

## Cert: Application Programming 2021-2022

The Application Programming Certificate helps students to build and develop an understanding for designing, coding, testing and debugging applications in various programming languages.

### Program Courses

Course No.	Course Title	Credits
<b>Program Courses - 12 credits:</b>		
CSCI1120	Programming in C/C++ <i>or</i>	4
CSCI1130	Introduction to Programming in Java (CS0) <i>or</i>	4
CSCI1150	Programming in C# for .NET <i>or</i>	4
CSCI2001	Object Oriented Programming (CS1) <i>or</i>	4
CSCI2002	Data Structures and Algorithms (CS2) <i>or</i>	4
CSCI2020	Computer Architecture <i>or</i>	4
CSCI2060	Web Programming in ASP.NET	4

### NHCC Residency and GPA

Course No.	Course Title	Credits
<b>4 Credits must be earned at NHCC:</b>		
<b>2.00 overall GPA for NHCC courses</b>		

#### Total Credit Required 12

#### Degree Requirements

2.00 overall GPA for NHCC courses

#### Degree Information

Certificates may be earned for successful completion of courses in a specialized program of study with a minimum grade point average of

2.00 (C). A certificate shall include 9 to 30 semester credits. At least one-third of the total credits required for each certificate must be completed at North Hennepin Community College.

#### 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.

#### Program Outcomes

Knowledge of Human Cultures and the Physical and Natural World, including:

- Writing programs to handle a specific job, such as a program to track inventory within an organization.

Intellectual and Practical Skills, including:

- Revising existing software to improve performance. Customizing generic applications for specific tasks.
- Writing custom web applications.
- Differentiating requirements of application programming from system programming.

#### Career Opportunities

Information on careers, including salary and employment outlook data, is available on the isseek 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

#### Transfer Information

If you are planning on transferring to another institution, follow the guidelines available on our transfer resources web page to help: [www.nhcc.edu/transfer](http://www.nhcc.edu/transfer)

**Degree Information**

Certificates may be earned for successful completion of courses in a specialized program of study with a minimum grade point average of 2.00 (C). A certificate shall include 9 to 30 semester credits. At least one-third of the total credits required for each certificate must be completed at North Hennepin Community College.

**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.