CHEMISTRY, AS

Program Code: Chemistry-AS

Program Description

The Associate of Science, Chemistry is a two-year transferable degree. The curriculum includes a core of courses in the physical sciences and mathematics which are advised by the American Chemical Society (ACS) for transfer to any ACS accredited chemistry program. All courses recommended will partially satisfy the bachelor of science in chemistry at the University of Nevada, Reno.

Chemistry Career Map (https://sites.tmcc.edu/flipbook/career-maps/)

Recommended Course Schedule

1st semester		Units
CHEM 121	General Chemistry I	4
English [3]		3
Fine Arts [3]		3
MATH 181	Calculus I (Mathematics) [4]	4
Elective [4]		3
	Semester Total	**17**
2nd semester		
Diversity/Humanities [3]		3
CHEM 122	General Chemistry II	4
English [4]		3
MATH 182	Calculus II	4
	Semester Total	**14**
3rd semester		
Elective [4]		4-7
CHEM 341	Organic Chemistry for Scientists and Professionals I	3
CHEM 241L	Organic Chemistry for Life Sciences Lab I [5]	1
PHYS 180 & 180L	Physics for Scientists and Engineers I and Physics for Scientists/Engineers Lab I	4
Social Science/U.S. and Nevada Constitution [4]		3
	Semester Total	**15**
4th semester		
Elective [4]		6
CHEM 342	Organic Chemistry for Scientists and Professionals II	3
CHEM 242L	Organic Chemistry for Life Sciences Lab II [5]	1
PHYS 181 & 181L	Physics for Scientists and Engineers II and Physics for Scientists/Engineers Lab II	4
	Semester Total	**14**
	Total Units	**60**

[3] See approved General Education list for the AA/AS Degree. (https://catalog.tmcc.edu/degrees-certificates/general-education/aa-as/)

[4] See program recommendations or requirements.

[5] Students who need to complete CHEM 345 at UNR can transfer the two credits from CHEM 345 in place of CHEM 241L and CHEM 242L.

Program Requirements

Associate of Science degrees are designed for students who plan to transfer to a four-year college or university.

To earn an AS degree, students must:

1. Maintain a minimum cumulative GPA of 2.0 (see requirements for graduation.)
2. Complete a minimum of 15 units within the college.
3. Satisfy General Education requirements for the AS (https://catalog.tmcc.edu/degrees-certificates/general-education/as/).
4. Have no financial or library obligation to the college.

Code	Title	Units
General Education Requirements		
English		*3-6*
Including ENG 102 or ENG 114 [1]		
Fine Arts		*3*
Humanities		*3*
Mathematics		*[3]*
Required:		
MATH 181	Calculus I	4
Science		*[6]*
Lab required		
Required:		
CHEM 121 & CHEM 122	General Chemistry I and General Chemistry II	8
Social Science		*3*
Recommended:		
CH 203	American Experiences and Constitutional Change	
PSC 101	Introduction to American Politics	
PSY 101	General Psychology	
Additional College Requirements		
Diversity [2]		*[3]*
Science courses (2 units satisfied through required CHEM 121 & CHEM 122) [2]		*[6]*
U.S. and Nevada Constitutions [2]		*[3]*
Degree Requirements		
CHEM 341	Organic Chemistry for Scientists and Professionals I	3
CHEM 241L	Organic Chemistry for Life Sciences Lab I	1
CHEM 342	Organic Chemistry for Scientists and Professionals II	3
CHEM 242L	Organic Chemistry for Life Sciences Lab II	1
Mathematics: Additional 1 unit from Math 181 in Gen. Ed.		
MATH 182	Calculus II	4
PHYS 180 & 180L	Physics for Scientists and Engineers I and Physics for Scientists/Engineers Lab I	4
PHYS 181 & 181L	Physics for Scientists and Engineers II and Physics for Scientists/Engineers Lab II	4
Elective Requirements		
Select 13 units from transferable electives		13
Recommended:		

	BIOL 190A	Introduction to Cell and Molecular Biology
	BIOL 190L	Introduction to Cell and Molecular Biology Laboratory
	MATH 283	Calculus III
	MATH 285	Differential Equations
Total Units		**60**

[1] If you place into ENG 102 or ENG 114 the additional 3 required units will become elective units. Course sequence is based on placement into ENG 102.

[2] Course may also count toward degree requirements. Please consult with Academic Advisement.

Program Outcomes

Students completing the degree will:

PSLO1: Demonstrate a basic knowledge of General Chemistry in topics such as stoichiometry, nomenclature, acids and bases, gas laws, equilibrium, kinetics, thermochemistry, and electrochemistry.

PSLO2: Demonstrate a basic knowledge of Organic Chemistry in topics such as stoichiometry, organic nomenclature, acids and bases, organic synthesis, reaction mechanisms, and spectroscopy.

PSLO3: Demonstrate knowledge of scientific methods and the relationship of theory, experiment, and data analysis.

Transfer Agreements

AA/AS degrees are designed for students who plan to transfer to a four-year college or university. General information about general transfer agreements can be found on the Academic Advisement website (https://www.tmcc.edu/advisement/transfer-students/transfer-agreements/). Students who intend to transfer to another college or university should speak with a TMCC Academic Advisor and consult with that institution. The transfer institution determines how TMCC courses will transfer. TMCC has agreements with the following institutions towards a bachelor's degree in the same or similar discipline.

- University of Nevada, Reno (https://www.unr.edu/admissions/transfer/credits/transfer-agreements/)