

## Biology Associate of Science

Effective beginning Academic Year 2019-20 (Last revised November 26, 2019)

GENERAL E	DUCATION REQUIREMENTS/OHIO TRANSFER 36	Course Number	Credit Hours
ENGLISH CC	MPOSITION AND ORAL COMMUNICATION:		3
Course 1:	Any Ohio Transfer 36 approved First Writing (TME001) course	ENG111	3
MATHEMATI	CS, STATISTICS, AND LOGIC:		5
Course 1:	Calculus I (TMM005) <sup>1</sup>	MTH213	5
ARTS AND H	IUMANITIES:		6
+ Course 1:	Any Ohio Transfer 36 approved Arts and Humanities course	Literature Elective (see last page for list)	3
+ Course 2:	Any Ohio Transfer 36 approved Arts and Humanities course	HUM221 or HUM230	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]	PSY110	3
+ Course 2:	Any Ohio Transfer 36 approved Social and Behavioral Sciences course [Introduction to Sociology (OSS021) recommended for pre-medicine]	SSC101	3
NATURAL SO	CIENCES:		10
Course 1:	General Chemistry I with lab (OSC008)	CHM201	5
Course 2:	General Chemistry II with lab (OSC009)	CHM202	5
ADDITIONA	L CREDITS: <sup>2</sup>		9
Course 1:	Any Ohio Transfer 36 approved Second Writing (TME002) course	ENG112	3
Courses:	Up to 7 additional hours of Ohio Transfer 36 approved courses	HUM209 or HUM210	3
		SBS Elective (see last page for list)	3
GENERAL ED	DUCATION/OHIO TRANSFER 36 TOTAL:		39

#### **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.
- <sup>1</sup> 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.

<sup>2</sup> 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.

### **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)	BIO201	4
Course 2:	Biology II (OSC004)	BIO202	4
Course 3:	Calculus-based Physics I with lab (OSC016) or Algebra-based Physics I with lab (OSC014) or biology course <sup>1</sup>	PHY251	4
PRE-MAJOR	/BEGINNING MAJOR TOTAL:		12

#### **Advising Notes:**

<sup>1</sup> 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 REQ	JIREMENTS	Course Number	Credit Hours
Courses 1 and 2:	Full-Year Sequence of Organic Chemistry with lab (OSC010) <sup>1</sup> [Not required but highly recommended for pre-medicine]	-	-
Electives:	General Electives as needed (May include FYE or Orientation course) <sup>2</sup>	BIO231, BIO257, or MTH214	4-5
		Social and Behavioral Sciences Elective (see last page for list)	3
		Arts and Humanties Elective (see last page for list)	3
OTHER REQ	JIREMENTS TOTAL:		10-11

### **Advising Notes:**

<sup>1</sup> 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.

<sup>2</sup> 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:	61-62

### **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.



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### **SPECIAL NOTES**

For more information, please contact:
NSCC Advising Center
advising@northweststate.edu
(419) 267-1390
www.northweststate.edu/academic-divisions/arts-sciences/

## SAMPLE DEGREE MAP

### **FIRST YEAR**

SEMESTER 1			
Course Name & Number	Credit Hours		
ENG111 Composition I	3		
MTH213 Calculus I	5		
CHM201 General Chemistry I	5		
SSC101 Sociology	3		
Total Semester 1 Credit Hours	16		

SEMESTER 2			
Course Name & Number	Credit Hours		
ENG112 Composition II	3		
PSY110 General Psychology	3		
CHM202 General Chemistry I	5		
HUM209 Humanities & Cultures: Ancient & Medieval Worlds or HUM210 Humanities & Cultures: Renaissance to Present	3		
HUM221 Music Appreciation or HUM230 Art Appreciation	3		
Total Semester 2 Credit Hours	17		

### **SECOND YEAR**

SEMESTER 3		
Course Name & Number	Credit Hours	
BIO201 General Biology I	4	
Literature Elective	3	
PHY251 Physics: Mechanics & Heat	4	
Ohio Transfer 36 Social and Behavioral Sciences Elective	3	
Total Semester 3 Credit Hours	14	

### **SEMESTER 4** Credit Course Name & Number Hours BIO202 General Biology II 4 Ohio Transfer 36 Social and Behavioral 3 Sciences Elective BIO231 Anatomy & Physiology I, 4-5 BIO257 Microbiology, or MTH214 Calculus II Ohio Transfer 36 Arts and Humanities Elective 3 **Total Semester 4 Credit Hours** 14-15



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## OHIO TRANSFER 36 AND GENERAL EDUCATION ELECTIVES

Please work closely with your advisor when selecting courses.

SOCIAL AND BEHAVIORAL SCIENCES	Course Number	Credit Hours
Macroeconomics	ECO211	3
Microeconomics	ECO212	3
World Geography	GEO110	3
Geography - U.S. & Canada	GEO210	3
U.S. History Pre-1876	HIS101	3
U.S. History Post-1876	HIS102	3
U.S. Since 1945	HIS203	3
The Modern World	HIS210	3
American Government	SSC120	3
Social Problems	HST240	3
Marriage and the Family	HST242	3
Abnormal Psychology	PSY210	3
Social Psychology	PSY220	3
Lifespan Development	PSY230	3
Comparative Government	SSC130	3
Cultural Diversity	SSC210	3

ARTS AND HUMANITIES	Course Number	Credit Hours
Humanities and Cultures: Ancient and Medieval Worlds	HUM209	3
Humanities and Cultures: Renaissance to Present	HUM210	3
Music Appreciation	HUM221	3
Art Appreciation	HUM230	3
Critical Thinking and Logic	PHI110	3
Introduction to Philosophy	PHI201	3
Ethics	PHI210	3
World Religions	PHI230	3

LITERATURE	Course Number	Credit Hours
Interpretation of Literature	ENG223	3
Introduction to Poetry	ENG240	3
Introduction to Fiction	ENG241	3
American Literature Through the Mid-19th Century	ENG250	3
American Literature Since the Mid-19th Century	ENG251	3
British Literature Through the 18th Century	ENG260	3
British Literature 19th Century to Present	ENG261	3