

# North Hennepin Community College

## CSCI 1150: Programming in C# for .NET

### A. COURSE DESCRIPTION

Credits: 4

Lecture Hours/Week: \*.\*

Lab Hours/Week: \*.\*

OJT Hours/Week: \*.\*

Prerequisites:

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Corequisites: None

MnTC Goals: None

This course provides an introduction to object-oriented programming using the C# programming language. The majority of the course will be on the semantics of the C# language, a major component of Microsoft .NET development environment. Topics include: Visual Studio .NET integrated development environment, selected value and reference types, control structures, operators and expressions, methods, classes, and inheritance. Completion of this class will prepare the student for advanced topics in C#.

Prerequisite: Math 1150 with a grade of "C" or better

### B. COURSE EFFECTIVE DATES: 08/25/2003 - Present

### C. OUTLINE OF MAJOR CONTENT AREAS

1. The C# language will be used to introduce foundations of object-orientated programming. Structured programming and modularization are taught using sequence, loops, decision statements, arrays and methods. The course also focuses on event-driven programming.
2. Students will complete several programming assignments to develop their problem-solving skills and to gain experience in detecting and correcting software errors.
3. Topics include:
  - Visual Studio .NET integrated development environment
  - Selected value and reference types
  - Control structures
  - Operators and expressions
  - Methods
  - Classes and objects
  - Inheritance

### D. LEARNING OUTCOMES (General)

1. Demonstrate problem solving skills using C# programming language (Program goal B).
2. Formulate the algorithm for solving the problems, and translate these algorithms into C# instructions (Program goal C).
3. Comprehend the basic concepts and methods in a programming life cycle through attention to details (Program goal B).
4. Implement C# computer programs that are thoroughly documented and tested (generally of high quality and incorporating all principles of good design) (Program goal B).
5. Develop critical thinking skills through problem analysis, algorithm development, coding and testing (Program goal B; NHCC Core Ability Critical Thinking, comps. a, b, c, d).

### E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None

## **F. LEARNER OUTCOMES ASSESSMENT**

As noted on course syllabus

## **G. SPECIAL INFORMATION**

1. Knowledge of Human Cultures and the Physical and Natural World --Through study in the sciences, mathematics, social sciences, humanities, histories, languages, the arts, technology and professions.
2. Intellectual and Practical Skills - Including: Inquiry and analysis; Critical and creative thinking; Written and oral communication; Quantitative literacy; Information literacy; Teamwork and problem solving.