



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.

Central Lakes College course	Credits	Bethel University course
BIOL 1431 & 1432 General Biology I & II	10	Meets BIO124 & 128 Integrative Biology sequence
BIOL 2420 Genetics	4	Meets molecular area choice, BIO332 & 333 Genetics & lab
CHEM 1424 & 1425 Chemical Principles I & II	10	Meets CHE113 & 214 General Chemistry I & II and labs
Choose one of the following Biology courses: BIOL 2415 General Ecology BIOL 2457 Microbiology	4	Meets : Environmental area choice, BIO330 & 331 Ecology & lab Biology elective, BIO234 & 235 Microbiology & lab
Recommended Electives: choose from following BIOL 1415 Environmental Biology  BIOL 2467 <b>and</b> 2468 Anatomy & Physiology I & II (both must be taken at the same school) CHEM 2472 & 2473 Organic Chemistry I & II (recommended for biology B.S. majors) PHYS 1401 & 1402 College Physics I & II (recommended for biology B.S. majors) GEOG 1430 Introduction to GIS MATH 1460 Intro to Statistics or 1461 Honors Intro to Stats (recommended for biology B.S.) <b>OR</b> MATH 1472 Precalculus and MATH 1477/1480 Calculus I (recommended for B.S.) Other listed CHEM, ESCI courses	16	Meets: ENS104 & 104D Environment & Humanity (only required for environmental science B.S.) Organismic area choice - BIO214 & 215 Human Anatomy & lab and biology elective - BIO215 & 217 Human Phys & lab CHE 224, 225, 226, & 227 Organic Chemistry I & II and labs (required in biology B.S. degree) PHY 202, 202D, 206 & 207 Introductory Physics I & II and labs (required in biology B.S. degree) GIS requirement for environmental science B.S. Mathematics requirement for biology B.S. degree - MAT 207M Statistical Analysis <b>OR</b> Mathematics requirement for biology B.S. degree - MAT123M Precalculus and MAT124M Calculus 1 Elective for degree completion
Goal area 1 - required COMM and ENGL course	7	Meets GES 160 Inquiry Seminar requirement
Goal area 2 – fulfilled with MnTC		
Goal area 3- fulfilled by required science courses		
Goal area 4 – MATH 1470 College Algebra	3	Meets Math (M) course requirement
Goal area 5 – one course	3	Meets Global Perspectives requirement
Goal area 6 – one course	3	Meets Personal Development requirement
Any additional courses required to complete A.S. degree		
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 (fulfilled by BIOL 2467 & 2468)	4
Biology environmental area course (fulfilled by BIOL 2415)	4
Biology electives (depends on biology courses taken at CLC)	8-16
Total major specific credits	26-32



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
CHE 224 & 226 Organic Chemistry I&II with labs (fulfilled by CHEM 2472 & 2473)	8
Physics I&II elective (fulfilled by PHYS 1401 & 1402)	8
Biology organismic area course (fulfilled by BIOL 2467 & 2468)	4
Biology environmental area course (fulfilled by BIOL 2415)	4
Biology electives (depends on biology courses taken at CLC)	8-16
Total major specific credits	34-49

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.

Central Lakes College course	Credits	Bethel University course
BIOL 1431 & 1432 General Biology I & II	10	Meets BIO 124 & 128 Integrative Biology I & II
BIOL 2420 Genetics	4	Meets molecular area choice BIO332 & 333 Genetics & lab
CHEM 1424 & 1425 Chemical Principles I & II	10	Meets CHE113 & 214 General Chemistry I & II and labs
Choose one of the following Biology courses: BIOL 2415 General Ecology BIOL 2457 Microbiology	4	Meets : General Elective General Elective
Recommended Electives: choose from the following CHEM 2472 & 2473 Organic Chemistry I & II PHYS 1401 & 1402 College Physics I & II MATH 1472 Pre-Calculus MATH 1477 Calculus I OR MATH 1480 Honors Calculus I	16	Meets: CHE224, 225, 226, & 227 Organic Chemistry I & II and labs PHY202, 202D, 206 & 207 Introductory Physics I & II and labs MAT 123 M Precalculus MAT 124 M Calculus I
Goal area 1 - required COMM and ENGL course	7	Meets GES 160 Inquiry Seminar requirement
Goal area 2 – fulfilled with MnTC		
Goal area 3- fulfilled by required science courses		
Goal area 4 – MATH 1470 College Algebra	3	Meets Math (M) course requirement
Goal area 5 – one course	3	Meets Global Perspectives requirement
Goal area 6 – one course	3	Meets Personal Development requirement
Any additional courses required to complete A.S.		
Total credits for A.S. degree	60	



<b>Remaining major courses for Biochemistry/Molecular Biology B.S. degree</b>	<b>Credits</b>
BIO or CHE 388 & 389 Biochemistry I & Lab	4
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 Century)	8
Physics Sequence (if not taken at Century)	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
MAT123, 124, & 125 Precalculus and Calculus I & II (courses not taken at Century)	4-12
Biology or Chemistry Capstone sequence	4-5
Total major specific credits	36-42

<b>Remaining graduation requirements for Biochemistry/Molecular Biology B.S.</b>	<b>Credits</b>
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