Triton College 2021-22 Catalog

Area of Study: **Science and Engineering**
Pathway: **Chemistry**
Degree type: **Associate in Science**
Curriculum Code: **SCI.CHM.AS (U230A28)**

(Total Program Credits: 60)

Many careers are open to Chemistry majors. Lab technician positions in the chemical industry are available for students with an associate in science degree. Students continuing with a four-year Chemistry major program have career possibilities in research, government, patent law, business administration, sales and purchasing, chemical engineering, environmental work (pollution control and ecology) and quality control in the food industry. Students planning a career in medicine, dentistry or veterinary science often major in Chemistry with supporting Biology courses.

PROGRAM LEARNING OUTCOMES:

At the successful completion of the Associate in Science (Chemistry emphasis) program, the graduate will be able to:

- Apply the scientific method by conducting experiments, using instrumentation, testing hypotheses and completing lab reports;
- use proper techniques for good laboratory practice, including basic principles of lab safety, to acquire the skills necessary for continuing education and/or employment in chemical industry;
- demonstrate the ability to read, comprehend, and critically review scientific literature to recognize legitimate sources and conduct scientific research;
- identify the nomenclature, structure, and properties of chemical molecules;
- classify chemical reactions and processes (including sustainable and ecologically-conscious ones) in order to recognize their application to everyday life;
- illustrate the principles of qualitative and quantitative problem-solving in the classroom and in the laboratory; and
- develop an awareness of chemistry-related fields and careers in preparation for future employment or higher education.

Placement Measures MAT, RHT, and COL sequence placement will be determined by an Academic Advisor. Contact your Academic Advisor before registering for courses.
Developmental education courses do not transfer. They assist students in the path towards college credit.

Program Map for Full-Time Students

Semester One: Fall	**Category**	**Next Steps**
CHM 140 General Chemistry I (5)	*Physical Science*	Meet with your Academic Advisor to create an academic plan.
MAT 131 Calculus & Analytic Geometry I (5)	*Mathematics*	
RHT 101 Freshman Rhetoric & Composition I (3)	*Communication*	

Social and Behavioral Science General Education Course (3)	*Social and Behavioral Science*	Explore transfer institutions and admissions requirements by attending transfer events.

16 Credit Hours

Note: Grade of "C" or higher is an IAI requirement for RHT 101 and RHT 102.

Semester Two: Spring	**Category**	**Next Steps**
CHM 141 General Chemistry II (5)	*Program Elective*	Meet with your Academic Advisor to update your academic and transfer plan. Create a Transferology account to explore how coursework transfers. Attend a Transfer 101 Workshop.
MAT 133 Calculus & Analytic Geometry II (5)	*Mathematics*	
RHT 102 Freshman Rhetoric & Composition II (3)	*Communication*	
Social and Behavioral Science General Education Course (3)	*Social and Behavioral Science*	

16 Credit Hours

Note: Grade of "C" or higher is an IAI requirement for RHT 101 and RHT 102.

Semester Three: Fall	**Category**	**Next Steps**
SPE 101 Principles of Effective Speaking (3)	*Communication*	Meet with your Academic Advisor to update your academic and transfer plan. Attend a Ready to Apply Workshop. GECC Credential Achieved.
PHY 101 General Physics (Mechanics, Heat and Sound) (4) Or PHY 106 [6] General Physics (Mechanics) (5)	*Physical Science*	
CHM 234 Organic Chemistry I (5)	*Program Elective*	
Humanities General Education Course (3)	*Humanities*	

15-16 Credit Hours

Semester Four: Spring	**Category**	**Next Steps**
CHM 235 Organic Chemistry II (5)	*Program Elective*	Meet with your Academic Advisor to finalize your transfer plan. Submit graduation petition by deadline (check for the specific date in catalog or syllabi.) Apply to your transfer institution(s).
PHY 102 Gen Physics (Electricity, Magnetism, Optics & Modern Physics) (5) *Or* PHY 107 General Physics (Electricity, Magnetism, & Thermodynamics) (4) Or MAT 235 Calculus & Analytic Geometry III (5)	*Program Elective*	
Life Science General Education Course (3)	*Life Science*	
Fine Arts General Education Course (3)	*Fine Arts*	

15-16 Credit Hours

NOTE: Take one additional Humanities or Fine Arts and one additional Social and Behavioral Science course, to be eligible for the General Education Core Curriculum (GECC) Credential.

Suggested additional electives:
CHM 141 General Chemistry II (5)
CHM 234 Organic Chemistry I (5)
CHM 235 Organic Chemistry II (5)
PHY 102 General Physics (Electricity, Magnetism, Optics & Modern Physics) (5)
OR
PHY 107 General Physics (Electricity, Magnetism, &Thermodynamics) (4)
MAT 235 Calculus & Analytic Geometry III (5)

(Select courses that meet the BA requirements of your transfer college.)

NOTES:

- PHY 106◊, PHY 107◊ and PHY 108◊ are required for students planning to major in Engineering.
- CHM 234◊, CHM 235◊: Recommend completion of CHM 234◊ and CHM 235◊ sequence at Triton.

Graduation requirements:

AS degree	**Subtotal: 37-41**
Chemistry courses or other electives for AS degree	**Subtotal: 19-23**

General Education requirements:

- **Communications:** Three courses (nine semester hours).
- **Humanities and Fine Arts:** Two courses (six semester hours), with at least one course selected from Humanities and at least one course from the Fine Arts;
- **Social and Behavioral Science:** two courses (six semester credits), with courses selected from at least two disciplines.

  Graduation from an Illinois college or university requires satisfactory completion of one or more courses incorporating Human Diversity, which may be taken as a Humanities and Fine Arts or Social and Behavioral Science course.
- **Mathematics:** Two courses *(six to nine semester hours)*.
- **Physical and Life Science:** Three courses (10-11 semester hours), with at least one course selected from the Life Sciences and one course from the Physical Sciences and including at least one laboratory course.
- **Foreign Language encouraged if transferring to a four-year institution.**

See CHM course descriptions

Chairperson: Gabriel Guzman, Ext. 3312; email: gabrielguzman@triton.edu