

Biology Transfer Pathway

for Ohio Community College students
transferring to Tiffin 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 Tiffin 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 Tiffin 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 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 (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 [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 Tiffin University



A student transferring to Tiffin 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. Most or all of the Tiffin University general education requirements can be completed as part of the associate degree, through planning with a transfer advisor. Students interested in transferring to Tiffin 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's degree will be applied to the Bachelor of Science in Biology degree at Tiffin University.

TIFFIN UNIVERSITY COURSE EQUIVALENCIES FROM THE ASSOCIATE DEGREE PATHWAY	Course Number	Credit Hours
GENERAL EDUCATION REQUIREMENTS/OHIO TRANSFER 36		
Rhetoric and Intro to Research Writing	ENG 141	3
Rhetoric and Academic Writing	ENG 142	3
Calculus I or Pre-Calculus	MAT 281 or MAT 275	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 101 or OT36 S&BS Elective	3
Any OT36 approved Social and Behavioral Sciences course (Introduction to Sociology (OSS021) recommended for pre-medicine)	SOC 101 or OT36 S&BS Elective	3
General Chemistry I with lab (OSC008)	CHM 131/131L	4
General Chemistry II with lab (OSC009)	CHM 132/132L	4
Up to 7 additional hours of OT36 approved courses	OT36 Electives	7
PRE-MAJOR/BEGINNING MAJOR		
Biology I (OSC003)	BIO 210/210L	4
Biology II (OSC004)	BIO 211/211L	4
Calculus-based Physics I with lab (OSC016) or Algebra-based Physics I with lab (OSC014) or biology course	PHY 211/211L	4
OTHER RECOMMENDATIONS		
Full-Year Sequence of Organic Chemistry with lab (OSC010) [Not required but highly recommended for pre-medicine]	CHM 331/331L CHM 332/332L	8
Electives	OT36 Electives	4-5
TOTAL HOURS FROM ASSOCIATE DEGREE:		60-65

Advising Notes:

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
Tiffin University

This table outlines the remaining coursework and degree requirements for the bachelor of science in biology degree at Tiffin University.

REMAINING COURSEWORK TO COMPLETE THE BACHELOR'S DEGREE AT TIFFIN UNIVERSITY	Course Number	Credit Hours
INSTITUTIONAL DEGREE REQUIREMENTS		
Connect	DEC 320	3
Impact and e-Portfolio	DEC 420/420L	4
Digital Literacy and Technology Readiness	CST 111	3
Introduction to Speech Communication	COM 130	3
Human Anatomy & Physiology I + Lab	BIO 311/ 311L	4
Human Anatomy & Physiology I + Lab	BIO 312/312L	4
Genetics + Lab	BIO 333/333L	4
Microbiology + Lab	BIO 373/373L	4
Cell and Molecular Biology + Lab	BIO 445/445L	4
Analytical Chemistry + Lab	CHM 281/281L	4
Organic Chemistry I + Lab	CHM 331/331L	4
Organic Chemistry II + Lab	CHM 332/332L	4
Biochemistry + Lab	CHM 411/411L	4
Inorganic Chemistry + Lab	CHM 435/435L	4
Physical Chemistry + Lab	CHM 450/450L	4
Instrumental Analysis + Lab	CHM 481/481L	4
Introduction to Forensic Science + Lab	FSC 115/115L	4
Evidence Law and Ethics	FSC215	3
Foundations of Healthy Living	NAT 130	3
General Physics I + Lab	PHY 211/PHY 211L	4
General Physics II + Lab	PHY 212/PHY 212L	4
OTHER BACHELOR DEGREE REQUIREMENTS		
Open Electives		Varies
TOTAL REMAINING COURSEWORK TO COMPLETE BACHELOR'S DEGREE		
		60-65

Advising Notes:

The 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.

COM 130 Introduction to Speech Communication, CST 111 Digital Literacy and Technology Readiness, and NAT 130 Foundations of Health Living are TU requirements-if a student comes in with comparable courses, they would count as OT36 approved humanities/electives, thus it's not included in the sample plan.

Sample Degree Map for Biology Transfer Pathway

Tiffin University



This sample degree map shows how students who transfer to Tiffin University with the biology transfer pathway can complete the bachelor's degree in four semesters and a summer internship.

THIRD YEAR			
SEMESTER 5		SEMESTER 6	
Course Name & Number	Credit Hours	Course Name & Number	Credit Hours
A&P I BIO 311/ 311L	4	A&P II BIO 312/ 312L	4
CHM 331/331L: Organic Chemistry I + Lab	4	BIO 373/373L: Microbiology + Lab	4
DEC 320: Connect	3	FSC 115/115L: Introduction to Forensic Science + L	4
BIO 333/333L: Genetics + Lab	4	CHM 332/332L: Organic Chemistry II + Lab	4
PHY 211/211L: General Physics I + Lab	4	PHY 212/212L: Physics II + Lab	4
Total Semester Credit Hours	19	Total Semester Credit Hours	20
SUMMER INTERNSHIP – 3 Credit Hours			
FOURTH YEAR			
SEMESTER 7		SEMESTER 8	
Course Name & Number	Credit Hours	Course Name & Number	Credit Hours
DEC 420/420L: Impact & e-Portfolio	4	BIO 445/445L: Cell and Molecular Biology + Lab	4
CHM 281/281L: Analytical Chemistry + Lab	4	CHM 450/450L: Physical Chemistry + Lab	4
CHM 435/435L: Inorganic Chemistry + Lab	4	CHM 481/481L: Instrumental Analysis + Lab	4
CHM 411/411L: Biochemistry + Lab	4	FSC 215: Evidence Law and Ethics	3
Total Semester Credit Hours	16	Total Semester Credit Hours	15