



ASSOCIATE OF SCIENCE

**PRE-MEDICAL PROFESSIONAL CONCENTRATION  
(Pre-Pharmacy, Pre-Medicine, Pre-Dentistry, Pre-Veterinary)**

*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.*

2021-22 Catalog

Effective Summer 2021

1280

Arts and Sciences Division

Biology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
<b>FRESHMAN EXPERIENCE</b>				
SSC101	Student Success Seminar^^	1	Take first semester	
<b>WRITTEN &amp; ORAL COMMUNICATION: 6 credit hours minimum</b>				
ENG124	College Composition^ (required)	3	Co-ENG024 or Co-ENG011 or Proficiency	
ENG231	College Composition II	3	ENG124	
COM121	Effective Speaking	3		
COM122	Interpersonal Communication	3		
<b>SOCIAL &amp; BEHAVIORAL SCIENCES: 6 credit hours minimum</b>				
BUS122	Basic Economics^	3	IDS102 or Proficiency	
PSY121	General Psychology^	3	IDS102 or Proficiency	
SOC121	Sociology^	3	IDS102 or Proficiency	
SOC225	Cultural Diversity (required)	3		
<b>ARTS &amp; HUMANITIES: 6 credit hours minimum</b>				
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 (recommended)	3		
<b>MATHEMATICS: 5 credit hours minimum</b>				
MTH135	Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement. (required)	5	MTH025 or Proficiency	
<b>NATURAL SCIENCES: 13 credit hours minimum (1 lab course required)</b>				
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)	
<b>GENERAL EDUCATION CREDIT TOTAL</b>		<b>37</b>		

^Based upon SSC placement score

^^To promote student success, this course should be taken in the first semester

▲ Because of the strong emphasis on science in this major, applicants must have successfully completed chemistry in high school. Students who did not complete chemistry in high school, or who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

▲+Spring only courses. Please see your academic advisor for availability.

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Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
<b>CONCENTRATION CORE</b>				
CHM142	General Chemistry II (lab)	5	CHM141	
CHM241	Organic Chemistry I (lab) ▲-	5	CHM142	
CHM242	Organic Chemistry II (lab) ▲+	5	CHM241	
MTH124	Statistics^	3	MTH022 <b>or</b> Pre-Co-MTH024 <b>or</b> Proficiency	
MTH223	Analytic Geometry – Calculus I^	4	MTH135 <b>or</b> (MTH125 and MTH130) <b>or</b> Proficiency	
<b>CONCENTRATION ELECTIVES – <i>Select additional courses to complete the total of 62 - 63 credit hours*</i></b>				
BIO121	Anatomy and Physiology I	4	BIO101 <b>or</b> Proficiency	
BIO122	Anatomy and Physiology II	4	BIO121 <b>or</b> BIO123	
BIO123	Principles of Human Structure and Function (lab)	5	BIO101 <b>or</b> Proficiency	
BIO221	Principles of Microbiology (lab)	4	BIO122 <b>or</b> BIO123 <b>or</b> BIO141	
BIO241	General Genetics (lab) ▲-	4	BIO141	
BIO242	Cell & Molecular Biology (lab) ▲+	4	BIO141	
CHM243	Biochemistry I ▲-	3	CHM141	
CHM244	Biochemistry II ▲+	3	CHM243	
PHY101	Principles of Physics (lab) ^	4	(MTH024 <b>or</b> MTH025 <b>or</b> Proficiency) <b>or</b> MTH105 <b>or</b> MTH107 <b>and</b> IDS102 <b>or</b> Proficiency	
PHY121	College Physics I with Algebra (lab)	4	MTH135 <b>or</b> (MTH125 and MTH130) <b>or</b> Proficiency	
PHY122	College Physics II with Algebra (lab) ▲*	4	PHY121	
SCI273	Special Topics in Science	3	<i>Sophomore in Program</i>	
<b>TOTAL CREDIT HOURS</b>		<b>62-63</b>		

^Based upon SSC placement score

\*Please obtain the complete list of entrance requirements for the professional medical school(s) to which you would like to apply and consult your academic advisor to determine what electives to take.

▲-Fall only courses. Please see your academic advisor for availability.

▲+Spring only courses. Please see your academic advisor for availability.

▲\*Summer only courses. Please see your academic advisory for availability.

### FULL-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 on the next page provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

#### 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 <http://www.transferology.com> to assist in developing a plan for transferring to another college or university. Students should select Ohio Transfer Module 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.

<u>First Semester</u>		<u>Credit Hours</u>	<u>Pre- and Co-requisites</u>
SSC101	Student Success Seminar <sup>^^</sup>	1	<i>Take first semester</i>
BIO141	General Biology I (lab)	4	
CHM141	General Chemistry I (lab) <sup>▲</sup>	5	(CHM101 <b>or</b> Proficiency) <b>or</b> (MTH024 <b>or</b> MTH025 <b>or</b> Proficiency)
MTH135	Precalculus <sup>^</sup> – <i>A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.</i>	<u>5</u>	MTH025 <b>or</b> Proficiency
		<b>15</b>	
<u>Second Semester</u>			
BIO142	General Biology II (lab) <sup>▲+</sup>	4	
CHM142	General Chemistry II (lab)	5	CHM141
ENG124	College Composition ( <b>required</b> )	3	Co-ENG024 <b>or</b> Co-ENG011 <b>or</b> Proficiency
<i>Arts &amp; Humanities Elective<sup>3</sup></i>		<u>3</u>	<i>Check for prerequisite</i>
		<b>15</b>	
<u>Third Semester (Summer)</u>			
SOC225	Cultural Diversity ( <b>required</b> )	3	
<i>Arts &amp; Humanities Elective<sup>3</sup></i>		<u>3</u>	<i>Check for prerequisite</i>
		<b>6</b>	
<u>Fourth Semester</u>			
CHM241	Organic Chemistry I (lab) <sup>▲-</sup>	5	CHM142
MTH223	Analytic Geometry – Calculus I <sup>^</sup>	4	MTH135 <b>or</b> (MTH125 and MTH130) <b>or</b> Proficiency
<i>Written and Oral Communication Elective<sup>1</sup></i>		<u>3</u>	<i>Check for prerequisite</i>
		<b>12</b>	
<u>Fifth Semester</u>			
CHM242	Organic Chemistry II (lab) <sup>▲+</sup>	5	CHM241
MTH124	Statistics <sup>^</sup>	3	MTH022 <b>or</b> Pre-Co-MTH024 <b>or</b> Proficiency
<i>Social and Behavioral Sciences Elective<sup>2</sup></i>		3	<i>Check for prerequisite</i>
<i>Concentration Elective<sup>4*</sup></i>		<u>3 - 4</u>	<i>Check for prerequisite</i>
		<b>14-15</b>	
	<b>TOTAL CREDITS</b>	<b>62-63</b>	

<sup>^</sup>Based upon SSC placement score

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

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

<sup>1</sup> Written & Oral Communication Elective: COM121, COM122, ENG231

<sup>2</sup> Social and Behavioral Sciences Electives: BUS122, PSY121, SOC121

<sup>3</sup> Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122 (*recommended*)

<sup>4</sup> Concentration Electives: BIO121, BIO122, BIO123, BIO221, BIO241, BIO242, CHM243, CHM244, PHY101, PHY121, SCI273

\* Please obtain the complete list of entrance requirements for the professional medical school(s) to which you would like to apply and consult your academic advisor to determine what electives to take.

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

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