

Chemistry Transfer Pathway AS - 60 credits (Fall 2019)

*****REMEMBER TO REGISTER EARLY*****

Program Description

The Chemistry Transfer Pathway AS offers students a powerful option: the opportunity to complete an Associate of Science degree with course credits that directly transfer to designated Chemistry bachelor's degree programs at Minnesota State universities. The curriculum has been specifically designed so that students completing this pathway degree and transferring to one of the seven Minnesota State universities enter the university with junior-year status. All courses in the Transfer Pathway associate degree will directly transfer and apply to the designated bachelor's degree programs in a related field. Universities within the Minnesota State system include Bemidji State University; Metropolitan State University; Minnesota State University, Mankato; Minnesota State University Moorhead; Southwest Minnesota State University; St. Cloud State University; and Winona State University.

REQUIRED COURSES

Course	Course Title	Credits	MnTC Goal Area	Term
FYE 1000	First Year Experience	1		
CHEM 1210	General Chemistry I	5	3	
CHEM 1211	General Chemistry II	5	3	
CHEM 2110	Organic Chemistry I	5		
CHEM 2111	Organic Chemistry II	5		
MATH 2204	Calculus I	5	4	
MATH 2205	Calculus II	5	4	
PHYS 2201	General Physics	5		
PHYS 2202	General Physics II	5		
COMM 1100 or COMM 1105 or COMM 1110 or COMM 1115	Introduction to Communication or Interpersonal Communication or Public Speaking or Intercultural Communication	3	1 1 1 1 & 7	
ENGL 1106	College Composition I	3	1	
ENGL 1109	College Composition II	3	1	
Goal Area 5	History, Social and Behavioral Sciences – one course	3	5	
Goal Area 6	Humanities and Fine Arts – one course	3	6	
Goal Areas 5-10	Unrestricted Elective Courses	4		

Total credits **60**

Courses may require a prerequisite

Pre-program Requirements

To begin this program, you need to be at a specific skill level in English/reading and math.

English/Reading: College Level

Mathematics: MATH1130, with a C or better, or MATH1150, with a C or better, or a score of 100 or higher on the Math portion of the CPT.

*For interpretation of test results and selection of appropriate coursework;
or general information about the program, admissions, financial aid, and getting started at LSC,
contact the at [professional advising team](mailto:pat@lsc.edu) (pat@lsc.edu) or 218-733-7601*



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Program Outcomes

- Demonstrate basic knowledge and understanding of the fundamentals of experimental and theoretical chemistry.
- Explain and apply skills in analytical thinking and problem solving, and apply scientific methods to experimental data.
- 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.
- 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.
- Work both independently and collaboratively in the classroom and in the laboratory.
- 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.

A student completing Lake Superior College's Chemistry Transfer Pathway and transferring into a designated bachelor's program in Chemistry at a Minnesota State University will have junior standing and may complete the bachelor's degree within an additional 60 credits. Students will be able to transfer to the following designated majors at Minnesota State universities:

At Bemidji State University: Chemistry, BA; Chemistry, BS

At Metropolitan State University: Chemistry, BS

At Minnesota State, Mankato: Chemistry – ACS Approved, BS

At Minnesota State, Moorhead: Chemistry, BA; Chemistry, BS

At Southwest State University: Chemistry, BA

At St. Cloud State University: Chemistry ACS Approved BS

At Winona State University: Chemistry, BS (ACS Environmental Chemistry and ACS Material Chemistry)

In order to graduate and be guaranteed admission to a Minnesota State University's designated program in chemistry you must earn an overall grade point average as indicated by the university to which you will transfer.

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Suggested Course Sequence

For a full-time student averaging 15 credits per semester

First Semester		14 credits	Third Semester		17 Credits
FYE 1000 First Year Experience	1 credit		CHEM 2110 Organic Chemistry I	5 credits	
ENGL 1106 College Composition I	3 credits		PHYS 2201 General Physics	5 credits	
CHEM 1210 General Chemistry I	5 credits		Goal Area 6 course	3 credits	
MATH 2204 Calculus I	5 credits		Unrestricted elective (Goal Areas 7, 8, 9 or 10)	4 credits	
Second Semester		16 credits	Fourth Semester		13 Credits
CHEM 1211– General Chemistry II	5 credits		CHEM 2111 Organic Chemistry II	5 credits	
MATH 2205 Calculus II	5 credits		PHYS 2202 General Physics II	5 credits	
COMM 1100, 1105, 1110, or 1115	3 credits		ENGL 1109 College Composition II	3 credits	
Goal Area 5 course	3 credits		Total Credits	60	

Below is a list of suggested unrestricted electives:

Course	Course Title	Credits	MnTC Goal Area
BIOL 1007	Biology and Society	4	3, 9
BIOL 1110	The Ecology of Minnesota	4	3, 10
ENSC 1200	Introduction to Environmental Science	4	3, 10
GEOL 1130	Earth's Resources	4	3, 8
GEOL 1135	Introduction to Weather and Climate	4	3, 10
SOC 2123	People and the Environment	3	5, 10

For more information about the Chemistry Transfer Pathway including course descriptions, course prerequisites, and potential career opportunities, see the [program website](https://degrees.lsc.edu/) (https://degrees.lsc.edu/)

or

Contact Faculty

[Kent Voelkner](mailto:kent.voelkner@lsc.edu) (kent.voelkner@lsc.edu) at 218-733-7771



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All courses in diploma and/or certificate programs are acceptable for credit toward Lake Superior College degree programs as indicated on individual program planners. This is not a contract; Lake Superior College reserves the right to change the planner as necessary. This document is available in alternative formats upon request, by contacting Disability Services at (218) 733-7650 or MRS/TTY (800) 627-3529.