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:
This course requires all four of these prerequisite categories

1. Any one of these three groups
    1. Both of these groups
        1. Any one of these seven
            A score of 1 on test Exempt from taking Math placement test
            A score of 36 on test Accuplacer College Level Math
            A score of 22 on test ACT Math
            A score of 1148 on test MN Comprehensive Assessment Math
            A score of 1 on test Developmental Course Transfer Waiver-Mat
            MATH 0970 - Bridge to College Algebra (Minimum grade: 1.67 GPA Equivalent)
            MATH 0980 - Pre College Algebra (Minimum grade: 1.67 GPA Equivalent)

        And

        2. Any one of these eight
            A score of 1 on test Exempt from taking Reading placement tes
            A score of 78 on test Accuplacer Reading Comprehension
            A score of 21 on test ACT Reading
            A score of 1 on test Developmental Course Transfer Waiver-ENG
            A score of 18 on test ACT English
            ENGL 0950 - Preparation for College Writing II (Minimum grade: 1.67 GPA Equivalent)
            ENGL 0990 - Gateway Composition
            EAP 1260 - College Writing Skills Development (Minimum grade: 1.67 GPA Equivalent)

    Or

    2. A score of 108 on test Accuplacer ESL Reading Skills

    Or

    3. EAP 0900 - College Vocabulary Development

    And

2. One of these two
    A score of 115 on test Accuplacer ESL Sentence Meaning
    EAP 0930 - Academic Reading and Study Skills (Minimum grade: 1.67 GPA Equivalent)

    And

3. One of these two
    A score of 83 on test Accuplacer ESL Listening
    EAP 0980 - Academic Listening and Speaking (Minimum grade: 1.67 GPA Equivalent)

    And

4. A score of 6 on test ESOL Essay Writing Test Scores

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