

Biology

Associate of Science

Effective beginning Academic Year 2023-24 (Last revised November 21, 2023)

GENERAL EDUCATION REQUIREMENTS/OHIO TRANSFER 36		Course Number	Credit Hours
ENGLISH COMPOSITION AND ORAL COMMUNICATION:			3
Course 1:	Any Ohio Transfer 36 approved First Writing (TME001) course	ENG 1101	3
MATHEMATICS, STATISTICS, AND LOGIC:			5
Course 1:	Calculus I (TMM005) ¹	MAT 2270	5
ARTS AND HUMANITIES:			6
+ Course 1:	Any Ohio Transfer 36 approved Arts and Humanities course	PHI 2206	3
+ Course 2:	Any Ohio Transfer 36 approved Arts and Humanities course	HUM 1125	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]	PSY 1100	3
+ Course 2:	Any Ohio Transfer 36 approved Social and Behavioral Sciences course [Introduction to Sociology (OSS021) recommended for pre-medicine]	SOC 1101	3
NATURAL SCIENCES:			10
Course 1:	General Chemistry I with lab (OSC008)	CHE 1211/1251	5
Course 2:	General Chemistry II with lab (OSC009)	CHE 1221/1261	5
ADDITIONAL CREDITS: ²			6
Course 1:	Any Ohio Transfer 36 approved Second Writing (TME002) course	ENG 1201	3
Courses:	Up to 7 additional hours of Ohio Transfer 36 approved courses	COM 2211	3
GENERAL EDUCATION/OHIO TRANSFER 36 TOTAL:			36

Advising Notes:

Where it indicates "Any Ohio Transfer 36 approved," students should work closely with their advisors.

(+) indicates that the courses chosen should be from two different areas within that category.

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). Students at Sinclair may also be able to take Calculus for the Life Sciences (MAT 2240). 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 OTM.

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 1171	5
Course 2:	Biology II (OSC004)	BIO 1272	5
Course 3:	Genetics (OSC028) or Calculus-based Physics I with lab (OSC016) or Algebra-based Physics I with lab (OSC014) or biology course ¹	BIO 2235, BIO 2225, PHY 2201, or PHY 1141	4-5
PRE-MAJOR/BEGINNING MAJOR TOTAL:			14-15
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 2111/2151 & CHE 2121/2161	--
Electives:	General Electives as needed (May include FYE or Orientation course) ²	SOC 2215	3
		BIO 2222	3
		BIO 2235	4
		MET 1131	1
		SCC 1101	1
OTHER REQUIREMENTS TOTAL:			12
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.			

ASSOCIATE DEGREE	Total Credit Hours
ASSOCIATE DEGREE TOTAL:	62-63

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.

SPECIAL NOTES

For more information, please contact:
Academic Advising
academicadvising@sinclair.edu
(937) 512-3700

SAMPLE DEGREE MAP

FIRST YEAR

SEMESTER 1		SEMESTER 2	
Course Name & Number	Credit Hours	Course Name & Number	Credit Hours
PSY 1100 General Psychology	3	CHE 1211/1251 General Chemistry I with Lab	5
ENG 1101 English Composition I	3	BIO 1272 Principles of Biology II	5
COM 2211 Effective Public Speaking	3	ENG 1201 English Composition II	3
BIO 1171 Principles of Biology I	5	SOC 1101 Introduction to Sociology	3
SCC 1101 First Year Experience	1		
Total Semester 1 Credit Hours	15	Total Semester 2 Credit Hours	16

SECOND YEAR

SEMESTER 3		SEMESTER 4	
Course Name & Number	Credit Hours	Course Name & Number	Credit Hours
BIO 2225 Ecology, PHY 1141 College Physics I, or PHY 2201/2207 General Physics I	4-5	BIO 2235/2236 Genetics with Lab	4
BIO 2222 Evolution	3	SOC 2215 Race & Ethnicity	3
CHE 1221/1261 General Chemistry II with Lab	5	PHI 2206 Introduction to Philosophy	3
MAT 2270 Calculus & Analytical Geometry I	5	HUM 1125 Introduction to the Humanities	3
		MET 1131 Personal Computer Applications for Engineering and Technology	1
Total Semester 3 Credit Hours	17-18	Total Semester 4 Credit Hours	14