

Biology Transfer Pathway

for Ohio Community College students
transferring to Baldwin Wallace University

November 2022



This document outlines the [statewide Ohio Guaranteed Transfer Pathway \(OGTP\) in Biology](#) that has been designed to provide clarity and consistency for college courses transferring between Ohio 2-year and 4-year public institutions.

This same transfer pathway in biology is now approved for students transferring to Baldwin Wallace University, through a partnership between 11 Ohio community colleges and 14 private colleges called the [Ohio Consortium for Transfer Pathways to the Liberal Arts](#), and whose faculty and administration have collaborated to expand access and credit clarity for students transferring with an associate's degree from an Ohio community college to an Ohio private college or university.

Pages 1 & 2 of this document outline **community college courses that are approved statewide** for transfer credit toward the bachelor of science degree in biology at an approved 4-year institution. Pages 3-5 show how these courses transfer to Baldwin Wallace University to meet bachelor degree requirements.

COMMUNITY COLLEGE – ASSOCIATE DEGREE COURSEWORK – TOTAL 60-65 CREDITS GENERAL EDUCATION REQUIREMENTS/OHIO TRANSFER 36		Minimum Credit Hours
ENGLISH COMPOSITION AND ORAL COMMUNICATION:		3
Course 1:	Any OT36 approved First Writing course	3
MATHEMATICS, STATISTICS AND LOGIC		4-5
Course 1:	Calculus I ¹	4-5
ARTS AND HUMANITIES (Two courses from two different areas)		6
Course 1:	Any OT36 approved Arts and Humanities course	3
Course 2:	Any OT36 approved Arts and Humanities course	3
SOCIAL AND BEHAVIORAL SCIENCES (Two courses from two different areas)		6
Course 1:	Any OT36 approved Social and Behavioral Sciences course [Introduction to Psychology recommended for pre-medicine]	3
Course 2:	Any OT36 approved Social and Behavioral Sciences course [Introduction to Sociology (OSS021) recommended for pre-medicine]	3
NATURAL SCIENCES		8-10
Course 1:	General Chemistry I with lab	4-5
Course 2:	General Chemistry II with lab	4-5
ADDITIONAL CREDITS		10
Course 1:	Any OT36 approved Second Writing course	3
Course 2:	Up to 7 additional hours of OT36 approved courses ²	7
GENERAL EDUCATION/OHIO TRANSFER 36 TOTAL:		37-40

Advising Notes:

Where it indicates "Any OT36 approved," students should work closely with their advisors.

¹ A prerequisite, such as College Algebra, may be needed for a student to reach Calculus I. The math requirement may vary by institution, and students planning to pursue a Bachelor of Arts in Biology may only need Pre-Calculus. Check with your academic advisor and your receiving institution to determine the appropriate mathematics course.

² Due to the variability across institutions, students should work with their academic advisor to determine an appropriate program of study and appropriate amount of additional credits to satisfy the OT36.

COMMUNITY COLLEGE – ASSOCIATE DEGREE COURSEWORK – <i>Continued from page 1</i>		Minimum credit hours
PRE-MAJOR/BEGINNING MAJOR		
Course 1:	Biology I	4-5
Course 2:	Biology II	4-5
Course 3:	Calculus-based Physics I with lab or Algebra-based Physics I with lab or biology course ¹	4-5
PRE-MAJOR/BEGINNING MAJOR TOTAL:		12-15
OTHER REQUIREMENTS		
Courses 1 and 2:	Full-Year Sequence of Organic Chemistry with lab) ² [Not required but highly recommended for pre-medicine]	8-12
Electives:	General Electives as needed (May include FYE or Orientation course) ³	4-5
OTHER REQUIREMENTS TOTAL:		8-18
Advising Notes:		
<p>¹ The amount and type of physics (calculus or non-calculus-based) required in the biological sciences varies from institution to institution. Many institutions require at least one semester of physics, others none. If physics is not a program requirement, an appropriate biology course should be selected with the guidance of your academic advisor. Please consult with your academic advisor and your receiving institution within the first year of study to determine an appropriate course of study.</p> <p>² The statewide transfer guarantee applies to the full-year sequence. All non-sequence coursework will be reviewed on a course-by-course basis by the receiving institution for transfer and application to the major. Not all institutions require Organic Chemistry, although it may be required for students who are pre-medicine. Consult with your academic advisor and your receiving institution.</p> <p>³ Certain institutions may require two semesters or more of foreign language for Bachelor of Arts and Bachelor of Science degrees. If so, foreign language should be taken – check with your receiving institution.</p> <p>Additional recommended pre-major/major coursework may include courses in cell biology, microbiology, or genetics. Consult with your academic advisor and your receiving institution to determine an appropriate program of study.</p>		
Associate Degree		Total Credit Hours
ASSOCIATE DEGREE TOTAL:		60-65
SPECIAL NOTES		
<p>Students with plans of pursuing a pre-professional or graduate studies track in the future should work closely with their academic advisor and receiving institution starting in the first year of their program to adequately prepare themselves for those types of tracks. Some pre-professional degrees include pre-medicine, pre-veterinary, pre-law, and pre-dentistry.</p> <p>Students should check with individual institutions for their program admission requirements.</p> <p>Some bachelor-degree granting institutions require additional general education courses outside of the OT36 and students may be required to take these courses in their junior or senior year. Students will still be able to follow this pathway and complete their bachelor's degree in approximately 60 additional credit hours.</p>		



How Biology Pathway Courses Transfer to Baldwin Wallace University

A student transferring to Baldwin Wallace University with the associate of science degree and biology transfer pathway will receive a maximum transfer of 60 credits, placing them at junior standing. Baldwin Wallace University's A2BW program waives the BW general education requirements when a student completes 24 credits of OT36 approved coursework as part of their associate degree, including the equivalent of the OT36 Second Writing Course and an OT36 Mathematics course. All introductory major courses can be completed as part of the associate degree, through planning with a transfer advisor.

Students interested in transferring to Baldwin Wallace University should meet with an admission counselor regarding optimal course selection and admission requirements. The following table outlines how transfer credits from the biology transfer pathway and associate degree will be applied to the Bachelor of Science in Biology degree at Baldwin Wallace University.

BALDWIN WALLACE UNIVERSITY COURSE EQUIVALENCIES FROM THE ASSOCIATE DEGREE PATHWAY	Course Number	Credit Hours
GENERAL EDUCATION REQUIREMENTS/OHIO TRANSFER 36		
Any OT36 approved First Writing course	ENG 111	3
Any OT36 approved Second Writing course	ENG 131	3
Calculus I or Pre-Calculus	MTH 140/141	4-5
Any OT36 approved Arts and Humanities course	OT36 A&H Elective	3
Any OT36 approved Arts and Humanities course	OT36 A&H Elective	3
Any OT36 approved Social and Behavioral Sciences course (Introduction to Psychology recommended for pre-medicine)	Intro to PSY or OT36 S&BS Elective	3
Any OT36 approved Social and Behavioral Sciences course (Introduction to Sociology recommended for pre-medicine)	Intro to SOC or OT36 S&BS Elective	3
General Chemistry I with lab	CHM 111	4
General Chemistry II with lab	CHM 112/115	4
Up to 7 additional hours of OT36 approved courses	OT36 Electives	
PRE-MAJOR/BEGINNING MAJOR		
Biology I	BIO 121	4
Biology II	BIO 122	4
Calculus-based Physics I with lab or Algebra-based Physics I with lab or biology course	PHY 131/141 PHY 145	5
OTHER RECOMMENDATIONS		
Full-Year Sequence of Organic Chemistry with lab	CHM 251/255 CHM 252/256	3 + 0.5 3 + 1
Electives	OT36 Electives	4-5
TOTAL HOURS FROM ASSOCIATE DEGREE:		60-65

Advising Notes:

A maximum of 60 credits transfer to BW from two-year institutions with the associate degree.

This Transfer Pathway completes the Associate of Science degree, which must total at least 60 semester credits and includes 36 credits of the Ohio Transfer 36 (OT36), which are approved general education requirements. OT36 details can be found at <https://transfercredit.ohio.gov/initiatives-upd/ohio-transfer-36>.

Biology Transfer Pathway

Remaining Courses to Complete at
Baldwin Wallace University

This table outlines the remaining coursework required for the bachelor of science in biology degree at Baldwin Wallace University.

REMAINING COURSEWORK TO COMPLETE THE BACHELOR'S DEGREE AT BALDWIN WALLACE UNIVERSITY	Course Number	Credit Hours
INSTITUTIONAL DEGREE REQUIREMENTS		
Experiential Learning Requirement ¹	N/A	Varies
MAJOR REQUIREMENTS		
Genetics	BIO 211	4
Microbiology	BIO 212	4
General Zoology	BIO 221	3
General Botany	BIO 222	3
Sophomore Biology Seminar	BIO 263	1
One course from Structure & Function Biology Area *(BIO 330, 332, 333, 337, or 351)	BIO 3XX*	3-4
One course from Cellular and Molecular Biology Area *(BIO 314, 331, 336, or 341)	BIO 3XX*	4
One Course from Environmental Biology Area (*BIO 308, 309, 310, 311, 313, 322, ENV 305, GEO 315 or 316)	BIO 3XX*	4
Two approved BIO courses at the 300- or 400-level from major courses	BIO 3XX/4XX	8
Junior Biology Seminar (fall and spring)	BIO 363	0
Senior Biology Seminar (capstone seminar)	BIO 463	1
MINIMUM BW MAJOR REQUIREMENTS		35-36
OTHER BACHELOR DEGREE REQUIREMENTS²		
Geology minor		18
Chemistry minor ³		4-11.5
TOTAL REMAINING COURSEWORK TO COMPLETE BACHELOR'S DEGREE		60-65

Advising Notes:

¹The experiential learning requirement (EXP) is required for graduation and may be satisfied through EXP-designated courses, study abroad, internship, research, service-learning designated courses, or an approved individualized experience.

²All students must complete an academic minor or second major. Students typically choose an academic minor in chemistry or geology.

³The number of credit hours vary depending on whether the student has completed the organic chemistry sequence. The chemistry minor presents the best pathway to completion of the academic minor for those students seeking admission to medical school.

Sample Degree Map for Biology Transfer Pathway

Baldwin Wallace University



This sample degree map shows how students who transfer to Baldwin Wallace University with the biology transfer pathway can complete the bachelor's degree in four semesters.

THIRD YEAR			
SEMESTER 5		SEMESTER 6	
Course Name & Number	Credit Hours	Course Name & Number	Credit Hours
Genetics: BIO 211	4	General Zoology: BIO 222	3
General Botany: BIO 222	3	Microbiology: BIO 212	4
Biology Seminar: BIO 363	0	Sophomore Biology Seminar: BIO 263	1
Organic Chemistry I: CHM 251	3	Biology Seminar: BIO 363	0
Organic Chemistry Laboratory I: CHM 255	0.5	Organic Chemistry II: CHM 252	3
Physics for Scientists & Engineers I ¹	4	Organic Chemistry Laboratory II: CHM 256	1
Introduction to Physics Lab I ¹	1	Physics for Scientists & Engineers II ²	4
		Introduction to Physics Lab II ²	1
Total Semester Credit Hours	15.5	Total Semester Credit Hours	17

FOURTH YEAR			
SEMESTER 7		SEMESTER 8	
Course Name & Number	Credit Hours	Course Name & Number	Credit Hours
Biology Seminar: BIO 363	0	Biology Seminar: BIO 363	0
Biology subject area: Choose from list below ³	4	Biology subject area: Choose from list below ³	4
Biology elective ⁴	4	Biology subject area: Choose from list below ³	4
Environmental Chemistry: CHM 281	3	Biology Seminar: BIO 463	1
Environmental Chemistry Lab: CHM 285	1	Biology elective ⁴	4
Biochemistry: CHM 311	3	Experiential Learning Requirement	
Biochemistry Lab: CHM 335	1		
Total Semester Credit Hours	16	Total Semester Credit Hours	13

¹Students may also complete Applied College Physics I: PHY 145

²Students may also complete Applied College Physics II: PHY 146

³Subject areas include: Environmental (BIO 308, 309, 310, 311, 313, 322, ENV 305, GEO 315 or 316), Structure-Function (BIO 330, 332, 333, 337, or 351), and Cell-Molecular (BIO 314, 331, 336, or 341). One approved course from **each** area at the 300- or 400-level is required to complete the major.

⁴Electives include only those courses approved that satisfy the biology major