



This guide is intended for students completing the Biology A.S. Transfer Pathway. Students who do not intend to complete the 60-credit program should contact Grace at [grace-koehn@bethel.edu](mailto: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 Biology B.A. or B.S. major and general graduation requirements.

| Anoka-Ramsey Community College course   | Credits | Bethel University course  |
|---|---------|---|
| BIOL 1106 & 1107 Principles of Biology I&II   | 8       | Meets BIO 124, 124D, 128 & 128D Integrative Biology sequence  |
| BIOL 2202 Genetics  | 4       | Meets molecular area choice BIO 332 & 333 Genetics & lab  |
| Choose one of the Restricted Biology Electives:<br>BIOL 2201 Microbiology<br>BIOL 2208 Cell Biology<br>BIOL 2209 General Ecology  | 4       | Meets :<br>Biology elective (BIO234 & 235 Microbiology & lab)<br>Biology elective (BIO354 & 355 Cell Biology & lab)<br>Environmental area choice (BIO330 & 331 Ecology & lab)   |
| Choose at least 14 credits from additional Math and Science Electives:<br>BIOL 1103 & 1133 Environmental Science & Lab<br>BIOL 2201 Microbiology<br>BIOL 2206 Animal Biology<br>BIOL 2207 Plant Biology<br>BIOL 2208 Cell Biology<br>BIOL 2209 General Ecology<br>CHEM 2061 Organic Chemistry I<br>CHEM 2062 Organic Chemistry II<br>MATH 1114 Introduction to Statistics<br>MATH 1400 Calculus I*<br>MATH 1401 Calculus II*<br>PHYS 1317 General Physics I*<br>PHYS 1318 General Physics II*<br>PHYS 1327 College Physics I*<br>PHYS 1328 College Physics II*<br>*recommended for Biology BS | 14      | Meets:<br>ENS 104 & 104D Environment & Humanity (only for ENS B.S.)<br>Biology elective (BIO234 & 235 Microbiology & lab)<br>Biology elective<br>Biology elective<br>Biology elective (BIO354 & 355 Cell Biology & lab)<br>Environmental area choice (BIO330 & 331 Ecology & lab)<br>CHE 224 & 225 Organic Chemistry I & lab<br>CHE 226 & 227 Organic Chemistry II & lab<br>MAT207M Statistical Analysis<br>MAT124M Calculus 1<br>MAT125 Calculus 2<br>PHY202 & 202D Introductory Physics I & lab<br>PHY206 & 207 Introductory Physics II & lab<br>PHY292 & 292D General Physics I & lab<br>PHY296 & 297 General Physics II & lab |
| Goal area 1 - ENGL 1120 <b>OR</b> ENGL 1121<br><b>AND</b> CMST 1110 <b>OR</b> CMST 2215 <b>OR</b> CMST 2220   | 7       | Meets GES 160 Inquiry Seminar requirement   |
| Goal area 2 – met by ENGL 1120 <b>OR</b> ENGL 1121  |         |   |
| Goal area 3- CHEM 1061 & 1062 Principles of Chemistry I & II  | 8       | Meets CHE 113 & 214 General Chemistry I & II and labs   |
| Goal area 4 – MATH 1200 (or higher) <b>AND</b> MATH course higher than 1200   | 7-10    | Meets Math (M) course requirement   |
| Goal area 5 – Choose course(s) totaling three (3) credits   | 3       | Meets Global Perspectives requirement   |
| Goal area 6 – Choose course(s) totaling three (3) credits   | 3       | Meets Personal Development requirement  |
| Total credits for A.S. degree   | 60      |   |

| Remaining major courses for Biology B.A. degree                      | Credits |
|--|---------|
| BIO 218 Biology in a Changing World                                  | 3       |
| BIO 399 Introduction to Research                                     | 1       |
| BIO 461 Internship in Biology <b>or</b> BIO 496/497 Biology Research | 2-3     |
| BIO 495 Biology Seminar  | 2       |
| BIO 499 Biology Symposium  | 0       |
| Biology organismic area course                                       | 4       |
| Biology environmental area course (fulfilled by BIOL 2209)           | 4       |
| Biology electives (depends on biology courses taken at ARCC)         | 12-16   |



|                              |       |
|------------------------------|-------|
| Total major specific credits | 30-33 |
|------------------------------|-------|

| Remaining major courses for Biology B.S. degree                      | Credits |
|--|---------|
| BIO 218 Biology in a Changing World                                  | 3       |
| BIO 399 Introduction to Research                                     | 1       |
| BIO 461 Internship in Biology <b>or</b> BIO 496/497 Biology Research | 2-3     |
| BIO 495 Biology Seminar  | 2       |
| BIO 499 Biology Symposium  | 0       |
| CHE 224, 225, 226 & 227 Organic Chemistry I & II with labs*          | 8       |
| Physics I & II elective*   | 8       |
| Biology environmental area course*                                   | 4       |
| Biology organismic area course                                       | 4       |
| Biology electives (depends on biology courses taken at ARCC)         | 12-16   |
| *Can be fulfilled as part of AS degree                               |         |
| Total major specific credits   | 37-43   |

| Remaining graduation requirements for B.A. or B.S. degree | Credits |
|---|---------|
| GES 130 Christianity Western Culture                      | 4       |
| Biblical Foundations course                               | 3       |
| Contemporary Christian Issue (P)                          | 3       |
| A or Q course (if MnTC is not completed)                  | 1-4     |
| G, U, or S course (if MnTC is not completed)              | 3-4     |
|   |         |
| Electives to reach 122 credits                            | Varies  |
| Total credits completed at Bethel University              | 62      |
| Total credits for B.A. or B.S. degree                     | 122     |

The table below lists the courses that have approved equivalencies at Bethel or fulfill requirements for the Biochemistry/Molecular Biology B.S. major and general graduation requirements.

| Anoka-Ramsey Community College course   | Credits | Bethel University course  |
|---|---------|---|
| BIOL 1106 & 1107 Principles of Biology I&II   | 8       | Meets BIO 124 & 128 Integrative Biology I & II  |
| BIOL 2202 Genetics  | 4       | Meets molecular area choice <i>BIO 332 Genetics</i>   |
| Choose for Restricted Biology Electives:<br>BIOL 2208 Cell Biology  | 4       | Meets BIO 354 & 355 Cell Biology  |
| Choose at least 14 credits from additional Math and Science Electives:<br>CHEM 2061 & 2062 Organic Chemistry I&II<br>PHYS 1317 & 1318 General Physics I&II <b>OR</b><br>PHYS 1327 & 1328 College Physics I&II<br><b>AND</b><br>MATH 1401 Calculus II*<br>*recommended | 15-17   | Meets:<br><br>CHE 224, 225, 226, & 227 Organic Chemistry I&II<br>PHY 202D, 206, & 207 Introductory Physics I&II<br>PHY 292D, 296, & 297 General Physics I&II<br><br>MAT 125 Calculus II |
| Goal area 1 - ENGL 1120 <b>OR</b> ENGL 1121<br><b>AND</b> CMST 1110 <b>OR</b> CMST 2215 <b>OR</b> CMST 2220   | 7       | Meets GES 160 Inquiry Seminar requirement   |
| Goal area 2 – met by ENGL 1120 <b>OR</b> ENGL 1121  |         |   |
| Goal area 3- CHEM 1061 & 1062 Principles of Chemistry I & II  | 8       | Meets CHE 113 & 214 General Chemistry I & II and labs   |
| Goal area 4 – MATH 1210 Precalculus & MATH 1400 Calculus I  | 10      | Meets Math (M) course requirement and major requirements  |



|   |    |  |
|---|----|--|
| Goal area 5 – Choose course(s) totaling three (3) credits | 3  | Meets Global Perspectives requirement  |
| Goal area 6 – Choose course(s) totaling three (3) credits | 3  | Meets Personal Development requirement |
| Total credits for A.S. degree                             | 60 |  |

| Remaining major courses for Biochemistry/Cellular Biology B.S. degree   | Credits |
|---|---------|
| BIO or CHE 388 & 389 Biochemistry I & Lab                               | 4       |
| BIO 396 & 397 Molecular Biology & Lab                                   | 4       |
| CHE 200 Laboratory Safety and Chemical Hygiene                          | 1       |
| CHE 224, 225, 226, & 227 Organic Chemistry I&II (if not taken at ARCC)  | 8       |
| Physics Sequence (if not taken at ARCC)                                 | 8       |
| CHE 396 & 397 Biochemistry II & Lab                                     | 4       |
| CHE 312 & 313 Quantitative Analysis & Lab                               | 4       |
| CHE 344 & 345 Thermodynamics, Kinetics, and Statistical Mechanics & Lab | 4       |
| Biology or Chemistry Capstone sequence                                  | 4-5     |
|   |         |
| Total major specific credits  | 36-38   |

| Remaining graduation requirements for Biochemistry/Molecular Biology degree | Credits |
|---|---------|
| GES 130 Christianity Western Culture  | 4       |
| Biblical Foundations course   | 3       |
| Contemporary Christian Issue (P)  | 3       |
| A or Q course (if MnTC is not completed)                                    | 1-4     |
| G, U, or S course (if MnTC is not completed)                                | 3-4     |
|   |         |
|   |         |
| Electives to reach 122 credits  | Varies  |
| Total credits completed at Bethel University                                | 62      |
| Total credits for B.S. degree   | 122     |