NORTH HENNEPIN COMMUNITY COLLEGE

Computer Science Transfer Pathway AS

The Computer Science Transfer Pathway prepares students to enter the job market in information technology, computer programming, software development, and technical documentation; or to transfer to a bachelor's degree program in computer science, software engineering, or information technology.

Computer Science Transfer Pathway Curriculum

Curriculum

Program Courses

Course Code	Title	Course Outlines	Goal Areas	Credits
CSCI 1040	Fundamentals of Structured Query Language (SQL)	View-CSCI 1040	n/a	3
CSCI 1130	Introduction to Programming in Java (CS0)	View-CSCI 1130	n/a	4
CSCI 2001	Object Oriented Programming (CS1)	View-CSCI 2001	n/a	4
CSCI 2002	Data Structures and Algorithms (CS2)	View-CSCI 2002	n/a	4
CSCI 2020	Computer Architecture	View-CSCI 2020	n/a	4
CSCI 2030	Database Modeling and Design	View-CSCI 2030	n/a	4

Program Electives

Course Code	Title	Course Outlines	Goal Areas	Credits
7 Credits from the Following Courses:				
CSCI 1020	Beginning Web Page Programming **or**	View-CSCI 1020	n/a	1
CSCI 1025	Responsive Web Design **or**	View-CSCI 1025	n/a	1
CSCI 1030	Programming for Internet **or**	View-CSCI 1030	n/a	3
CSCI 1035	Introduction to Computer Programming with Games **or**	View-CSCI 1035	n/a	4
CSCI 1050	Computer Security Basics **or**	View-CSCI 1050	n/a	3
CSCI 1120	Programming in C/C++ **or**	View-CSCI 1120	n/a	4
CSCI 1150	Programming in C# for .NET **or**	View-CSCI 1150	n/a	4
CSCI 1180	Introduction to Linux Operating System **or**	View-CSCI 1180	n/a	4
CSCI 1990	Computer Science Special Topics **or**	View-CSCI 1990	n/a	1-4
CSCI 2010	Discrete Mathematical Structures **or**	View-CSCI 2010	n/a	4
CSCI 2011	Programming in Python **or**	View-CSCI 2011	n/a	1
CSCI 2040	Introduction to Networking Protocols and Analysis **or**	View-CSCI 2040	n/a	4
CSCI 2050	Internship Computer Science **or**	View-CSCI 2050	n/a	3
CSCI 2060	Web Programming in ASP.NET **or**	View-CSCI 2060	n/a	4

Course Code	Title	Course Outlines	Goal Areas	Credits
CSCI 2101	Foundations of Cryptography	View-CSCI 2101	n/a	4

General Education Courses

Course Code	Title	Course Outlines	Goal Areas	Credits
College Writing I - 1 course				
ENGL 1200	Gateway College Writing **or**	View-ENGL 1200	n/a	4
ENGL 1201	College Writing I	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	View-ENGL 1203	n/a	2
COMM 1010 COMM 1210 - 1 Course				
COMM 1010	Fundamentals of Public Speaking **or**	View-COMM 1010	n/a	3
COMM 1210	Small Group Communication	View-COMM 1210	n/a	3
CSCI 2010	Discrete Mathematical Structures	View-CSCI 2010	n/a	4
MATH 1221	Calculus I	View-MATH 1221	n/a	5
BIOL 1120 GEOG 1010 - 1 course				
BIOL 1120	Human Biology **or**	View-BIOL 1120	n/a	3
GEOG 1010	Physical Geography	View-GEOG 1010	n/a	3
ECON 1060, ECON 1070, PYSC 1150 - 1 course				
ECON 1060	Principles of Macroeconomics **or**	View-ECON 1060	n/a	3
ECON 1070	Principles of Microeconomics **or**	View-ECON 1070	n/a	3
PSYC 1150	General Psychology	View-PSYC 1150	n/a	3

MnTC Electives

The Humanities Fine Arts (Goal Area 6) - 3 credits
MnTC Electives - 3 Additional credits from Goal Areas 1-6

NHCC Residency and GPA

15 elective credits

Total Credits Required	**60**

Program Overview

2024-2025

The Computer Science 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 Computer Science bachelors 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 bachelors degree programs in a related field.

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

Program Outcomes

Intellectual and Practical Skills, including:

- Employing methodical and technical processes in designing and programming software applications.
- Designing databases to access, manage and store data.

Personal and Social Responsibility and Engagement:

- Following best practices of software development.

- Designing and coding robust programs that conform to industry standards.

Integrative and Applied Learning: Applying computer technology to solve real world problems.

Program Maps

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

- **Computer Science Transfer Pathway AS Full Time**
- **Computer Science Transfer Pathway AS 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.
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