

North Hennepin Community College

CSCI 1035: Introduction to Computer Programming with Games

A. COURSE DESCRIPTION

Credits: 4

Lecture Hours/Week: *.*

Lab Hours/Week: *.*

OJT Hours/Week: *.*

Prerequisites: None

Corequisites: None

MnTC Goals: None

This is an introductory computer programming course. The students will engage in hands-on implementation of games and simulations in a graphics-enhanced development environment. The students will learn how to transform game scenarios into algorithms and programs, create user interfaces, and incorporate multimedia. Basic computer skills are necessary for success in this class.

B. COURSE EFFECTIVE DATES: 05/25/2010 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. In this course students will:
learn how to clearly express a logical game plan (scenario) in writing (algorithm);
2. apply higher-order problem-solving skills and modeling strategies to game development;
3. learn the foundation of data abstraction, modeling and processing;
4. create game scenarios and project plans;
5. learn how to implement decision making in computer programs;
6. familiarize themselves with a simplified development environment;
7. learn the approach to controlling movements in simulation;
8. create realistic flying, collisions, gravitation simulations, modeling physical world in algorithms;
9. gain experience in detecting and correcting programming errors;
10. create classes and objects and express them in computer language.

D. LEARNING OUTCOMES (General)

1. Formulate the algorithm for solving problems (Program goal B).
2. Translate algorithms into working programs using a simplified development environment, giving attention to details of the programming life cycle. (Program goal D).
3. Apply higher-order thinking and analysis process to abstracting the involved data (Program goal B).
4. Introduce the concept of efficient user experience (Program goal A)

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

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted