VALENCIACOLLEGE

COP2360- C# Programming

Instructor: Dimas Sanchez

Phone: 407-582-1012

Office Room: 7-128

Email: Use Blackboard for all email

Office Hours:

Look at the link provided in Blackboard.

Prerequisite(s): Minimum grade of C in COP 1006

Co-requisite(s): None

Contact Hour Breakdown: CR 3 CLASS 3 LAB 0

Discipline: Computer Programming and Analysis

Catalog Description: A hands-on study of the Microsoft Visual C# programming language with emphasis on object-oriented programming. Topics include control structures, methods, arrays, exception handling and inheritance. Students will develop C# programs in both console and windows Modes.

Major Topics/ Concepts/ Skills/ Issues:

Overview of the Microsoft Visual Studio .NET IDE and the C# language. C#, an object-oriented programming language Variables, data types and expressions Control structures Methods Arrays Inheritance

Withdrawal Policy:

You must withdraw from class on or before the last day for withdrawal published in the Valencia website (http://valenciacollege.edu/calendar/) in order to receive a grade of W. You will not be permitted to withdraw after that date. Withdrawal is your responsibility--you will not be automatically withdrawn from this class. See the college catalog for further details on the withdrawal policy.

Academic Honesty and Conduct:

Each student is expected to behave appropriately in class. Any student caught cheating on an exam will receive a grade of zero on that exam. In addition, a course grade of "F" may be assigned at the instructor's discretion.

Evaluation:

Assignments	30%
Quizzes	30%
Activities	20%
Final Exam	20%

<u>The sum of these will determine a letter grade as follows:</u>

90 – 100	A
80 – 89	B
70 – 79	C
60 – 69	D
0 – 60	F

Major Learning Outcomes with Evidence, Core Competencies and Indicators

- Student will be able to **Identify** the elements of the Microsoft Visual Studio.net IDE
- Student will be able to **Look** up topics using the Help menu
- Student will be able to **Create** empty Console and Windows C# projects
- Student will be able to **Use** the Solution Explorer tool to manage a C# project
- Student will be able to **Access** and change the properties of a C# project
- Student will be able to **Run** existing C# programs
- Student will be able to **Define** the terms "Class" and "Object" and describe the relation between them.
- Student will be able to **Give** examples of classes and objects from the real life. • Student will be able to Define the term "Encapsulation".
- Student will be able to **Know** the meaning of the terms "public" and "private".
- Student will be able to **Use** the Help system to explore the properties and methods of the built-in classes (Explore the FCLFramwork Class library)

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- Student will be able to **Explain** the term “event-driven programming”.

- Student will be able to **Define** Variables and Constants and understand the relationship between variables and the memory.

- Student will be able to **Be** able to apply the C# naming conventions.

- Student will be able to **Differentiate** between a Value Type and a Reference Type.

- Student will be able to **Understand** when to apply type conversions.

- Student will be able to **Use** the basic C# operators and know the precedence among them.

- Student will be able to **Describe** “Operator Overloading".

- Student will be able to **Evaluate** conditions using relational and logic operators.

- Student will be able to **Design** and **create** programs using repetition control structures.

- Student will be able to **Design** and **create** programs using selection control structures.

- Student will be able to **Handle** program exceptions.

- Student will be able to **Describe** the signature of a method and call a method.

- Student will be able to **Know** the difference between Constructors and other methods.

- Student will be able to **Code** new methods including static methods.

- Student will be able to **Pass** a parameter by value versus by reference.

- Student will be able to **Create** overloaded methods and operators.

- Student will be able to **Establish** an array of variables and refer to individual elements in the array.

- Student will be able to **Pass/return** arrays to/from methods.

- Student will be able to **Explore** and use the built in Array class’ methods and properties.

- Student will be able to **Create**, from scratch, some basic array programs.

- Student will be able to **Manipulate** data in multi-dimensional arrays.

- Student will be able to **List** the benefits of deriving a new class from an existing class.

- Student will be able to **Know** how to access to members of the base class from the derived class.

- Student will be able to **Create** new classes using inheritance.

- Student will be able to **Override** methods.

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- Student will be able to **Describe** abstract classes and how they relate to polymorphism.