Course Syllabus

Department: Computing Sciences

Date: November 2012

I. Course Prefix and Number: CSC 216

   Course Name: Introduction to C#

   Credit Hours and Contact Hours: 3 credit hours and 3 contact hours

   Catalog Description including pre- and co-requisites:
   This course is designed to present to the student the basic data structures necessary to design and write structured programs in C#. The topics covered DataTypes, Methods/Behaviors, Classes, Decisions, Looping Structures, Arrays, Collections, Windows Programming Events, Databases and Web-Based Applications. Prerequisite: CSC 115 with a grade of ‘C’ or better.

   Relationship to Academic Programs and Curriculum including SUNY Gen Ed designation if applicable:
   This course is a required course for the AAS Game Programming and Design degree program. This course is a prerequisite for the Capstone Project.

II. Course Student Learning Outcomes:
   Upon completion of the course the participant will be able to:

   a. Design and construct programs with methods/classes and to manipulate variables using structured programming techniques.

   b. Design and construct programs with appropriate Methods and/or Behaviors.

   c. Construct and use one and two dimensional arrays. They will be able to understand and use searching techniques, parallel arrays, copying and sorting techniques.

   d. Design and construct programs to run in a Windows environment.

   e. Construct programs to connect to a database or external file.

   f. Design and construct programs to be used in Web Applications.

College Learning Outcomes Addressed by the Course: (check each College Learning Outcome addressed by the Student Learning Outcomes)

☐ writing  ☑ computer literacy
☐ oral communications  ☐ ethics/values
☐ reading  ☐ citizenship
☐ mathematics  ☐ global concerns
☒ critical thinking  ☐ information resources
III. Assessment Measures (Summarize how the college and student learning outcomes will be assessed):

Student learning outcomes will be assessed through a variety of activities including the following:

<table>
<thead>
<tr>
<th>List identified College Learning Outcomes(s)</th>
<th>Specific assessment measure(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reading</strong></td>
<td>Students will be required to complete an in class final project that will assess reading and problem solving skills both internal and external to the source programs. Testing strategies will assess the ability to debug problems encountered in the problem solving and programming process. Students will be required to complete an in class final project that will assess reading and problem solving skills both internal and external to the source programs. Programming Problems Hands on projects will assess skills in reading.</td>
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<tr>
<td><strong>Critical Thinking</strong></td>
<td>Online text tests, given in a current online environment will assess the student’s ability to comprehend, interpret, analyze, and evaluate course content and reading materials Students will be required to complete an in class final project that will assess reading and problem solving skills. Programming Problems Hands on projects will assess skills in critical thinking (problem solving.</td>
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<tr>
<td><strong>Computer Literacy</strong></td>
<td>Online Tests will measure their comprehension of the course concepts as related to problem solving and programming. Programming Problems Hands on projects will assess skills in computer literacy.</td>
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IV. Instructional Materials and Methods

Types of Course Materials:
Textbook: text in C#

Methods of Instruction (e.g. Lecture, Lab, Seminar …):

Methods of Instruction
1. Lecture
2. Discussions
3. Demonstrations
4. Group programming
5. Programming

V. General Outline of Topics Covered:
A. Data Types and Expressions
B. Methods and Behaviors
C. Classes
D. Making Decisions
E. Arrays
F. Collections
G. Windows Programming
H. Programming Based on Events
I. OOP Features
J. Exception Handling
H. Working with Files/Databases
I. Web-Based Applications