

# North Hennepin Community College

## CSCI 2400: Objective-C for Mobile Programming

### A. COURSE DESCRIPTION

Credits: 4

Lecture Hours/Week: \*.\*

Lab Hours/Week: \*.\*

OJT Hours/Week: \*.\*

Prerequisites:

This course requires any of these three prerequisites

CSCI 1120 - Programming in C/C++

CSCI 2001 - Object Oriented Programming (CS1)

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

Corequisites: None

MnTC Goals: None

The course teaches Objective-C programming utilizing Xcode tools package. The course explores fundamental OOP concepts. Other topics include pointers, memory management and Automatic Reference Counting. The basic Foundation Framework classes will also be introduced.

After completing this course, the students will be able to write Objective-C programs suitable for mobile applications running on iPhones and iPads.

Prerequisite: CSci 1120 or 1150 or 2001 with grade A

**B. COURSE EFFECTIVE DATES:** 04/02/2012 - Present

### C. OUTLINE OF MAJOR CONTENT AREAS

1. The course should teach Objective-C programming, building on the foundation of prior knowledge gained from an object-oriented programming course. The course should explore classes, objects, methods, data encapsulation and inheritance, emphasizing the common aspects with other languages. Other topics, e.g. memory management and Automatic Reference Counting, should be taught with explanation of the special way Objective-C is handling them. Programming basics (variables, loops, functions, etc.) should be just briefly surveyed.
2. The emphasis should be given on understanding of messaging, and interfaces vs. implementation, while demonstrating Objective-C-specific syntax. The course should utilize Xcode or another current, industry-accepted integrated development environment.
3. After completing this course, the students should be able to write Objective-C programs suitable for mobile applications running on iPhones and iPads.

### D. LEARNING OUTCOMES (General)

1. Acquire knowledgeable in the structure and syntax of Objective-C (NHCC ELO 1; Program goal A).
2. Possess skills in applying the fundamental programming concepts in Objective-C (NHCC ELOs 1, 2; Program goal B).
3. Develop critical thinking skills through problem analysis, algorithm development, coding, and testing (NHCC ELOs 1, 2; Program goal B).
4. Gain the ability to use messaging in Objective-C programming (NHCC ELOs 1, 2; Program goal C).

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

None

**F. LEARNER OUTCOMES ASSESSMENT**

As noted on course syllabus

**G. SPECIAL INFORMATION**

None noted