| CHEM 2145 - Organic Chemistry I (L) <u>or</u> CHEM 3123 and CHEM 3131 Organic Chemistry I Concurrent Enrollment at NSU-BA* | CHEM 3123 and CHEM 3131 Organic Chemistry I | 5 |
| PHYS 2034 Physics I with Calculus (L) | PHYS 2115 - Engineering Physics I | 4 |
| MATH 2124 Analytic Geometry and Calculus II (A) | MATH 2624 - Calculus II | 4 |
| Humanities Elective | Humanities or General Elective | 3 |
| Semester Credit Hours at TCC: | | 16 |

| TULSA COMMUNITY COLLEGE – SEMESTER FOUR | | |
|--|---|--------------|
| TCC Course | NSU Course | Credit Hours |
| CHEM 2245 - Organic Chemistry II (L) or CHEM 3223 and 3231 Organic Chemistry II Concurrent Enrollment at NSU-BA* | CHEM 3223 and 3231 Organic Chemistry II | 5 |
| HIST 1483 U.S. History 1492 to the Civil War Era or HIST 1493 U.S. History - Civil War Era to the Present | HIST 1483 - American History to 1877 or HIST 1493 - American History since 1877 | 3 |
| PHYS 2124 - Physics II with Calculus (L) | PHYS 2215 - Engineering Physics II | 4 |
| General Education Required Elective | General Elective | 3 |
| Semester Credit Hours at TCC: | | 15 |

Notes: ^It is recommended that students take both semesters of organic chemistry at the same institution. To maximize the number of hours which transfer from TCC to NSU, we strongly recommend that students take Organic Chemistry at NSU.

Congratulations you have earned your Associate Degree from TCC! Time to celebrate!

| NORTHEASTERN STATE UNIVERSITY – SEMESTER FIVE | |
|--|--------------|
| NSU Course | Credit Hours |
| CHEM 3315 - Quantitative Analysis (Fall Class) | 5 |
| Biochemistry Elective | 4 |
| CHEM 4214 - Biochemistry | 4 |
| Upper Level General Elective | 3 |
| Semester Credit Hours at NSU: | 16 |

^{**} BIOL 1414 is not required by TCC AS in Chemistry but it is a requirement for NSU BS in Chemistry Biochemistry Option

| NORTHEASTERN STATE UNIVERSITY – SEMESTER SIX | |
|--|--------------|
| NSU Course | Credit Hours |
| BIOL 3124 - Cell Biology | 4 |
| CHEM 4221 - Biochemistry Laboratory | 1 |
| Upper Level General Elective | 3 |
| General Elective | 3 |
| General Elective | 3 |
| Semester Credit Hours at NSU: | 14 |

| NORTHEASTERN STATE UNIVERSITY – SEMESTER SEVEN | |
|--|---------------------|
| NSU Course | Credit Hours |
| CHEM 4723 - Advanced Biochemistry (Fall Class) | 3 |
| CHEM 4412 - Research in Chemistry I | 2 |
| CHEM 4523 - Chemical Thermodynamics (Fall Class) | 3 |
| CHEM 4531 - Experimental Physical Chemistry (Fall Class) | 1 |
| Upper Level General Elective | 3 |
| General Elective | 3 |
| Semester Credit Hours at NSU: | 15 |

| NORTHEASTERN STATE UNIVERSITY – SEMESTER EIGHT | | |
|--|--------------|--|
| NSU Course | Credit Hours | |
| Biochemistry Elective | 4 | |
| CHEM 4911 - Chemistry Seminar | 1 | |
| Upper Level General Elective | 3 | |
| General Elective | 3 | |
| General Elective | 3 | |
| General Elective | 1 | |
| Semester Credit Hours at NSU: | 15 | |

Congratulations you have earned your Bachelor's Degree from NSU! Time to celebrate!

TCC Milestones and Recommended Actions:

- Consider Summer Courses: Summer courses at TCC can help accelerate your time to transfer, and help you stay on track. Talk to your advisor about planning summer courses.
- **During or After Year One at TCC:** Consider a campus tour of Northeastern State University and connect with a NSU academic advisor, to ensure you are on track to transfer. Your TCC academic advisor can assist in planning these actions.
- **During Year Two at TCC:** During or right after semester three coursework, apply for admission at Northeastern State University as a transfer student (https://apply.nsuok.edu/).
- **Final Semester at TCC:** Congratulations you are about to earn your Associate Degree! Be sure to apply for graduation @ https://www.tulsacc.edu/student-resources/graduation.
- **Transcripts:** After your final semester, submit an official TCC transcript to NSU (www.tulsacc.edu/student-resources/student-records/requesting-and-submitting-transcripts).
- Reverse Transfer: Students who transfer to a university before completing an associate degree and who have earned at least 15 credit hours from TCC may be eligible to complete their TCC degree through Reverse Transfer. Email reversetransfer@tulsacc.edu to see if you qualify for a degree through the Reverse Transfer program (https://www.tulsacc.edu/student-resources/graduation/reverse-transfer).

Program Information and Recommended Actions - NSU:

- Courses in the major must be completed with a minimum grade of C.
- Students may receive an ACS certified Chemistry major with the Biochemistry option if they complete the following courses:
 - o CHEM 3413 Inorganic Chemistry
 - CHEM 4523 Chemical Thermodynamics
 - o CHEM 4531 Experimental Physical Chemistry
 - o PHYS 1214 General Physics II or PHYS 2215 Engineering Physics II

Baccalaureate Degree Information:

- Students must complete 60 of 120 credit hours from a university (four-year school), excluding physical education courses.
- 30 credit hours are required from NSU.
- 40 credit hours must be junior and senior (3000/4000) level courses.
- At least 18 hours or 50% of the major, whichever is greater, must be from NSU; half the major must be upper level (3000/4000).
- English proficient (ENGL 1113 Composition & ENGL 1213 Composition II) with a C or better.
- Computer proficient.

Learn More About Programs in this Pathway:

- TCC Chemistry A.S. program https://www.tulsacc.edu/academics/programs-courses/chemistry
- NSU Chemistry B.S. Biochemistry Option program https://catalog.nsuok.edu/preview program.php?catoid=34&poid=4445&returnto=2123

University Transfer Contact Information

University Transfer Office
Tulsa Community College
www.tulsacc.edu/transfer
Contact: tcc2university@tulsacc.edu

Transfer Student Services
Northeastern State University
https://www.nsuok.edu/Transfer
Contact: transfer2nsu@nsuok.edu

APPROVAL SIGNATURE PAGE

| Jody Buckholtz Jody Buckholtz (Jul 11, 2024 06:41 CDT) | |
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| Jody Buckholtz (Jul 11, 2024 06:41 CDT) | 07/11/2024 |
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| JessicalMartin | 07/11/2024 |
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| Dr. Jessica Martin, College Dean Northeastern State University | Date |
| Northeastern State University | |
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| Dr. Carla Swearingen | 07/12/2024 |
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| Dr. Carla Swearingen, Provost Northeastern State University | Date |
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| Dr. Brandon B. A. Miller | |
| Dr. Brandon B. A. Miller (Jul 9, 2024 13:29 CDT) | 07/09/2024 |
| Dr. Brandon Miller, Director University Transfer | Date |
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| Katie Johnson (Jul 9, 2024 19:59 CDT) | 07/09/2024 |
| Dr. Katie Johnson, Faculty Department Chair | Date |
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| Dr. Kristopher Copeland, Associate Vice President for Academic Affairs | Date |
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