Course Prefix and Number: ITP 136

Course Title: C# Programming I

Course Description: Teaches the fundamentals of object-oriented programming and design using C#. Emphasizes program construction, algorithm development, coding, debugging, and documentation of applications within the .NET framework. Lecture 4 hours per week.

General Course Purpose: Required in Computer Programmer Career Studies Certificate, which also feeds into the IST AAS - Computer Programmer concentration. The course can also be used as an IT elective in any degree concentration.

Course Prerequisites and Co-requisites:
None

Student Learning Outcomes:
Upon completing the course, the student will be able to
a. Learn the basics of computer programming and program design;
b. Apply the fundamentals of object-oriented programming and design using C#;
c. Identify the concepts of object-oriented language, encapsulation, inheritance, and polymorphism; and
d. Develop and write programs within the .Net framework using C# programming.

Major Topics to Be Included:
  a. Introduction to computers and programming languages
  b. C# language fundamentals
  c. Processing data
  d. Strings and other data types
  e. Making decisions in a programming environment
  f. Handling exceptions
  g. Loops (while and for)
  h. Writing and reading files
  i. Arrays and lists
  j. Classes, objects
     1. Inheritance and polymorphism
     2. Abstract classes, methods, and properties
  k. Databases fundamentals

Date Created/Updated (Month, Day, and Year): March 22, 2019