J. Sargeant Reynolds Community College
Course Content Summary

Course Prefix and Number: ITP 236   **Credits:** 4

Course Title: C# Programming II

Course Description: Focuses instruction in advanced object-oriented techniques using C# for application development. Emphasizes database connectivity and back-end development using the .NET Framework and database processing using LINQ and the Entity Framework. Prerequisite: ITP 136 or equivalent. Lecture 4 hours per week.

General Course Purpose: ITP 236 is a requirement for the Information Systems Technology AAS - Computer Programmer concentration. It is a course for students interested in developing advanced knowledge of C# programming and may be used as an elective for the Computer Applications and Web Development concentrations of the Information Systems Technology AAS degree.

Course Prerequisites and Co-requisites:
Prerequisite: ITP 136 or equivalent

Student Learning Outcomes:
Upon completing the course, the student will be able to
a. Develop a three-tier C# application using object-oriented architecture;
b. Use C# to build an Entity Framework layer to access and modify data;
c. Use C# to build a POCO (Plain Old CLR Object) business layer; and
d. Prepare C# for building user interfaces.

Major Topics to Be Included:
a. Object-oriented programming
b. Writing and handling events
c. Class extensions
d. LINQ
e. Entity Framework

Date Created/Updated (Month, Day, and Year): August 15, 2018