

Biology Associate of Science

Effective beginning Academic Year 2023-24 (Last revised November 27, 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	ENG124	3
MATHEMATICS, STATISTICS, AND LOGIC:			4
Course 1:	Calculus I (TMM005) ¹	MTH223	4
ARTS AND HUMANITIES:			6
+ Course 1:	Any Ohio Transfer 36 approved Arts and Humanities course	AH Elective (see last page for list)	3
+ Course 2:	Any Ohio Transfer 36 approved Arts and Humanities course	AH Elective (see last page for list)	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]	PSY121	3
+ Course 2:	Any Ohio Transfer 36 approved Social and Behavioral Sciences course [Introduction to Sociology (OSS021) recommended for pre-medicine]	SOC121 or BUS122	3
NATURAL SCIENCES:			10
Course 1:	General Chemistry I with lab (OSC008)	CHM141	5
Course 2:	General Chemistry II with lab (OSC009)	CHM142	5
ADDITIONAL CREDITS: ²			9
Course 1:	Any Ohio Transfer 36 approved Second Writing (TME002) course	ENG221 or ENG231	3
Courses:	Up to 7 additional hours of Ohio Transfer 36 approved courses	COM121 or COM122	3
		SOC225	3
GENERAL EDUCATION/OHIO TRANSFER 36 TOTAL:			38
<p>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). 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 Ohio Transfer 36.</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)	BIO141	4
Course 2:	Biology II (OSC004)	BIO142	4
Course 3:	Genetics (OSC028) or Calculus-based Physics I with lab (OSC016) or Algebra-based Physics I with lab (OSC014) or biology course ¹	BIO200, BIO221, BIO241, or BIO242	4
PRE-MAJOR/BEGINNING MAJOR TOTAL:			12
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]	CHM241 and CHM242	0-10
Electives:	General Electives as needed (May include FYE or Orientation course) ²	SSC101	1
		SCI273	3
		If Organic Chemistry Not Taken, Choose One of the following groups: <ul style="list-style-type: none"> • PHY121 and PHY122 • CHM243, CHM 244, and MTH124 • CHM105, CHM205, and MTH124 	0-10
OTHER REQUIREMENTS TOTAL:			12-14
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:	62-64

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:
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www.starkstate.edu/academics/programs/biology

SAMPLE DEGREE MAP

FIRST YEAR

SEMESTER 1		SEMESTER 2	
Course Name & Number	Credit Hours	Course Name & Number	Credit Hours
SSC101 Student Success Seminar	1	BIO142 General Biology II	4
BIO141 General Biology I	4	CHM142 General Chemistry II	5
CHM141 General Chemistry I	5	ENG124 College Composition	3
MTH223 Analytic Geometry and Calculus I	4	Ohio Transfer 36 Arts and Humanities Elective	3
Ohio Transfer 36 Arts and Humanities Elective	3		
Total Semester 1 Credit Hours	17	Total Semester 2 Credit Hours	15

SECOND YEAR

SEMESTER 3		SEMESTER 4	
Course Name & Number	Credit Hours	Course Name & Number	Credit Hours
SOC225 Cultural Diversity	3	SCI273 Special Topics in Science	3
CHM241 Organic Chemistry I	5	CHM242 Organic Chemistry II	5
COM121 Effective Speaking or COM122 Interpersonal Communication	3	Ohio Transfer 36 Social and Behavioral Sciences Elective	3
ENG221 Technical Report Writing or ENG231 College Composition II	3	BIO200 Ecology, BIO221 Principles of Microbiology, BIO241 General Genetics, or BIO242 Cell and Molecular Biology	4
Ohio Transfer 36 Social and Behavioral Sciences Elective	3		
Total Semester 3 Credit Hours	17	Total Semester 4 Credit Hours	15

OHIO TRANSFER 36 ELECTIVES

Please work closely with your advisor when selecting courses.

ARTS AND HUMANITIES	Course Number	Credit Hours
British Literature: Med to 1785	ENG233	3
British Literature: 1785 to Present	ENG234	3
American Literature: Colonial to 1865	ENG236	3
American Literature: 1865 to Present	ENG237	3
Film Appreciation	ENG239	3
Women's Literature	ENG240	3
Major Modern Writers	ENG241	3
U.S. History I to 1877	HIS121	3
U.S. History II from 1877	HIS122	3
Ethics	PHL122	3