



ASSOCIATE OF SCIENCE
ASSOCIATE OF SCIENCE – GENERAL

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

7106

Arts and Sciences Division

Physics Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
FRESHMAN EXPERIENCE				
SSC101	Student Success Seminar^^	1	<i>Take first semester</i>	
COMPUTER APPLICATIONS				
ITD122	Computer Applications for Professionals^ (required)	3	ITD100 or Proficiency	
WRITTEN & ORAL COMMUNICATION: 6 credit hours minimum				
ENG124	College Composition^ (required)	3	Co-ENG024 or Co-ENG011 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
ENG230	Business Communication	3	ENG124	
ENG231	College Composition II	3	ENG124	
ENG235	Introduction to Shakespeare▲+	3	ENG124	
ENG241	Major Modern Writers▲+	3	ENG124	
COM121	Effective Speaking	3		
COM122	Interpersonal Communication	3		
COM123	Small Group Communication	3	IDS102 or Proficiency	
COM125	Introduction to Communication Theory^▲-	3	IDS102 or Proficiency	
SOCIAL & BEHAVIORAL SCIENCES: 9 credit hours minimum				
PSC121	Political Science	3		
PSY121	General Psychology^	3	IDS102 or Proficiency	
PSY123	Human Growth & Development	3	PSY121	
PSY124	Industrial/Organizational Psychology	3		
PSY220	Social Psychology	3	PSY121	
PSY221	Abnormal Psychology	3	PSY121	
BUS122	Basic Economics^	3	IDS102 or Proficiency	
BUS221	Microeconomics^	3	IDS102 or Proficiency	
BUS222	Macroeconomics^	3	IDS102 or Proficiency	
SOC121	Sociology^	3	IDS102 or Proficiency	
SOC122	Society and Technology	3		
SOC123	Dynamics of the Family	3		
SOC221	Social Problems	3	SOC121	
SOC225	Cultural Diversity (required)	3		

^ Based on SSC placement scores

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

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

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

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ARTS & HUMANITIES: 6 credit hours minimum				
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		
HIS221	World Civilization to 17 th Century	3		
HIS222	World Civilization from 17 th Century	3		
PHL122	Ethics	3		
NATURAL SCIENCES & MATHEMATICS				
<u>Natural Sciences: 12 credit hours minimum (1 lab course required)</u>				
BIO101	Introduction to Anatomy and Physiology [^]	3	IDS102 or Proficiency	
BIO121	Anatomy and Physiology I (lab)	4	BIO101 or Proficiency	
BIO122	Anatomy and Physiology II (lab)	4	BIO121 or BIO123	
BIO126	Science, Energy, & the Environment (lab)	4		
BIO127	Human Biology (lab)	4		
BIO128	Climate Studies (lab) ▲+	3		
BIO129	Meteorology (lab)	3		
BIO130	Ocean Studies (lab) ▲-	3		
BIO141	General Biology I (lab)	4		
BIO142	General Biology II (lab) ▲+	4		
BIO200	Ecology (lab) ▲-	4	BIO142	
BIO241	General Genetics (lab)	4	BIO141	
BIO242	Cell & Molecular Biology (lab) ▲+	4	BIO141	
BIO221	Principles of Microbiology (lab)	4	BIO122 or BIO123 or BIO141	
CHM100	Applying Chemistry to Society (lab)	4		
CHM101	Introduction to Chemistry [^]	4	(MTH093 or MTH025 or Proficiency) or MTH105 or MTH106 or MTH107	
CHM105	Introduction to Forensic Science(lab)	3		
CHM205	Forensic Chemistry(lab)	4	CHM105 or CHM121 or CHM141	
CHM121	Gen., Org., & Bio Chemistry I (lab)	4	CHM101 or Proficiency	
CHM122	Gen., Org., & Bio Chemistry II (lab) ▲+	4	CHM121	
CHM141	General Chemistry I (lab)	5	CHM101 or Proficiency	
CHM142	General Chemistry II (lab)	5	CHM141	

[^] Based on SSC placement scores

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

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

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CHM241	Organic Chemistry I (lab) ▲-	5	CHM142	
CHM242	Organic Chemistry II (lab) ▲+	5	CHM241	
GEO141	Physical Geology (lab)	4		
PHY101	Principles of Physics [^] (lab)	4	[(MTH093 or MTH025 or Proficiency) or MTH105 or MTH106 or MTH107 or MTH108] and (IDS102 or Proficiency)	
PHY105	Astronomy (lab)	4		
PHY121	College Physics I with Algebra (lab) [^]	4	MTH135 or (MTH125 and MTH130) or Proficiency	
PHY122	College Physics II with Algebra (lab) ▲*	4	PHY121	
PHY221	General Physics I with Calculus (lab) ▲-	5	MTH223 and Co-MTH224	
PHY222	General Physics II with Calculus (lab) ▲+	5	PHY221 and MTH224 and Co-MTH225	
<i>Mathematics: 3-5 credit hours minimum</i>				
MTH124	Statistics [^]	3	MTH093 or Pre-Co-MTH024 or Proficiency	
MTH125	College Algebra [^]	4	MTH094 or Pre-Co-MTH025 or Proficiency	
MTH130	Trigonometry	3	MTH125	
MTH135	Precalculus [^] – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	(MTH093 and MTH094) or Proficiency	
MTH221	Concepts of Calculus [^] ▲+	3	MTH135	
MTH223	Analytic Geometry and Calculus I [^]	4	MTH135	
MTH224	Analytic Geometry and Calculus II	4	MTH223	
MTH225	Analytic Geometry and Calculus III	3	MTH224	
MTH226	Linear Algebra▲-	3	MTH224	
MTH227	Ordinary Differential Equations▲+	3	MTH224	
<i>ADDITIONAL ELECTIVES TO COMPLETE DEGREE*</i>		20-25		
<i>TOTAL CREDIT HOURS</i> <i>(60 credit minimum)</i>		60-65		

[^] Based on SSC placement scores

***Additional Electives:** Choose from previous pages or the additional electives list shown on the next page.

▲-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 for availability.

ASSOCIATE OF SCIENCE ELECTIVES

The Associate of Science Degree requires a **minimum of 60 credit hours**. Students should select a minimum of 40 credit hours from the previous pages. They must further choose 20-25 elective credit hours from the previous pages or the list below to reach a minimum of 60 credit hours. Please note, courses on the previous pages are OTM and/or TAG with the exception of SSC101 and IDS122; the listing on this page may contain OTM or TAG courses. Please see your academic advisor for assistance with course selection.

ADDITIONAL ARTS & SCIENCES COURSES	
Biology	Social and Behavioral Sciences
BIO123 Principles of Human Structure & Function (lab)# (5)	GER121 Introduction to Gerontology (3)
BIO124 Human Diseases (3)	GER122 Psychosocial Aspects of Aging (3)
BIO125 Medical Terminology (3)	PSC122 Introduction to Law and the Legal System (3)
BIO222 Pharmacology (3)	PSC221 State and Local Government (3)
	PSC222 Public Policy (3)
Chemistry	PSY222 Psychological Aspects of Therapy (3)
CHM243 Biochemistry I (3) ▲-	SOC222 Juvenile Delinquency (3)
CHM244 Biochemistry II (3) ▲+	
	Computational Science
English and Modern Languages	CST120 Computational Science Methods (3)
ENG125 Technical Editing & Layout (3) ▲+	CST121 Modeling & Simulation (lab) (3)
ENG227 Writing for Media (3)	CST221 Computational Biology (4)
ENG228 Writing for the Web (3) ▲-	
ENG229 Grant Writing (3)	Sciences
ENG239 Film Appreciation (3)	SCI273 Special Topics in Science (3)
ENG240 Women's Literature (3)	
SPN100 Elementary Spanish I (4)	Communications
SPN200 Elementary Spanish II (4) ▲+	COM223 Interviewing (3) ▲-
General	
SSC201 Study Away (1)	
STN100 State Tested Nurse Aide (3)	

#BIO121 and BIO122 may be substituted for BIO123.

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

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

FULL-TIME STUDENT ADVISING NOTES

Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester to discuss their academic progress and plans as well as career plans.

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 the website of the university and program to which you are transferring for their course requirements and <https://www.transferology.com/> to assist in developing a plan for transferring to another college or university. Students should select Ohio Transfer Module approved and/or 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.

Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

<u>First Semester</u>		<u>Credit Hours</u>	<u>Pre- and Co-requisites</u>
SSC101	Student Success Seminar ^{^^}	1	Take first semester
ITD122	Computer Applications for Professionals [^]	3	ITD100 or Proficiency
ENG124	College Composition [^] (Required)	3	Co-ENG024 or Co-ENG011 or Proficiency
Mathematics Elective ^{2^}		3-5	Check for prerequisites
Natural Sciences Elective ^{3^}		<u>3-5</u>	Check for prerequisites
		13-17	
<u>Second Semester</u>			
Elective ⁶		3-5	Check for prerequisites
Natural Sciences Elective ^{3^}		3-5	Check for prerequisites
Social & Behavioral Science Elective ⁵		3	Check for prerequisites
Written & Oral Communication Elective ⁴		<u>3</u>	Check for prerequisites
		12-16	
<u>Third Semester</u>			
SOC225	Cultural Diversity (Required)	3	
Arts & Humanities Elective ¹		3	Check for prerequisites
Elective ⁶		3-5	Check for prerequisites
Natural Sciences Elective ^{3^}		<u>3-5</u>	Check for prerequisites
		12-16	
<u>Fourth Semester</u>			
Arts & Humanities Elective ¹		3	Check for prerequisites
Natural Sciences Elective ^{3^}		3-5	Check for prerequisites
Social & Behavioral Science Elective ⁵		3	Check for prerequisites
Elective ⁶ (Take an additional 0 – 14 credit hours to reach 60-65 credit hours)		<u>0-14</u>	Check for prerequisites
		9-25	
	TOTAL CREDITS	60-65	

[^]Based on SSC placement scores.

^{^^}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 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.

¹Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, HIS221, HIS222, PHL122

²Mathematics Elective: MTH124, MTH125, MTH130, MTH135, MTH221, MTH223, MTH224, MTH225, MTH226, MTH227

³Natural Sciences Electives: BIO101, BIO121, BIO122, BIO124, BIO126, BIO127, BIO128, BIO129, BIO130, BIO141, BIO142, BIO200, BIO221, CHM100, CHM101, CHM105, CHM121, CHM122, CHM141, CHM142, CHM205, CHM241, CHM242, GEO141, PHY101, PHY105, PHY121, PHY122, PHY221, PHY222

⁴Written & Oral Communication Elective: COM121, COM122, COM123, COM125, ENG221, ENG230, ENG231, ENG235, ENG241

⁵Social & Behavioral Science Electives: BUS122, BUS221, BUS222, PSC121, PSY121, PSY123, PSY124, PSY220, PSY221, SOC121, SOC122, SOC123, SOC221

⁶Electives: BIO123, BIO124, BIO125, BIO222, CHM243, CHM244, ENG125, ENG227, ENG228, ENG229, ENG239, ENG240, SPN100, SPN200, COM223, GER121, GER122, PSC122, PSC221, PSC222, PSY222, SOC222, CST120, CST121, CST221, SCI273, SSC201, STN100 or any additional Written & Oral Communication, Social & Behavioral Sciences, Arts & Humanities, Mathematics, or Natural Science electives.