RARITAN VALLEY COMMUNITY COLLEGE
ACADEMIC COURSE OUTLINE

CSIT 265 - Introduction to C#.NET

I. Basic Course Information

A. Course Number and Title: **CSIT 265 - Introduction to C#.NET**

B. New or Modified Course: **Modified**

C. Date of Proposal: Semester: **Fall** Year: **2018**

D. Effective Term: Fall 2019

E. Sponsoring Department: **Mathematics and Computer Science**

F. Semester Credit Hours: **3**

G. Weekly Contact Hours: **4** Lecture: **2**
Laboratory: **2**
Out of class student work per week: **5**

H. Prerequisites/Corequisites:
CSIT 103 - Computer Concepts and Programming or CSIT 105 – Foundations of Computer Science or Instructor's permission

I. Laboratory Fees: **Yes**

J. Name and E-Mail Address of Department Chair and Divisional Dean at time of approval
Lori Austin –lori.austin@raritanval.edu (Chair)
Sarah Imbriglio –sarah.imbriglio@raritanval.edu (Divisional Dean)

II. Catalog Description

CSIT 103 - Computer Concepts and Programming, or, CSIT 105 – Foundations of Computer Science, or, Instructor's permission. In this introductory course students will learn the syntax of the C# programming by developing graphical user interfaces (GUI) for the Windows platform.

III. Statement of Course Need

A. C#.NET was introduced in 2001 for Microsoft`s .NET platform. It is the main language for programming for the .Net platform. The .NET framework consists of a runtime environment for managing code execution as well as thousands of class libraries that can perform virtually any programming task.
The additional value that this course brings to the student is its syntactical similarity to JAVA, C/C++ and JavaScript as well as its popularity for programming on the Windows platform.

B. Lab is necessary for the students to practice using the Visual Studio Development Environment and for writing, compiling and debugging C# code via Windows forms applications.

C. The course is not designed for transfer.

IV. Place of Course in College Curriculum

A. Free Elective
B. This course is an program option for:
   1. Interactive Digital media & Web Development AAS

C. Computer Elective on the Computer and Programming Electives List
D. Programming Elective on the Computer and Programming Electives List
E. To see course transferability: a) for New Jersey schools, go to the NJ Transfer website, www.njtransfer.org; b) for all other colleges and universities, go to the individual websites.

V. Outline of Course Content

This course explores the following topics:

A. Introduction to C#
B. How to use the Visual Studio IDE
C. How to design a Windows form application
    a. Using Controls
    b. Handling Events
D. How to debug an application
E. Working with numeric and string data
F. Coding control structures
G. Methods and Event handlers
H. Exception Handling
I. Data validation
J. Arrays and Collections
K. Dates and strings
L. Multiform projects

VI. General Education and Course Learning Outcomes

A. General Education Learning Outcomes:

At the completion of the course, students will be able to:

1. Demonstrate proficiency in the use of an integrated development environment
2. Use C#.NET to write well designed programs to solve information processing problems (GE-NJ4)
3. Demonstrate proficiency in the use of an integrated development environment

B. Course Learning Outcomes:

At the conclusion of the course, students will be able to:

1. Know how to use the Visual Studio IDE to code, compile debug and test a C# program
2. Design a Windows GUI application written in C#.NET that is completely event driven.
3. Arrange C# program code in a logical, readable format.
4. Exhibit the skills needed to debug an application using breakpoints and Try/Catch/Finally blocks.
5. Incorporate .NET Framework classes into a C#.NET application.
6. Plan and compose a Windows GUI application from programming specifications.
7. Demonstrate C# language programming constructs such as:
    a. Language syntax
    b. IF…ELSE
    c. Looping(FOR and While)
    d. Functions
        i. With or without arguments
        ii. With or without return values
    e. Collections and Arrays

C. Assessment Instruments

1. Computer laboratory
2. Computer homework assignments
3. Computer code reviews

VII. Grade Determinants

A. Lab assignments
B. Homework projects
C. Final Exam
D. Project presentations

Methods for teaching and learning that may be used in the course:

A. Lecture/Discussion
B. Laboratory--Students will spend half of each class working on hands-on lab assignments
C. Student presentations of homework assignments

VIII. Texts and Materials

Suggested Textbook – Boehm, Anne and Murach, Joel, Murach's C# 2015, Mike Murach and Associates, 2016

The following statement should be included in the outline:
(Please Note: The course outline is intended only as a guide to course content and resources. Do not purchase textbooks based on this outline. The RVCC Bookstore is the sole resource for the most up-to-date information about textbooks.)

IX. Resources

A. Computer Lab for classroom instruction and exercises
B. Technology Support (An Integrated Development Environment for C#, Visual Studio 2015 or later)