

Chemistry Transfer Pathway AS DEGREE

Program Overview

The Chemistry Transfer Pathway AS degree is awarded for successful completion of 60 credits in science and liberal arts. It is designed to constitute the first two years of a bachelor's degree in Chemistry.

Career Opportunities

Chemistry majors are curious, analytical and self-starting leaders. Upon completion of the Chemistry AS degree, students will have developed strong communication skills and grown in their scientific and mathematical reasoning skills as well as developed their ability to perform experiments in a hands-on environment. As graduates in Chemistry, students can choose a number of career options from technical scientific laboratory careers to education. Salaries will vary based on the chosen career path.

Program Outcomes

Students should be able to:

1. Demonstrate basic knowledge and understanding of the fundamentals of experimental and theoretical chemistry.
2. Explain and apply skills in analytical thinking and problem solving, and apply scientific methods to experimental data.
3. Demonstrate skills in laboratory operations including making accurate and precise measurements, preparing solutions, operating instrumentation, experimental design, and the interpretation and reporting of quantitative and qualitative data and results.
4. Communicate their own data and analysis in oral and written communications that uses tables and graphs, describes detailed experimental procedures, and clearly explains conclusions, in order to create clear and compelling papers, posters, or presentations.
5. Work both independently and collaboratively in the classroom and in the laboratory.
6. Apply learned concepts to everyday situations and experiences and critically evaluate contributions to science reported in the media; identify valid approaches to scientific problem solving and reporting.

Transfer Opportunities

Saint Paul College has a transfer articulation agreement between the following program and post-secondary institution for the baccalaureate degree program listed below.

For more information please go to saintpaul.edu/Transfer.

Chemistry Transfer Pathway AS

BS	Chemistry
BA	Individualized Studies
	Metropolitan State University

BS	Chemistry
	Minnesota State University, Mankato (ACS Approved)
BA	Chemistry
	Southwest Minnesota State University
BS	Chemistry
	St. Cloud State University (ACS Approved)

Program Faculty

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Program Requirements

Check off when completed

Course	Cr
<input type="checkbox"/> CHEM 1711 Principles of Chemistry 1	4
<input type="checkbox"/> CHEM 1712 Principles of Chemistry 2	4
<input type="checkbox"/> CHEM 2720 Organic Chemistry 1	5
<input type="checkbox"/> CHEM 2721 Organic Chemistry 2	5
<input type="checkbox"/> PHYS 2700 General Physics 1 (w/Calc)	5
<input type="checkbox"/> PHYS 2710 General Physics 2 (w/Calc)	5
<input type="checkbox"/> MnTC elective	2
Subtotal	30

General Education/MnTC Requirements

Refer to the Minnesota Transfer Curriculum Course List for each Goal Area

<input type="checkbox"/> Goal 1: Communication	9
ENGL 1711 Composition 1 – 4 cr	
ENGL 1712 Composition 2 – 2 cr	
COMM 17XX – 3 cr	
<input type="checkbox"/> Goal 3: Natural Science	0
Met with courses from above.	
<input type="checkbox"/> Goal 4: Mathematical/Logical Reasoning	8
MATH 2749 Calculus 1 – 4 cr	
MATH 2750 Calculus 2 – 4 cr	
<input type="checkbox"/> Goal 5: History, Social Science, and Behavioral Sciences	3
<input type="checkbox"/> Goal 6: Humanities & Fine Arts	3
<input type="checkbox"/> Goals 1-10 of the MnTC	7

Students must select a minimum of 8 additional credits such that courses from at least six (6) goal areas of the Minnesota Transfer Curriculum are met.

General Education Requirements	30
Total Program Credits	60

*Information is subject to change.
This Program Requirements Guide is not a contract.*

Program Start Dates

Fall, Spring, Summer

Course Sequence

This course sequence is recommended for a full-time student; however, this sequence is not required. Not all courses are offered each semester; a selection of courses is offered summer term. Students should consult with the Program Faculty each semester.

First Semester

Goal 1: ENGL 1711 Composition	4
Goal 1: COMM 17XX	3
Goal 3: CHEM 1711 Principles of Chemistry 1	4
Goal 4: MATH 2749 Calculus 1	4
Total Semester Credits	15

Second Semester

Goal 3: CHEM 1712 Principles of Chemistry 2	4
Goal 3: PHYS 2700 General Physics 1 (w/Calc)	5
Goal 5: History, Social Science, and Behavioral Sciences	3
MnTC elective	3
Total Semester Credits	15

Third Semester

Goal 3: BIOL 1740 General Biology 1: The Living Cell	5
Goal 3: CHEM 2720 Organic Chemistry 1	5
Goal 6: Humanities & Fine Arts	3
MnTC elective (Goal 3)	3
Total Semester Credits	16

Fourth Semester

Goal 3: BIOC 2700 Biochemistry	4
Goal 3: CHEM 2721 Organic Chemistry 2	5
MnTC elective	5
Total Semester Credits	14

Total Program Credits **60**

Minimum Program Entry Requirements

Students entering this program must meet the following minimum program entry requirements:

Reading: Score of 78+ or grade of "C" or better in READ 0722

Writing: Score of 78+ on Reading Comprehension or grade of "C" or better in ENGL 0922

College Level Mathematics: Score of 50+ or grade of "C" or better in MATH 0920

Assessment Results and Prerequisites:

Students admitted into Saint Paul College programs may need to complete additional courses based on assessment results and course prerequisite requirements. Certain MATH, READ, and ENGL courses have additional prerequisites.

TPCH