

# CHEMISTRY

## Associate of Science Degree

Science, Technology, Engineering & Math Pathway  
 CCD.edu/Chemistry

### Chemistry Transfer Major

The Associate of Science degree with a designation in chemistry is a two-year program designed for you to graduate and transfer to a four-year institution to complete a bachelor's degree in chemistry.

In this program, students will be equipped with conceptual and experimental tools required to understand and manipulate the molecular world. The program offers classroom, and laboratory practices. Career paths for chemistry degree holders include, but not limited to, quality control, pharmaceutical research, chemical engineering and national defense.

### COURSE MAP

Course	Title	Credits
<b>First Semester</b>		
SOC 1002	Introduction to Sociology II: GT-SS3	3
CHE 1111	General College Chemistry I with Lab: GT-SC1 <sup>3</sup>	5
ENG 1021	English Composition I: GT-CO1 <sup>1</sup>	3
MAT 2410	Calculus I: GT-MA1 <sup>2</sup>	5
<b>Subtotal</b>		<b>16</b>
<b>Second Semester</b>		
CHE 1112	General College Chemistry II with Lab: GT-SC1 <sup>3</sup>	5
ENG 1022	English Composition II: GT-CO2 <sup>1</sup>	3
MAT 2420	Calculus II: GT-MA1 <sup>2</sup>	5
<b>Subtotal</b>		<b>13</b>
<b>Third Semester</b>		
CHE 2111	Organic Chemistry I with Lab	5
MAT 2430	Calculus III: GT-MA1	4
PHY 2111	Physics Calculus Based I with Lab: GT-SC1	5
Choose One Arts & Humanities Course (GTAH1~GT-AH4)		3
HUM 1015	World Mythology: GT-AH2	
HUM 1023	Humanities: Modern World: GT-AH2	
LIT 2005	Race, Ethnicity, and Culture in U.S. Literature: GT-AH2	
PHI 1013	Logic: GT-AH3	
PHI 2018	Environmental Ethics: GT-AH3	
ART 1110	Art Appreciation: GT-AH1	
<b>Subtotal</b>		<b>17</b>
<b>Fourth Semester</b>		
CHE 2112	Organic Chemistry II with Lab	5
PHY 2112	Physics Calculus-Based II with Lab: GT-SC1	5
Choose One Elective		1
CHE 1085	Independent Study	
CSC 1019	Introduction to Programming	
ECO 2002	Principles of Microeconomics: GT-SS1	
EKG 1050	Engineering Data Analysis	
EKG 1051	Experimental Design	
Choose One History Course (GT-HI1)		3
HIS 2015	20th Century World History: GT-HI1	
HIS 1110	The World: Antiquity-1500: GT-HI1	
HIS 1120	The World: 1500-Present: GT-HI1	
HIS 1220	U.S. History Since the Civil War: GT-HI1	
HIS 2105	Women in U.S. History: GT-HI1	
HIS 2200	History of Latin America: GT-HI1	
<b>Subtotal</b>		<b>14</b>
<b>Total Credits</b>		<b>60</b>

<sup>1</sup> Students can take ENG 1022 and an additional GT-CO3 course instead of ENG 1021 and ENG 1022.

<sup>2</sup> Requires prerequisite coursework: MAT 1340 and MAT 1420; see your academic advisor for specific information.

<sup>3</sup> CHE 1111, CHE 1112, CHE 2111, and CHE 2112 cannot be taken online.

NOTE: This statewide transfer articulation agreement in chemistry does not fulfill requirements for the GT Pathways general education curriculum or the Associate of Science degree prior to transfer; however, this agreement does guarantee a student, if admitted, junior standing and completion of the baccalaureate degree within an additional 60 semester hours at the receiving institution.

Completion of the receiving institution's lower division general education requirements is fulfilled only under the condition that one GT Pathways-approved course in arts and humanities (AH1~AH4) and one GT Pathways-approved course in social and behavioral sciences (SS1, SS2, or SS3) are successfully completed at the receiving institution within the first 30 hours or 12 calendar months.

Students transferring to a four-year college/university under this chemistry agreement are encouraged to 'reverse' transfer the one GT Pathways course in arts and humanities and the one GT Pathways course in social and behavioral sciences (Note #2 above) back to their community college in order to complete the GT Pathways general education program and to earn their Associate of Science degree with a chemistry designation. Lecture and laboratory portions of organic chemistry, CHE 2111 and 2112, must not be taken in an online delivery format.

NOTE: The faculty at Community College of Denver have chosen course elective options for this program of study based on the skills students will need to be successful in this discipline. However, for a complete list of available course options, please go to the Colorado Department of Higher Education Transfer Degree Agreement for this program.