CS 177: UNITY GAME PROGRAMMING I

Citrus College Course Outline of Record

Heading	Value
Effective Term:	Fall 2021
Credits:	3
Total Contact Hours:	54
Lecture Hours :	54
Lab Hours:	0
Hours Arranged:	0
Outside of Class Hours:	108
Strongly Recommended:	CS 225.
Transferable to CSU:	Yes
Transferable to UC:	Yes - Approved
Grading Method:	Standard Letter

Catalog Course Description

This is the first course in Unity game programming using the C# programming language. The goals of this course are to provide introductions to event driven programming, game engine scripting, game engine class structures, learning to plan and to report on a significant programming project, learn how to work in programming teams, and learn to use standard game development environments, in particular the Unity3D development platform. 54 lecture hours.

Course Objectives

- Learn the basic aspects of the C# programming language.
- Use selection structures to navigate decisions in the context of game development.
- Use repetition structures to navigate loops in the context of game development.
- Build simple 2D games.
- Learn how to use the Unity game development software environment.

Major Course Content

1. Software development via the Unity development environment.
2. Introduction to variables
3. Introduction to operators
4. Understanding the basics of the C# programming language in the context of game development.
5. Understanding the usage of C# selections structures in the context of game development.
6. Understanding the usage of C# repetition structures in the context of game development.
7. Introduction to Functions
8. Introduction to Arrays
9. Introduction to Classes and objects
10. Creating a saving levels
11. How to add text to a scene
12. Adding a Start button
13. Calling scripts from buttons
14. Playing background music

Suggested Reading Other Than Required Textbook

The student will visit several programming online websites in order to analyze documentation about object oriented programming languages.

Examples of Required Writing Assignments

The student will create a flowchart and pseudocode before implementing the programming code for any given assignment.

Examples of Outside Assignments

Students will be required to complete the following types of assignments outside of the regular class time:
- Study course concepts
- Answer various programming questions
- Practice skills (i.e., writing programs and creating flowcharts).
- Read required materials.
- Solve programming problems
- Create programs that apply Object-Oriented programming techniques.

Instruction Type(s)

Lecture, Online Education Lecture