



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 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. Although not required, completing the MnTC prior to transfer is an option for students.

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.

MN State College course	Credits	Bethel University course
BIOL 1122 & 1123 General Biology I & II	8	Meets BIO 124 & 128 Integrative Biology I & II
BIOL 2240 Genetics	4	Meets cell and molecular area choice (BIO332 & 333 Genetics and Genetics Lab)
Complete one of the following courses: BIOL 2010 General Ecology BIOL 2220 General Microbiology	4	Meets: Environmental area choice (BIO330 & 331 Ecology and lab) Biology elective (BIO234 & 235 Microbiology and lab)
CHEM 1111 & 1112 General Chemistry I & II	10	CHE 113 & 214 General Chemistry I & II and labs
Goal area 1 - COMM 1120 Intro to Public Speaking AND ENGL 1101 College Writing	6	Meets GES 160 Inquiry Seminar requirement
Goal area 2 – fulfilled with MnTC		
Goal area 3- fulfilled by previous sciences		
Goal area 4 – select two MATH 1114 College Algebra AND MATH 1115 or higher	7-9	Meets Math (M) course requirement (Calculus or Statistics required for Biology B.S.)
One or more courses - ENGL 1205, ENGL 1210, ENGL 1215	3	
Goal area 5 – one course	3-4	Meets Global Perspectives requirement
Goal area 6 – one course	3-4	Meets Personal Development requirement
General Education w/MnTC goals	12	
If additional course required to reach 60 credits, BIOL courses recommended, or CHEM2224 & CHEM2225, or PHYS1401 & PHYS1402, or PHYS1411 & PHYS1412		Meets: Biology electives CHE224, 225, 226, & 227 Organic Chemistry I & II PHY202, 202D, 206, & 207 Introductory Physics I & II PHY292, 292D, 296, & 297 General Physics I & II
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 or 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 choice (fulfilled by BIOL2010)	4
Biology electives (depends on biology courses taken at MN State)	12-16
Total major specific credits	28-33



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 or 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 choice (fulfilled by BIO 2010)	4
CHE 224 & 226 Organic Chemistry I&II with labs (if not taken at MN State)	8
Physics I&II elective (if not taken at MN State)	8
Calculus or Statistics course (if not taken at MN State)	4
Biology electives (depends on biology courses taken at MN State)	12-16
Total major specific credits	44-53

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 course (if MnTC is not completed)	0-3
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 or Biochemistry B.A. and general graduation requirements.

MN State College course	Credits	Bethel University course
BIOL 1122 & 1123 General Biology I & II	8	Meets BIO 124 & 128 Integrative Biology I & II
BIOL 2240 Genetics	4	Meets BIO332 & 333 Genetics and Genetics Lab
Complete one of the following courses: BIOL 2010 General Ecology BIOL 2220 General Microbiology	4	
CHEM 1111 & 1112 General Chemistry I & II	10	CHE 113 & 214 General Chemistry I & II and labs
Goal area 1 - COMM 1120 Intro to Public Speaking AND ENGL 1101 College Writing	6	Meets GES 160 Inquiry Seminar requirement
Goal area 2 – fulfilled with MnTC		
Goal area 3- fulfilled by previous sciences		
Goal area 4 – select two MATH 1114 College Algebra AND MATH 1115 or higher (Calculus or Stats recommended for Biology B.S.)	7-9	Meets Math (M) course requirement
One or more courses - ENGL 1205, ENGL 1210, ENGL 1215	3	
Goal area 5 – one course	3-4	Meets Global Perspectives requirement
Goal area 6 – one course	3-4	Meets Personal Development requirement
General Education w/MnTC goals	12	
If additional courses required to reach 60 credits, CHEM2224 & CHEM2225, or PHYS1401 & PHYS1402, or PHYS1411 & PHYS1412		Meets: CHE224, 225, 226, & 227 Organic Chemistry I & II PHY202, 202D, 206, & 207 Introductory Physics I & II PHY292, 292D, 296, & 297 General Physics I & II
Total credits for A.S. degree	60	



Remaining major courses for Biochemistry/Molecular Biology B.S. degree	Credits
BIO 354 & 355 Cell Biology & 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 MN State)	8
Physics Sequence (if not taken at MN State)	8
CHE 388 & 389 Biochemistry I & Lab	4
CHE 396 & 397 Biochemistry II & Lab	4
CHE 312 & 313 Quantitative Analysis & Lab	4
CHE 344 & 345 Thermodynamics, Kinetics, and Statistical Mechanics & Lab	4
MAT 123M Pre-Calculus (if not taken at MN State)	3
MAT 124M Calculus I (if not taken at MN State)	4
MAT 125 Calculus II (if not taken at MN State)	4
Biology or Chemistry Capstone sequence	4-5
Total major specific credits	41-57

Remaining major courses for Biochemistry B.A. degree	Credits
CHE 200 Laboratory Safety and Chemical Hygiene	1
CHE 224, 225, 226, & 227 Organic Chemistry I&II (if not taken at MN State)	8
Physics Sequence (if not taken at MN State)	8
CHE 388 & 389 Biochemistry I & Lab	4
CHE 396 & 397 Biochemistry II & Lab	4
Chemistry Capstone sequence	4
300 level science courses	12
Total major specific credits	32-41

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 course (if MnTC is not completed)	0-3
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