

Biology Transfer Pathway

for Ohio Community College students
transferring to Bluffton 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 Bluffton 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 Bluffton 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 (OSC008)	4-5
Course 2:	General Chemistry II with lab (OSC009)	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 Bluffton’s biology major requires Calculus I. 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. To complete the bachelor’s degree within two years at Bluffton, students need to transfer in 60 semester hours of credit. Students matriculating with fewer hours may take additional hours at Bluffton to complete the 124 hours required for graduation.

COMMUNITY COLLEGE – ASSOCIATE DEGREE COURSEWORK – <i>Continued from page 1</i>		Minimum credit hours
PRE-MAJOR/BEGINNING MAJOR		
Course 1:	Biology I (OSC003)	4-5
Course 2:	Biology II (OSC004)	4-5
Course 3:	Calculus-based Physics I with lab (OSC016) or Algebra-based Physics I with lab (OSC014) 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 (OSC010) ² [1 st semester is minimum requirement for biology major at Bluffton, but pre-med must complete the full year]	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 Two semesters of physics are required for the Bluffton biology major. Bluffton offers only calculus-based physics courses. A student may transfer in an algebra-based Physics I course to meet Bluffton’s requirement but will need to take the calculus-based Physics II course at Bluffton to complete the requirements if they have not already completed an approved Physics II course (OSC015 or OSC017). 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. 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. Bluffton’s biology major requires only one semester of Organic Chemistry. However, a second semester is recommended, and all students wishing to pursue pre-med must take a full year (two semesters) of organic chemistry.</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. Bluffton requires two semesters of a foreign language be taken in high school. If not, two semesters must be taken in college. These two semesters could also meet Bluffton’s general education cross-cultural requirement.</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 Bluffton University



The following table outlines how transfer credits from the biology transfer pathway and associate's degree will be applied to the bachelor's degree in Biology at Bluffton University. Students interested in transferring to Bluffton University should meet with an admission counselor regarding optimal course selection at the community college and admission requirements. Bluffton requires courses in History and a Fine Art (Art, Music, or Theater) as part of its general education requirements, so it is recommended that students use the OT36 Arts and Humanities electives in this area. Additionally, Bluffton University requires 3 credits of Oral Communication (i.e., Public Speaking) and 2 hours of Wellness which could be taken as elective credits in the associate degree program. Bluffton University requires only *one* Social and Behavioral course.

BLUFFTON 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 110	3
Any OT36 approved Second Writing course	ENG 110	3
Calculus I or Pre-Calculus	MAT 135 or MAT 114	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)	PSY 110 or OT36 S&BS Elective	3
Any OT36 approved Social and Behavioral Sciences course (Introduction to Sociology recommended for pre-medicine)	SOC 152 or OT36 S&BS Elective	3
General Chemistry I with lab	CEM 121	5
General Chemistry II with lab	CEM 122	5
Up to 7 additional hours of OT36 approved courses	OT36 Electives	7
PRE-MAJOR/BEGINNING MAJOR		
Biology I (OSC003)	BIO Elective	3-5
Biology II (OSC004)	BIO Elective	3-5
Calculus-based Physics I with lab	PHY 211 or PHY 212	5
OTHER RECOMMENDATIONS		
Full-Year Sequence of Organic Chemistry with lab	CEM 221	4
	CEM 222	4
Electives	OT36 Electives	
TOTAL HOURS FROM ASSOCIATE DEGREE:		60-65

Advising Notes:

Students transferring to Bluffton will find completion of the requirements easier if they complete the Physics I course and at least the first semester of Organic Chemistry. While the biology major requires only the first semester of Organic Chemistry, pre-meds must complete the full-year sequence. It is highly unlikely that a student could complete both biology and pre-med requirements at Bluffton if they have not taken both Physics I and the full-year sequence of Organic Chemistry prior to matriculating at Bluffton.

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
Bluffton University

This table outlines the remaining coursework required for the bachelor of science in biology degree at Bluffton University. A student transferring to Bluffton University with the associate of science degree and biology transfer pathway completed will receive maximum credit, placing them at or near junior standing with introductory coursework in the biology major completed. Students interested in transferring to Bluffton University should meet with an admission counselor regarding optimal course selection and admission requirements.

REMAINING COURSEWORK TO COMPLETE THE BACHELOR'S DEGREE AT BLUFFTON UNIVERSITY	Course Number	Credit Hours
INSTITUTIONAL DEGREE REQUIREMENTS		
Cross-cultural Experience	BENV300	3
Enduring Values Capstone	BENV400	2
MAJOR REQUIREMENTS		
Physics for Science/Engineering I (if not transferring in)	PHY211	5
Physics for Science/Engineering II (if not transferring in)	PHY212	5
Organic Chemistry I [plus CEM222 Organic II, if pre-med] (if not transferring in)	CEM221	4
Botany	BIO135	4
Invertebrate Zoology	BIO205	4
Human Anatomy & Physiology I	BIO230	4
Human Anatomy & Physiology II	BIO231	4
Microbiology	BIO301	4
Genetics	BIO303	4
Immunology	BIO315	3
General Ecology	BIO330	4
Cell Biology	BIO335	4
[Biochemistry, if pre-med]	CEM341	[3]
OTHER BACHELOR DEGREE REQUIREMENTS²		
Reading the Bible Competency	REL100 or HON120	3
Religious Understanding Competency	variable	3
Students must attend 30 Arts & Lecture events on campus		1
Electives		Varies
TOTAL REMAINING COURSEWORK TO COMPLETE BACHELOR'S DEGREE		60-65

Advising Notes:

A total of 124 hours minimum is required for graduation. For students completing only two years at Bluffton, this includes one hour of credit for attending 30 Arts & Lecture events. To complete the BA with two years at Bluffton, students need to transfer in 60 semester hours of credit. Students matriculating with fewer hours may take additional hours at Bluffton to complete the 124 hours required for graduation. A minor is not required. A statistics course is recommended but not required. Students may enroll in up to 17 hours per semester. Enrolling in over 17 hours in one semester requires special permission plus an overload fee.

Bluffton Enduring Values courses (BENV) prepare students to succeed in local and international contexts. At Bluffton University, the cross-cultural experience is a pivotal element of the general education curriculum, which strives to place each student in an ever-expanding context from individual identity to global citizen. Through personal interactions in diverse settings within and outside of the United States, from Appalachian Kentucky to Guatemala to the Czech Republic, students are challenged to examine what it means to be a responsible citizen in the global community and to develop an ethic of justice, service, and peacemaking.

Sample Degree Map for Biology Transfer Pathway

Bluffton University



This sample degree map shows how students who transfer to Bluffton 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
Reading the Bible Competency	3	BENV300 Cross-cultural Experience	3
BIO335 Cell Biology	4	BIO231 Human Anatomy & Physiology II	4
BIO303 Genetics	4	BIO135 Botany	4
BIO230 Human Anatomy & Physiology I	4	BIO205 Invertebrate Zoology	4
		Elective	1
Total Semester Credit Hours	15	Total Semester Credit Hours	16

FOURTH YEAR			
SEMESTER 7		SEMESTER 8	
Course Name & Number	Credit Hours	Course Name & Number	Credit Hours
Religious Understanding Competency	3	BENV400 Enduring Values Capstone	2
BIO330 General Ecology	4	BIO301 Microbiology	4
CEM221 Organic Chemistry I (if not transferring in)	4	PHY212 Physics for Science/Engineering 2 (if not transferring in)	5
PHY211 Physics for Science/Engineering 1 (if not transferring in)	5	BIO315 Immunology	3
		Electives	2
Total Semester Credit Hours	16	Total Semester Credit Hours	16