

Object-Oriented Programming Certificate

The Object-Oriented Programming Certificate provides students with the opportunity to learn the fundamentals and more advanced topics of object-oriented design and programming.

Object-Oriented Programming Curriculum

Curriculum

Program Courses

| Course Code | Title | Course Outlines | Goal Areas | Credits |
|---------------------------|--------------------------------------|--------------------------------|------------|---------|
| 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 |

Program Electives

| Course Code | Title | Course Outlines | Goal Areas | Credits |
|------------------------------|---|--------------------------------|------------|---------|
| Program Electives - 1 course | | | | |
| CSCI 1130 | Introduction to Programming in Java (CS0) or | View-CSCI 1130 | n/a | 4 |
| CSCI 1150 | Programming in C# for .NET | View-CSCI 1150 | n/a | 4 |

NHCC Residency and GPA

| | |
|----------------------------------|-----------|
| 4 Credits must be earned at NHCC | |
| Total Credits Required | 12 |

Program Overview

2023-2024

The ObjectOriented Programming Certificate provides students with the opportunity to learn the fundamentals and more advanced topics of object oriented design and programming. The certificate is designed in the way allowing the students to select one or two programming languages, among the most popular ones. The major language elements are introduced in connection with the related algorithms. The students will also learn about the major abstract data types and the efficient ways to manipulate data.

Program Outcomes

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

- Designing appealing and functional user interfaces.

Intellectual and Practical Skills, including:

- Debugging and testing computer programs.
 - Designing professional grade object oriented applications in Java.
 - Programming in another major computer language (optional).
 - Utilizing the standard data structures to handle and store the data associated with the applications.
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Career Opportunities

Information on careers, including salary and employment outlook data, is available at Minnesota State and the Bureau of Labor Statistics websites: careerwise.minnstate.edu and www.bls.gov.

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

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 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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