



ASSOCIATE OF SCIENCE

CHEMISTRY

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.

2023-24 Catalog
Effective Summer 2023

1260

Arts and Sciences Division

Chemistry Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
FRESHMAN EXPERIENCE				
SSC101	Student Success Seminar ^{^^}	1	Take first semester	
CONCENTRATION CORE: 20 credit hours				
CHM141	General Chemistry I (lab)	5	(CHM101 or Proficiency) or (MTH024 or MTH025 or Proficiency)	
CHM142	General Chemistry II (lab) ^{▲+}	5	CHM141	
CHM241	Organic Chemistry I (lab) ^{▲-}	5	CHM142	
CHM242	Organic Chemistry II (lab) ^{▲+}	5	CHM241	
NATURAL SCIENCES: 4 credit hour minimum				
CHM205	Forensic Chemistry (lab) (recommended for Forensic Science)	4	CHM123 or CHM141 or CHM105	
PHY121	College Physics I with Algebra (lab) [^] (recommended for BA)	4	MTH135 or (MTH125 and MTH130) or Proficiency	
PHY221	General Physics I with Calculus (lab) ^{▲-} (recommended for BS)	5	Pre-MTH223 and Co-MTH224	
BIO141	General Biology I (lab)**	4		
MATHEMATICS, STATISTICS AND LOGIC: 8 credit hours minimum				
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	
MTH224	Analytic Geometry and Calculus II	4	MTH223	
MTH225	Analytic Geometry and Calculus III*	4	MTH224	
ENGLISH COMPOSITION AND ORAL COMMUNICATION: 3 credit hours				
ENG124	College Composition [^] (required)	3	Co-ENG024 or Co-ENG011 or Proficiency	
SOCIAL AND BEHAVIORAL SCIENCES: 6 credit hours across two disciplines				
BUS122	Basic Economics [^]	3	IDS102 or Proficiency	
BUS221	Microeconomics [^]	3	IDS102 or Proficiency	
BUS222	Macroeconomics [^]	3	IDS102 or Proficiency	
PSC121	U.S. Government and Politics	3		
PSY121	General Psychology [^]	3	IDS102 or Proficiency	
PSY124	Industrial/Organizational Psychology	3		
PSY220	Social Psychology	3		
SOC225	Diversity in American Society (required)	3	IDS102 or Proficiency	

[^] Based on SSC placement scores

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

*Required if also taking PHY222

**Required if taking BIO241

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

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

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ARTS AND HUMANITIES: 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	
ENG240	Women's Literature	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		
ELECTIVES: Select additional credits from Natural Sciences, Mathematics, or the electives categories to complete the total of 60-65 credit hours				
CHM105	Introduction to Forensic Science (lab)	3		
CHM243	Biochemistry I ▲-	3	CHM123 or CHM141	
PHY105	Astronomy (lab)	4		
PHY122	College Physics II with Algebra (lab) ▲*	4	PHY121	
PHY222	General Physics II with Calculus (lab) ▲+	5	Pre-PHY222 and Co-MTH225	
GEO141	Physical Geology (lab)	4		
BIO142	General Biology II (lab) ▲+	4		
BIO241	General Genetics (lab) ▲-	4	BIO141	
MTH124	Statistics [^]	3	MTH022 or Pre-Co-MTH024 or Proficiency	
MTH227	Ordinary Differential Equations	4	MTH224	
COM121	Effective Speaking	3		
COM122	Interpersonal Communication	3		
CJS121	Introduction to Criminal Justice	3		
CSE122	Programming Logic and Problem Solving [^]	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
ENG221	Technical Report Writing	3	ENG124	
ENG231	College Composition II	3	ENG124	
ITD122	Computer Applications for Professionals [^]	3	ITD100 or Proficiency	
PET131	Corrosion Basics	3		
SOC121	Sociology [^]	3	IDS102 or Proficiency	
SOC122	Society and Technology	3		
SCI273	Special Topics in Science	3		
SSC201	Study Away: Experiential Learning	1		
TOTAL CREDIT HOURS		60-65		

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**Required if taking BIO241

▲-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 advisor for availability.

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 full-time 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 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.

<u>First Semester</u>		<u>Credit Hours</u>	<u>Pre- and Co-requisites</u>
SSC101	Student Success Seminar ^{^^}	1	<i>Take first semester</i>
CHM141	General Chemistry I (lab)	5	(CHM101 or Proficiency) or (MTH024 or MTH025 or Proficiency)
<i>Mathematics, Statistics, and Logic</i> ³		<u>4</u>	<i>Check for prerequisite</i>
		10	
<u>Second Semester</u>			
CHM142	General Chemistry II (lab) ^{▲+}	5	CHM141
ENG124	College Composition [^] (required)	<u>3</u>	Co-ENG024 or Co-ENG011 or Proficiency
		8	
<u>Third Semester</u>			
<i>Mathematics, Statistics, and Logic</i> ³		<u>4</u>	<i>Check for prerequisite</i>
SOC225	Diversity in American Society (required)	<u>3</u>	IDS102 or Proficiency
		7	
<u>Fourth Semester</u>			
<i>Arts and Humanities Elective</i> ²		3	<i>Check for prerequisite</i>
<i>Social and Behavioral Science Elective</i> ¹		<u>3</u>	<i>Check for prerequisite</i>
		6	
<u>Fifth Semester</u>			
CHM241	Organic Chemistry I (lab) ^{▲-}	5	CHM142
<i>Arts and Humanities Elective</i> ²		<u>3</u>	<i>Check for prerequisite</i>
		8	
<u>Sixth Semester</u>			
CHM242	Organic Chemistry II (lab) ^{▲+}	5	CHM241
<i>Elective</i> ^{5,6}		<u>3-4</u>	<i>Check for prerequisite</i>
		8-9	
<u>Seventh Semester</u>			
<i>Natural Science Elective</i> ⁴		3-5	<i>Check for prerequisite</i>
<i>Elective(s)</i> ^{3,5}		<u>3-4</u>	<i>Check for prerequisite</i>
		6-9	
<u>Eighth Semester</u>			
<i>Elective(s)</i> ^{3,5}		<u>4-7</u>	<i>Check for prerequisite</i>
		4-7	
	TOTAL CREDITS	60-65	

[^]Based on SSC placement scores

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

¹ Social and Behavioral Science Electives: BUS122, BUS221, BUS222, PSC121, PSY121, PSY124, PSY220, SOC121, SOC122

² Arts and Humanities Electives: ENG233, ENG234, ENG236, ENG237, ENG240, HIS121, HIS122, HIS221, HIS222, PHL122

³ Mathematics, Statistics and Logic Electives: MTH135, MTH223, MTH224, MTH225*

⁴ Natural Science Electives: CHM205, PHY121, PHY221, BIO141**

⁵ Electives: CHM105, CHM243, PHY105, PHY122, PHY222, GEO141, BIO142, BIO241, MTH124, MTH227, COM121, COM122, CJS121, CSE122, ENG221, ENG231, ITD122, PET131, SOC121, SOC122, SCI273, SSC201

⁶ Select additional courses to complete the total of 60-65 credit hours.

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** Required if also taking BIO241

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