

North Hennepin Community College

CSCI 1120: Programming in C/C++

A. COURSE DESCRIPTION

Credits: 4

Lecture Hours/Week: *.*

Lab Hours/Week: *.*

OJT Hours/Week: *.*

Prerequisites:

This course requires either of these prerequisites

CSCI 1130 - Introduction to Programming in Java (CS0) (Minimum grade: 1.67 GPA Equivalent)

CSCI 1150 - Programming in C# for .NET (Minimum grade: 1.67 GPA Equivalent)

Corequisites: None

MnTC Goals: None

This course continues the study of the most popular computer languages. It covers the common procedural core of C and C++ languages: data types, expressions, operators, functions, pointers, and arrays. The course also includes elements of object-oriented programming: classes and objects.

Prerequisite: CSci 1130 or CSci 1150 with a grade of "C" or better

B. COURSE EFFECTIVE DATES: 08/27/1997 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Students will learn the common heritage of C++ with the ANSI C language (e.g. syntax, primitive types, iteration, conditional expressions, functions, arrays, pointers and dynamic memory allocation) as well as the object-oriented and unique aspects of programming with C++. Topics covered will include: Selection statements, repetition statements, functions, one and two-dimensional arrays, pointers, structures, file handling and classes.

D. LEARNING OUTCOMES (General)

1. Develop an understanding of basic programming concepts. (Discipline Goal A; NHCC ELOs 1,2 Critical Thinking, comp. a)
2. Demonstrate knowledge of the structure and common language heritage of C and C++ and the additional features and enhancements that C++ has to offer over C programming language. (Discipline Goal C; NHCC ELOs 1,2 Critical Thinking, comps. a, c)
3. Develop and use basic programming concepts. (Discipline Goal B; NHCC ELOs 1,2 Critical Thinking, comps. a, b, c)
4. Analyze the features and functionalities of two-C and C++ languages from the point of view of implementing and maintaining programming solutions. (Discipline Goal C; NHCC ELOs 1,2 Critical Thinking, comps. a, b, c)
5. Assess competitive advantages of C++ for programmers in the global job market. (Discipline Goal A; NHCC ELOs 1,2 Critical Thinking, comps. a, b, c, d)
6. Develop critical thinking skills through problem analysis, algorithm development, coding, and testing. ((Discipline Goals C, D; NHCC ELOs 1,2 Critical Thinking, comps. a, b, c)

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.