NORTH HENNEPIN COMMUNITY COLLEGE

Biology Transfer Pathway AS

The Biology Transfer Pathway Associate of Science degree offers students an opportunity to earn course credits that directly transfer to a designated Biology bachelor's degree program at Minnesota State universities. The entire curriculum has been carefully designed to meet bachelor's degree program requirements for transfer students planning to transfer to one of the seven Minnesota State universities.

Biology Transfer Pathway Curriculum

Curriculum

Program Courses

Course Code	Title	Course Outlines	Goal Areas	Credits
BIOL 1101	Principles of Biology I	View-BIOL 1101	n/a	4
BIOL 1102	Principles of Biology II	View-BIOL 1102	n/a	4
BIOL 2360	Genetics	View-BIOL 2360	n/a	4
BIOL 2610	General Ecology	View-BIOL 2610	n/a	4

General Education Courses

Course Code	Title	Course Outlines	Goal Areas	Credits
CHEM 1061	Principles of Chemistry I **and**	View-CHEM 1061	n/a	4
CHEM 1062	Principles of Chemistry II **and**	View-CHEM 1062	n/a	4
Any Goal Area 1 COMM course **and**				
ENGL 1200	Gateway College Writing **or**	View-ENGL 1200	n/a	4
ENGL 1201	College Writing I **and**	View-ENGL 1201	n/a	4
ENGL 1202	College Writing II **or**	View-ENGL 1202	n/a	2
ENGL 1203	College Writing II with Workshop **and**	View-ENGL 1203	n/a	2
MATH 1120	College Algebra **or**	View-MATH 1120	n/a	3
MATH 1150	College Algebra **or**	View-MATH 1150	n/a	3
College Algebra higher (choose based on receiving institution program, MATH 1210 Applied Statistics MATH 1221 are recommended) 6-8				

MnTC Electives

History the Social/Behavioral Sciences (Goal Area 5) - 3 credits
The Humanities Fine Arts (Goal Area 6) - 3 credits

Recommended Courses to total 60 credits*

* ** 13-15 Additional Elective Credits to equal 60 total credits. Chosen based on major transfer University
*Goal area requirements for the AS requires 6 of 10 MNTC goal areas (courses may count for more than one goal area)
**CHEM 2061 Organic Chemistry I CHEM 2062 Organic Chemistry II are recommended for some university programs

NHCC Residency and GPA

15 Credits must be earned at NHCC

Total Credits Required	**60**

Notes

Under some circumstances, students may substitute Biology 1001 for Biology 1101 if the appropriate chemistry and mathematics prerequisites are met prior to enrolling in Biology 1102. Students who have completed Biology 1001 and 1002 under the previous NHCC course numbering system may substitute these courses for Biology 1101/1102. Students may take Math 1150 or HIGHER for this requirement. Students planning to transfer to a BA/BS program are advised to consult the mathematics requirements of the program and institution to which transfer is planned. It is recommended that MATH 1210 is taken. Students planning to transfer to a BA/BS program are advised to consult the mathematics requirements of the program and institution to which transfer is planned. *13-15 Additional Elective Credits to equal 60 total credits. Chosen based on major track and transfer University (CHEM 2061 and CHEM 2062 are highly recommended).

Program Overview

2024-2025

The Associate of Science Biology Transfer Pathway offers students an opportunity to earn course credits that directly transfer to a designated Biology bachelors degree program at Minnesota State universities. The entire curriculum has been carefully designed to meet bachelors degree program requirements for transfer students planning and initial study at a Minnesota State college. Students planning to transfer to non-system universities are advised to consult with their intended transfer institution as early as possible to determine transferability of the courses in this curriculum.

In partnership with Bemidji State University, students can earn a bachelor's degree in Biology on NHCC's campus.
The Biology Transfer Pathway AS will transfer to any of the following universities:

Minnesota State Universities:Bemidji State University, Metropolitan State University, Minnesota State University Mankato, Minnesota State University Moorhead, Southwest Minnesota State University, St. Cloud State University, Winona State University.

Program Outcomes

Scientific Method

Science is a process of trial and error by which we hope to improve our understanding of the natural world incrementally, by making predictions, testing them, and improving their accuracy. The Scientific Method includes the ability to propose testable hypotheses and carry out experiments to test them, and relies on standardized international systems of measurement.

Data Interpretation and Statistical Analysis

Students should be able to analyze simple data sets using appropriate descriptive and inferential statistics.

Navigating and Reading the Scientific Literature

Students should be able to use public literature databases to find appropriate published material, and should be able to read, understand, and evaluate the validity and importance of the scientific literature and to integrate new concepts into their existing knowledge frameworks.

Scientific Communication

Students should be able to communicate their own and others data and analysis in oral and written format, using computers where necessary to visualize data or to create clear and compelling papers, posters, or presentations.

Science and Society/Civic Engagement

Students should be able to analyze scientific studies in light of their ecological, social, economic, ethical, and cultural implications.

Collaboration

Students should learn to communicate and work productively with others in designing, conducting, and evaluating projects, experiments, and other course related deliverables as an essential skill in science.

Interdisciplinary Nature of Science

Science depends upon knowledge, skills, and tools from other scientific and nonscientific disciplines. Students should develop their ability to utilize other disciplines as sources of context and skills to inform the learning and work they are engaged in.

Microscopy

The microscope is a tool used extensively in biology for observation and investigation. Skill development in basic light microscopy and exposure to more advanced forms of microscopy and digital imaging is fundamental to further study in biology.

Program Maps

Program roadmaps provide students with a guide to understand the recommended course sequence to complete their degree.

- **Biology Transfer Pathway AS Program Roadmap Full Time**
- **Biology Transfer Pathway AS Program Roadmap Part Time**

Career Opportunities

Information on careers, including career descriptions, salary data, and employment outlook is available on the **Bureau of Labor Statistics website** and **O*Net Online website.**

Transfer Information

If you are planning on transferring to another institution, follow the guidelines available on our transfer resources web page to help you plan the process: **Transfer Information**

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 7634930555 or through the Minnesota Relay Service at 18006273529.

Accreditation

North Hennepin Community College is accredited by the Higher Learning Commission (**hlcommission.org**), an institutional accreditation agency recognized by the U.S. Department of Education.
30 N. LaSalle Street, Suite 2400
Chicago, IL 60602-2504
1-800-621-7440
