CSC 253 Advanced C# Programming

COURSE DESCRIPTION:

Prerequisites: Take CSC-153

Corequisites: None

This course is a continuation of CSC 153 using the C# programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test, debug, and implement objects using the appropriate environment.

Course Hours per Week: Class, 2. Lab, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completing requirements for this course, the student will be able to:

1. Create an advanced software application using the Microsoft C# programming language.
2. Debug an advanced software application written in the Microsoft C# programming language.
3. Test an advanced software application written in the Microsoft C# programming language.

OUTLINE OF INSTRUCTION:

I.   Review of Visual C# Basics
II.   Visual C# Features
III.   Graphics and Animation
IV.   Language-Integrated Query (LINQ) and Databases
V.   Recursion
VI.   Finite State Machines (FSM)
VII.   Regex
VIII.   Linked Lists
IX.   Graphs and Algorithms

REQUIRED TEXTBOOK AND MATERIAL:

The textbook and other instructional material will be determined by the instructor.