

## AS: Chemistry Transfer Pathway 2021-2022

The Associate in Science degree in Chemistry Transfer Pathway is designed for students to work as a chemical lab assistant or who are interested in transferring after graduation to pursue a *4-year baccalaureate* in chemistry. The pathway to a baccalaureate degree was created to ensure minimum competency requirements are met at the associate degree level and that students are academically prepared to transfer into the parallel bachelor degree program as juniors in chemistry at all of the following Minnesota State Institutions:

- Metropolitan State University (Options to continue at NHCC)
- Minnesota State University Moorhead
- Bemidji State University
- Minnesota State University Mankato
- Southwest State University
- St. Cloud State University
- Winona State University

### Chemistry Specific Content Area

Course No.	Course Title	Credits
CHEM1061	Principles of Chemistry I	4
CHEM1062	Principles of Chemistry II	4
CHEM2061	Organic Chemistry I	5
CHEM2062	Organic Chemistry II	5

### Science and Math Specific Content Area

Course No.	Course Title	Credits
MATH1221	Calculus I	5
MATH1222	Calculus II	5
PHYS1601	General Physics I	5
PHYS1602	General Physics II	5

### General Education Courses

Course No.	Course Title	Credits
<b>College Writing I:</b>		
ENGL1200	Gateway College Writing <i>or</i>	4
ENGL1201	College Writing I	4
COMM1010	Fundamentals of Public Speaking	3
ENGL1202	College Writing II	2
PSYC1150	General Psychology	3
SOC1110	Introduction to Sociology	3

### Humanities and Fine Arts Requirement

Course No.	Course Title	Credits
<b>Goal Area 6 - Must complete 3 credits:</b>		

### MnTC Electives

Course No.	Course Title	Credits
<b>Must Complete 3 credits from Goals 7, 8, 9, or 10</b>		

### NHCC Residency and GPA

Course No.	Course Title	Credits
<b>15 Credits must be earned at NHCC:</b>		
<b>2.00 overall GPA for NHCC courses</b>		

**Total Credit Required 60**

### Degree Requirements

2.00 overall GPA for NHCC courses

#### Program Outcomes

Knowledge of human cultures and the physical and natural world, including:

- 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.

Intellectual and practical skills including:

- 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.

Personal and social responsibility and engagement, including:

- 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.

Integrative and applied learning, including:

- 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.

### **Degree Information**

The Associate of Science (A.S.) degree is intended for students whose primary goal is to complete the credentials for a specific career and/or prepare for transfer to complete a bachelor's degree at a college or university with whom North Hennepin Community College has an articulation agreement. The A.S. degree provides a balance of general education courses and the required scientific, professional or technical courses in the degree program.

A student shall:

Earn a minimum of 60 semester credits as required in the program, with a grade point average of 2.00 (C) or above in courses taken at North Hennepin Community College. Specific programs may have additional requirements or a higher minimum grade point average.

Earn a minimum of 15 semester credits at North Hennepin Community College. A student must complete at least 50% of career specific courses at North Hennepin Community College.

Earn 30 credits in at least 6 Minnesota Transfer Curriculum (MnTC) goal areas. Earn 30 professional/technical credits.

Have four years to complete the graduation requirements as published in the catalog in effect at the time of their initial enrollment. Students taking more than four years to complete their graduation requirements may follow any catalog published during the four-year period preceding their graduation.

Completion of an A.S. degree fulfills the Goal Area 2 requirement of the Minnesota Transfer Curriculum (MnTC).

### **Developmental Courses**

Some students may need preparatory course(s) in Math and/or English. Courses numbered below 1000 will not apply toward a degree.

### **Equal Opportunity Employer and Disability Access Information**

North Hennepin Community College is a member of Minnesota State Colleges and Universities system and an equal opportunity employer and educator. This document is available in alternative formats to individuals with disabilities by calling 763-493-0555 or through the Minnesota Relay Service at 1-800-627-3529.

### **Transfer Information**

If you are planning on transferring to another institution, follow the guidelines available on our

### **Career Opportunities**

Information on careers, including salary and employment outlook data, is available on the iseek and Bureau of Labor Statistics websites: <https://careerwise.minnstate.edu/careers/> and [www.bls.gov](http://www.bls.gov).

### **Accreditation**

North Hennepin Community College is accredited by the: Higher Learning Commission 30 N. LaSalle Street, Suite 2400 Chicago, IL 60602-2504 1-800-621-7440