

# **Course Outcome Summary**

#### **Required Program Core Course**

### **CIS267 Beginning Game Programming**

**Course Information** 

Division Business

Contact Hours 3 Total Credits 3

Prerequisites CIS250 (Computer Science II)

#### **Course Description**

The course will cover the fundamental principles and practices of designing and programming computer games. Students will write programs that demonstrate major lecure topics. Students will also design and implement complete computer games. The programs and games created will utilize a variety of programming techniques and tools, including; C++ programming language, graphics API, a game engine, software engineering, audio editing and playback, user input, imaged editing software, network programming, collision detection and game design.

This course is a required core course for students pursuing an AAS in Computer Science.

#### **Program Outcomes Addressed by this Course:**

Upon successful completion of this course, students should be able to meet the program outcomes listed below:

- A. Demonstrate the necessary technical knowledge and skills both in breadth and depth, to pursue the practice or advanced study of computer science.
- B. Distinguish the importance of life-long learning and how it relates to new technological developments in their field.
- C. Conceptualize the ethical and technical context of their computer science contributions and their obligations therein.
- D. Develop the communication, teamwork, and leadership skills necessary to function productively and professionally.

#### **Course Outcomes**

In order to evidence success in this course, the students will be able to:

- 1. Demonstrate the use of a game engine to create and test a game.
  - B. Distinguish the importance of life-long learning and how it relates to new technological developments in their field.
- 2. Create a program that uses collision detection.
  - A. Demonstrate the necessary technical knowledge and skills both in breadth and depth, to pursue the practice or advanced study of computer science.
- 3. Create a program that plays audio sound effects.
  - A. Demonstrate the necessary technical knowledge and skills both in breadth and depth, to pursue the practice or advanced study of computer science.



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- 4. Create a program that supports user control of on-screen items
  - A. Demonstrate the necessary technical knowledge and skills both in breadth and depth, to pursue the practice or advanced study of computer science.
- 5. Demonstrate ability to draw and animate sprites.
  - A. Demonstrate the necessary technical knowledge and skills both in breadth and depth, to pursue the practice or advanced study of computer science.
- 6. Create a complete computer game as part of a development team.
  - D. Develop the communication, teamwork, and leadership skills necessary to function productively and professionally.
  - C. Conceptualize the ethical and technical context of their computer science contributions and their obligations therein.

Date Updated: 01/09/2020 By: Zackary Moore