

Biology

Associate of Science

Effective beginning Academic Year 2019-20 (Last revised July 21, 2021)

GENERAL EDUCATION REQUIREMENTS/OHIO TRANSFER 36		Course Number	Credit Hours
ENGLISH COMPOSITION AND ORAL COMMUNICATION:			3-4
Course 1:	Any Ohio Transfer 36 approved First Writing (TME001) course	ENG 101 or ENG 101A	3-4
MATHEMATICS, STATISTICS, AND LOGIC:			5
Course 1:	Calculus I (TMM005) ¹	MAT 251	5
ARTS AND HUMANITIES:			6
+ Course 1:	Any Ohio Transfer 36 approved Arts and Humanities course	LIT 210, LIT 285, REL 105 ³	3
+ Course 2:	Any Ohio Transfer 36 approved Arts and Humanities course	ART 111, ART 112, MUS 101, or MUS 102 ³	3
SOCIAL AND BEHAVIORAL SCIENCES:			6
+ Course 1:	Any Ohio Transfer 36 approved Social and Behavioral Sciences course [Introduction to Psychology (OSS015) recommended for pre-medicine]	HST 111, HST 112, or POL 101 ³	3
+ Course 2:	Any Ohio Transfer 36 approved Social and Behavioral Sciences course [Introduction to Sociology (OSS021) recommended for pre-medicine]	PSY 110 or SOC 105	3
NATURAL SCIENCES:			10
Course 1:	General Chemistry I with lab (OSC008)	CHE 121 & CHE 131 (co-req)	5
Course 2:	General Chemistry II with lab (OSC009)	CHE 122 & CHE 132 (co-req)	5
ADDITIONAL CREDITS: ²			10-11
Course 1:	Any Ohio Transfer 36 approved Second Writing (TME002) course	ENG 102 or ENG 103	3
Courses:	Up to 7 additional hours of Ohio Transfer 36 approved courses	COMM 110 (required)	3
		PHY 151 or PHY 201	4-5
GENERAL EDUCATION/OHIO TRANSFER 36 TOTAL:			40-42
<p>Advising Notes:</p> <p>Where it indicates "Any Ohio Transfer 36 approved," students should work closely with their advisors.</p> <p>(+) indicates that the courses chosen should be from two different areas within that category.</p> <p>¹ A prerequisite, such as College Algebra (TMM001), may be needed for a student to reach Calculus I (TMM005). The math requirement may vary by institution, and students planning to pursue a Bachelor of Arts in Biology may only need Pre-Calculus (TMM002). Check with your academic advisor and your receiving institution to determine the appropriate mathematics course.</p> <p>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 Ohio Transfer 36.</p> <p>³ Other elective choices may be available. Please consult with an advisor.</p>			

SPECIAL NOTES

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 in order to adequately prepare themselves for those types of tracks. Some pre-professional degrees include pre-medicine, pre-veterinary, pre-law, and pre-dentistry.

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PRE-MAJOR/BEGINNING MAJOR		Course Number	Credit Hours
Course 1:	Biology I (OSC003)	BIO 131	5
Course 2:	Biology II (OSC004)	BIO 132	5
Course 3:	Calculus-based Physics I with lab (OSC016) or Algebra-based Physics I with lab (OSC014) or biology course ¹	PHY 201 or PHY 151	0 (counted as part of Ohio Transfer 36)
PRE-MAJOR/BEGINNING MAJOR TOTAL:			10
Advising Notes: 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.			

OTHER REQUIREMENTS		Course Number	Credit Hours
Courses 1 and 2:	Full-Year Sequence of Organic Chemistry with lab (OSC010) ¹ [Not required but highly recommended for pre-medicine]	CHE 201 & CHE 211 and CHE 202 & CHE 212	0-10
Graduation Requirements for Cincinnati State:	First Year Experience	FYE 100, FYE 105, or FYE 110	1-3
	Career Exploration Seminar	HUM 190	2
	Co-operative Education Experience	HUM 191, HUM 291, or HUM 296 ³	2
Electives:	General Electives as needed	Varies	0-8
OTHER REQUIREMENTS TOTAL:⁴			13-15

Advising Notes:

¹ 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.

² 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. 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.

³ Other elective choices may be available. Please consult with an advisor.

⁴ Cincinnati State requires a minimum of 64 hours to earn an Associate of Science degree.

ASSOCIATE DEGREE	Total Credit Hours
ASSOCIATE DEGREE TOTAL:	64-65

SPECIAL NOTES

For additional information, please contact:

Humanities and Science Division, Associate of Science Degree
(513) 569-1700

<https://www.cincinnati-state.edu/academics/degrees-and-certificates/associate-of-science>

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SPECIAL NOTES

Some bachelor-degree granting programs may be competitive and admission into the program is not guaranteed. Students should check with individual institutions for their program admission requirements.

Some bachelor-degree granting institutions require additional general education courses outside of the Ohio Transfer 36 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.

SAMPLE DEGREE MAP

FIRST YEAR

SEMESTER 1		SEMESTER 2	
Course Name & Number	Credit Hours	Course Name & Number	Credit Hours
FYE 100, FYE 105, or FYE 110 First Year Experience Course	1-3	ENG 102 English Composition 2: Contemporary Issues or ENG 103 English Composition 2: Writing about Literature	3
ENG 101 or ENG 101A English Composition 1	3-4	HUM 190 Career Exploration Seminar: Associate of Arts/Associate of Science	2
CHE 121 & CHE 131 General Chemistry 1 & Lab	5	CHE 122 & CHE 132 General Chemistry 2 & Lab	5
BIO 131 Biology 1	5	BIO 132 Biology 2	5
Ohio Transfer 36 Social and Behavioral Sciences Elective	3	Ohio Transfer 36 Arts and Humanities Elective	3
Total Semester 1 Credit Hours	17-19	Total Semester 2 Credit Hours	18

SECOND YEAR

SEMESTER 3		SEMESTER 4	
Course Name & Number	Credit Hours	Course Name & Number	Credit Hours
COMM 110 Public Speaking	3	CHE 202 & CHE 212 Organic Chemistry 2 & Lab or Elective	4-5
CHE 201 & CHE 211 Organic Chemistry 1 & Lab or Elective	4-5	PHY 151 Physics 1: Algebra and Trigonometry-Based or PHY 201 Physics 1: Calculus-Based	4-5
MAT 251 Calculus 1	5	Ohio Transfer 36 Arts and Humanities Elective	3
Ohio Transfer 36 Social and Behavioral Sciences Elective	3	Part Time Co-op	1
Part Time Co-op	1		
Total Semester 3 Credit Hours	16-17	Total Semester 4 Credit Hours	12-14