

This guide is intended for students completing the Chemistry A.S. Transfer Pathway. Students who do not intend to complete the 60-credit program should contact Grace Koehn at grace-koehn@bethel.edu for course selection advice. All courses must be completed with a C or better to transfer. If planning to apply to graduate school, courses should be graded a B or better.

The table below lists the courses that have approved equivalencies at Bethel or fulfill requirements for the Chemistry B.A., Chemistry B.S., or Biochemistry B.A. majors and general graduation requirements. **Note: All labs must be done in person to transfer to Bethel.**

| 2101) 01 21001101111011 211 11 1110]010 0110 0110 0110 0110 01 | <u> </u> | receive and made be done in person to transfer to better |
|--|----------|--|
| Minnesota North College course | Credits | Bethel University course |
| CHEM 1521 General Chemistry I | 4 | CHE 113 and 113D General Chemistry I w/lab |
| CHEM 1522 General Chemistry II | 4 | CHE 214 and 215 General Chemistry II w/lab |
| CHEM 2311 Organic Chemistry I | 5 | CHE 224 and 225 Organic Chemistry I w/lab |
| CHEM 2312 Organic Chemistry II | 5 | CHE 226 and 227 Organic Chemistry II w/lab |
| MATH 1311 Calculus I | 5 | MAT 124M Calculus I |
| MATH 1312 Calculus II | 4 | MAT 125 Calculus II |
| PHYS 2261 General Physics I | 4 | PHY 292 and 292D General Physics I w/lab |
| PHYS 2262 General Physics II | 4 | PHY 296 and 297 General Physics II w/lab |
| Any additional courses required to complete A.S. degree | | |
| Total credits for A.S. degree | 60 | |

| Remaining major courses for Chemistry B.A. degree | Credits |
|---|---------|
| CHE 200 Laboratory Safety and Chemical Hygiene | 1 |
| CHE 312 & 313 Quantitative Analysis and Quantitative Analysis Lab | 4 |
| CHE 344 & 345 Thermodynamics, Kinetics, and Statistical Mechanics and Thermodynamics, Kinetics, and Statistical | 4 |
| Mechanics Lab | |
| CHE 395 Chemistry Seminar: Research and Professional Development | 1 |
| CHE 490 Chemistry Seminar: Research | 2 |
| CHE 494 Chemistry Seminar: Research Presentation | 1 |
| Choose electives at the 3XX or 4XX level | 12 |
| | |
| Total major specific credits | 25 |

| Remaining major courses for Chemistry B.S. degree (ACS certified major) | Credits |
|---|---------|
| CHE 200 Laboratory Safety and Chemical Hygiene | 1 |
| CHE 312 & 313 Quantitative Analysis and Quantitative Analysis Lab | 4 |
| CHE 320 & 321 Instrumental Analysis and Instrumental Analysis Lab | 4 |
| CHE 344 & 345 Thermodynamics, Kinetics, and Statistical Mechanics and Thermodynamics, Kinetics, and Statistical | 4 |
| Mechanics Lab | |
| CHE 348 & 349 Quantum Chemistry and Spectroscopy and Quantum Chemistry and Spectroscopy Lab | 4 |
| CHE 364 & 365 Advanced Inorganic Chemistry and Advanced Inorganic Chemistry Lab | 4 |
| CHE 388 & 389 Biochemistry I and Biochemistry I Lab | 4 |
| CHE 395 Chemistry Seminar: Research and Professional Development | 1 |
| CHE 490 Chemistry Seminar: Research | 2 |
| CHE 494 Chemistry Seminar: Research Presentation | 1 |
| Choose electives at the 3XX or 4XX level | 6 |
| MAT 222 Differential Equations or MAT 223 Multivariable Calculus | 3 |
| | |
| Total major specific credits | 38 |



| Remaining major courses for Biochemistry B.A. degree | Credits |
|--|---------|
| BIO 124 & 124D Integrative Biology: Genes, Cells, Change and Integrative Biology: Genes, Cells, Change Lab** | 4 |
| BIO 128 &128D Integrative Biology: Metabolism, Energy, Biodiversity and Integrative Biology: Metabolism, Energy, | 4 |
| Biodiversity Lab** | |
| CHE 200 Laboratory Safety and Chemical Hygiene | 1 |
| CHE 388 & 389 Biochemistry I and Biochemistry I Lab | 4 |
| CHE 395 Chemistry Seminar: Research and Professional Development | 1 |
| CHE 396 & 397 Biochemistry II and Biochemistry II Lab | 4 |
| CHE 490 Chemistry Seminar: Research | 2 |
| CHE 494 Chemistry Seminar: Research Presentation | 1 |
| Choose from any 3XX level applied health science, biology, chemistry, engineering, environmental science, | 12 |
| neuroscience, or physics courses from approved list | |
| **if not transferred from community college | |
| Total major specific credits | 25-32 |

| Remaining graduation requirements for Bethel degree | |
|---|--------|
| GES 130 Christianity & Western Culture | |
| Biblical Foundations course | 3 |
| Choose 2 Cultural Intelligence courses | 8 |
| Contemporary Christian Issue (P) | |
| | |
| Electives to reach 122 credits | Varies |
| Total credits for degree | 122+ |