



**TRINITY VALLEY COMMUNITY COLLEGE  
ADMINISTRATIVE-MASTER SYLLABUS**

The Administrative- Master Syllabus is an administrative tool; it is **not intended to be distributed to students**. It is the intention of this Administrative-Master Syllabus to provide a general description of the course, outline the required elements of the course and to lay the foundation for course assessment for the improvement of student learning, as specified by the faculty of TVCC, regardless of who teaches the course, the timeframe by which it is instructed, or the instructional method by which the course is delivered. It is not intended to restrict the manner by which an individual faculty member teaches the course but to be an administrative tool to aid in the improvement of instruction. The Administrative-Master Syllabus will demonstrate that there is consistency and comparability in course offerings.

**Course Title**

Programming Fundamentals I

**Course Prefix and Number**

COSC 1336

**Department – Division**

Computer Science

**Course Type** – select from one of the following categories.

X - **Academic General Education Course** (from ACGM – but not in TVCC Core)

- **Academic TVCC Core Course**

- **WECM Courses**

**Semester Credit Hours: Lecture Hours: Lab/other hours**

Semester Credit Hours	Lecture Hours	Lab/Other* Hours
3	2	4

Other hours include practicum, clinical or other types of non-lecture instruction. \*If other, please specify: \_\_\_\_\_

## **Course Catalog Description**

Introduces the fundamental concepts of structured programming. Topics include software development methodology, data types, control structures, functions, arrays, files, and the mechanics of running, testing, and debugging. This course assumes computer literacy.

## **Prerequisites/co requisites**

COSC 1309 or approval of instructor

## **Topical Outline**

To introduce the student to the theory and practice of program design, testing, implementation and documentation. Upon successful completion of this course, the student should understand the syntax of a programming language by developing, testing, implementing and documenting several computer programs.

## **Course Learning Outcomes**

The student will have knowledge of the following:

1. How to start Visual Basic
2. The Windows form designer window
3. The solution explorer window
4. How to debug and run a Visual Basic project
5. Properties of the Windows form object
  - a. The name property
  - b. The text property
  - c. The StartPosition property
  - d. The size property
6. How to set and restore the value of a property
7. How to save a solution
8. How to close a solution
9. How to open an existing solution
10. How to work with controls:
  - a. Changing the property for more than one control at a time
  - b. Adding a text box control to the form
  - c. How to lock controls on a form
11. The toolbox window
12. Using the label tool
  - a. Setting the Text property
  - b. Setting the Location property

## **Course Learning Outcomes Continued:**

13. The Me.Close method
14. The Timer tool
15. Setting the FormBorderStyle property
16. The MinimizeBox , MaximizeBox and Controlbox properties
17. Task Object Event charts done by task
18. Task Object Event charts done by object
19. How to include graphics in the user interface
20. How to include different fonts in the user interface
21. The BorderStyle property
22. How to assign access keys
23. How to set the TabIndex property
24. How to assign a value to a property during run time
25. How to use the Focus method
26. How to internally document a program
27. How to write and understand arithmetic expressions
28. The VAL function
29. The Format function
30. How to align text within a control
31. How to create variables
32. How to select a data type for a variable
33. How to select a name for a variable
34. How to declare a variable
35. How to assign a value to an existing variable
  - a. Using the TryParse method
  - b. Using the Convert class
  - c. How to use a variable in an arithmetic expression
  - d. The scope and lifetime of a variable
  - e. Using a static variable
36. How to create named constants
37. The Option Explicit and the Option Strict statements
38. How to concatenate string data
39. The Inputbox function
40. The ControlChars.NewLine constant
41. How to designate a default button
42. Using the ToString Method to format numbers
43. Converting a string to uppercase or lowercase
44. The If Then Else statement
45. Nested If Then Else structures

## **Course Learning Outcomes Continued:**

46. The case selection structure
47. The selection structure
48. Comparison operators
49. Logical operators
50. Adding a group box to a form
51. Setting the TabIndex property
52. Using the Financial.Pmt method
53. Using the MessageBox.Show method
54. Coding a keypress event
55. Coding an enter event
56. The Is, Type Of...is and Like comparison operators
57. Creating an independent sub procedure
58. Generating random numbers
59. Radio buttons
60. List boxes
  - a. How to add items to a list box
  - b. How to use the SelectedItem and SelectedIndex properties
61. The repetition structures:
  - a. For/Next statement
  - b. Do Loop statement
  - c. Nested repetition structures
62. Using counters and accumulators

**Relationship to General Education Outcomes** – In addition to the core competencies, Trinity Valley Community College has established ten general education goals which specify knowledge and skills that students should gain from completing courses in the various component areas of the core curriculum. Information regarding curriculum and assessment as a means for the improvement of student learning through the general education component. (Select all that apply.)

Mark with an "X"	General Education Outcome
	A. To communicate clearly and effectively in both oral and written English.
	B. To improve reading skills focused on comprehending, analyzing, interpreting, and evaluating printed materials.
	C. To understand mathematical information and utilize mathematical skills.
	D. To demonstrate qualitative and quantitative critical thinking skills.
	E. To understand and appreciate cultural and ethnic diversity.
X	F. To utilize computer based technology in accessing information, solving problems, and communicating.
	G. To recognize and evaluate artistic achievements in the visual and performing arts.
	H. To improve basic understanding of political, economic, and social systems.
	I. To demonstrate knowledge of the physical universe and living systems.
	J. To develop skills and strategies to become an engaged learner.

**Required Text(s)**

The current edition of the textbook from the bookstore.

**Optional Text(s)**

None

**Material/Technology to be supplied by the student.**

If the student is taking this course as an Internet course, then the student is responsible for having access to the Internet.

The student will need a flash drive to use as a storage media.

If the student is taking this class face to face, they will also need a notebook, pen or pencil for taking notes, and 100 answer scantrons for quiz taking.

**Course Requirements/Grading System** – describe any course specific requirements such as research papers or reading assignments and the generalized grading format for the course; not intended to restrict the individual nature by which each faculty member who teaches the course determines course requirements and final student performance, but should offer consistency within reason for all sections taught for those departments without a standardized format.

**GRADING SYSTEM:**

The student’s grade will be determined by performance on quizzes, laboratory assignments and a final. The class instructor prepares the individual grade criteria with respect to the departmental syllabus.

***Approvals – the contents of this document have been reviewed and are found to be accurate.***

Prepared by	Signature	Date
Department Head	Signature	Date
Division Chair	Signature	Date
Vice President	Signature	Date