

## ASSOCIATE OF SCIENCE

# **BIOLOGY**

**2023-24 Catalog** 

Effective Summer 2023

**1270** 

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

### Arts and Sciences Division

# Biology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year			
FRESHMAN EXPERIENCE							
SSC101	Student Success Seminar^^	1	Take first semester				
ENGLISH COMPOSITION AND ORAL COMMUNICATION: 6 credit hours							
ENG124	College Composition <sup>^</sup> (required)	3	Co-ENG024 or Co-ENG011 or Proficiency				
ENG221	Technical Report Writing	3	ENG124				
ENG231	College Composition II	3	ENG124				
COM121	Effective Speaking	3					
COM122	Interpersonal Communication	3					
SOCIAL AND BEHAVIORAL SCIENCES: 6 credit hours across two disciplines							
PSY121	General Psychology^	3	IDS102 or Proficiency				
SOC121	Sociology^	3	IDS102 or Proficiency				
BUS122	Basic Economics^	3	IDS102 or Proficiency				
SOC225	Diversity in American Society (required)	3	IDS102 or Proficiency				
ARTS AND HUM	ANITIES: 6 credit hours across two disciplines						
ENG233	British Literature: Med to 1785	3	ENG124				
ENG234	British Literature: 1785 to Present	3	ENG124				
ENG236	American Literature: Colonial to 1865	3	ENG124				
ENG237	American Literature: 1865 to Present	3	ENG124				
HIS121	U.S. History I to 1877	3					
HIS122	U.S. History II from 1877	3					
PHL122	Ethics	3					
MATHEMATICS, STATISTICS AND LOGIC: 4 credit hours minimum							
MTH125	College Algebra^	4	MTH023 or Pre-Co-MTH025 or Proficiency				
MTH135	Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 or Proficiency				
MTH223	Analytic Geometry and Calculus I^*	4	MTH135 or (MTH125 and MTH130) or Proficiency				

<sup>^</sup> Based on SSC placement scores

 $<sup>^{\</sup>wedge\wedge}$  To promote student success, this course should be taken in the first semester.

<sup>\*</sup>Required for Ohio Guaranteed Transfer Pathways in biology.

NATURAL SCIENCES: 18 credit hours required							
BIO141	General Biology I (lab)	4					
BIO142	General Biology II (lab)▲+	4					
CHM141	General Chemistry I^ (lab) ▲	5	(CHM101 or Proficiency) or (MTH024 or MTH025 or Proficiency)				
CHM142	General Chemistry II (lab) ▲+	5	CHM141				
BIOLOGY CORE ELECTIVES: 4-8 credit hours minimum as needed to meet total credit hour requirement							
BIO200	Ecology (lab)▲-	4	BIO141 or BIO142				
BIO221	Principles of Microbiology (lab)	4	BIO122 or BIO123 or BIO127 or BIO141				
BIO241	General Genetics (lab)▲-	4	BIO141				
BIO242	Cell and Molecular Biology (lab) ▲+	4	BIO141				
CAPSTONE							
SCI273	Special Topics in Science	3	Sophomore in program				
CONCENTRATION ELECTIVES: Select additional courses to complete the total of 60 - 63 credit hours							
CHM241	Organic Chemistry I (lab)▲-	5	CHM142				
CHM242	Organic Chemistry II (lab) ▲+	5	CHM241				
CHM243	Biochemistry I▲-	3	CHM123 or CHM141				
CHM105	Introduction to Forensic Science (lab)	3					
CHM205	Forensic Chemistry (lab)	4	CHM123 or CHM141 or CHM105				
MTH124	Statistics^	3	MTH022 or Pre-Co-MTH024 or Proficiency				
PHY121	College Physics I with Algebra (lab)^	4	MTH135 or (MTH125 and MTH130) or Proficiency				
PHY122	College Physics II with Algebra (lab) ▲+	4	PHY121				
	TOTAL CREDIT HOURS (60 credits minimum)	60-63					

<sup>^</sup> Based on SSC placement scores

<sup>▲</sup> Because of strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

<sup>▲-</sup>Fall only courses. Please see your academic advisor for availability.

<sup>▲+</sup>Spring only courses. Please see your academic advisor for availability.

Effective Summer 2023

### PART-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for part-time associate degree students who plan to finish in eight semesters.

#### Elective Additional Credit

Self-selection of courses and not following the approved degree program could adversely affect graduation, transfer to a 4-year institution, and financial aid. Visit Transferology at <a href="http://www.transferology.com">http://www.transferology.com</a> to assist in developing a plan for transferring to another college or university. Students should select Ohio Transfer 36 approved and TAG approved courses.

### Bachelor's Degree

Bachelor's degree requirements and course transferability are controlled by the institution to which the student plans to transfer.

First Semester SSC101	Student Success Seminar^^	Credit Hours	Pre- and Co-requisites  Take first semester
BIO141 General Biology I (lab)  Mathematics, Statistics, and Logic Elective 4		4 <u>4-5</u>	Check for prerequisite
manemanes, statistics,	and Logic Licente	9-10	cheek for prerequisite
Second Semester		<i>,</i> 10	
BIO142	General Biology II (lab)▲+	4	
ENG124	College Composition <sup>(required)</sup>	<u>3</u>	Co-ENG024 or Co-ENG011 or Proficiency
Th:1 C 4		7	
Third Semester CHM141	General Chemistry I^ (lab) ▲	5	(CHM101 or Proficiency) or (MTH024 or MTH025 or Proficiency)
SOC225	Diversity in American Society (required)	<u>3</u>	IDS102 or Proficiency
		8	
Fourth Semester CHM142	General Chemistry II (lab)▲+	5	CHM141
English Composition and Oral Communication Elective <sup>1</sup>		5 <u>3</u> <b>8</b>	Check for prerequisite
Fifth Semester		4	
Biology Core Elective <sup>5</sup> Social and Behavioral Science Elective <sup>2</sup>		4	Check for prerequisite Check for prerequisite
Social and Benavioral Science Elective		$\frac{3}{7}$	Check for prerequisite
Sixth Semester Arts and Humanities Ele	nativa 3	3	Check for prerequisite
Concentration Elective <sup>6</sup>			Check for prerequisite  Check for prerequisite
		3-5 6-8	The second of th
Seventh Semester Concentration Group E	lective 6	3-5	Check for prerequisite
Arts and Humanities Elective <sup>3</sup>			Check for prerequisite
		<u>3</u> 6-8	• •
Eighth Semester  Riology Core Flective 5	OR Mathematics, Statistics and Logic Elective <sup>4</sup>	4	Check for prerequisite
Concentration Elective		3-5	Check for prerequisite
SCI273	Special Topics in Science	3	Sophomore in program
	TOTAL CREDITS	10-12 60-63	

<sup>^</sup> Based on SSC placement scores

<sup>^^</sup> To promote student success, this course should be taken in the first semester

<sup>▲</sup> Because of strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

<sup>&</sup>lt;sup>1</sup> English Composition and Oral Communication Electives: COM121, COM122, ENG221, ENG231

<sup>&</sup>lt;sup>2</sup> Social and Behavioral Science Electives: BUS122, PSY121, SOC121,

<sup>&</sup>lt;sup>3</sup> Arts and Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

<sup>&</sup>lt;sup>4</sup> Mathematics, Statistics and Logic Electives: MTH125 or MTH135 or MTH223

<sup>&</sup>lt;sup>5</sup> Biology Core Electives: BIO200, BIO221, BIO241, BIO242

<sup>&</sup>lt;sup>6</sup> Concentration Electives: CHM241, CHM242, CHM243, CHM105, CHM205, MTH124, PHY121 or PHY122

<sup>▲+</sup>Spring only courses. Please see your academic advisor for availability.