CompuScholar, Inc.
Alignment to North Carolina
"Computer Programming I"
Course Standards

DRAFT version 1.0

North Carolina Course Details:

Course Name:	Computer Programming I
Primary Cluster:	Business, Finance, and Information Technology
Course Code(s):	BP10 (6421)
Credit:	1
Grade Level:	9th-12th
State Standards	North Carolina DOE Blueprint PDF

CompuScholar Course Details:

Course Title:	TeenCoder: Windows Programming
Course ISBN:	978-0-9887070-0-9
Course Year:	2015

Note 1: Citation(s) may represent a subset of the instances where objectives are met throughout the course.

Introduction

TeenCoder: Windows Programming is a computer science course based on the Microsoft C# language. This document demonstrates how the course meets North Carolina **Computer Programming I** blueprint standards.

A. INTRODUCTION TO COMPUTER PROGRAMMING (20%)	CITATION(S)
1.00 Understand ethics, security, and the history of computer programming. (9%)	Chapter 1
1.01 Understand the evolution of computers and computer programming languages (3%)	Chapter 1
1.02 Understand numbering systems. (3%)	Chapter 4, Lesson 5
1.03 Understand ethics and security in the programming process. (3%)	Chapter 1, Lesson 4 Chapter 1, Lesson 5
2.00 Understand the solution development process. (11%)	Chapter 7, Lesson 3 Supplemental Lesson 6 Supplemental Team Project
2.01 Understand the programming process. (3%)	Chapter 2
2.02 Understand problem solving tools to design programming solutions. (5%)	Chapter 7, Lesson 3 Supplemental Lesson 6

2.03 Understand proper program documentation, code comments, Use Cases, and Requirements Definition. (3%)	Chapter 2, Lesson 3 Supplemental Lesson 6 Supplemental Team Project

B. THE VISUAL STUDIO PROGRAMMING ENVIRONMENT (14%)	CITATION(S)
3.00 Apply procedures to construct Windows forms. (6%)	Chapter 3 and throughout the course
3.01 Apply controls associated with the Windows form. (3%)	Chapter 3 and throughout the course
3.02 Apply the properties associated with controls. (3%)	Chapter 3 and throughout the course
4.00 Understand variables and naming conventions. (8%)	Chapter 4, Lesson 2
4.01 Understand variables and data types. (5%)	Chapter 4
4.02 Understand object naming and naming conventions and standards. (3%)	Chapter 12 Chapter 13

C. COMPUTER PROGRAMMING ELEMENTS (66%)	CITATION(S)
5.00 Apply programming and conditional logic. (23%)	Chapter 5
5.01 Understand different types of programming errors. (3%)	Chapter 10
5.02 Understand breakpoint, watch window, and try and catch to find errors. (3%)	Chapter 10
5.03 Apply operators and Boolean expressions. (3%)	Chapter 5
5.04 Apply decision-making structures. (6%)	Chapter 5
5.05 Apply looping statements. (8%)	Chapter 5
6.00 Apply tools and procedures to obtain and validate user input. (9%)	Chapter 2, Lesson 4 Chapter 6
6.01 Apply tools to develop menus, List Box and Combo Box objects. (3%)	Chapter 6
6.02 Apply tools to develop message, input, and dialog boxes. (3 %)	Chapter 3 Chapter 6
6.03 Apply procedures for validation of user input. (3%)	Chapter 5, Lesson 2 Chapter 5 Activity
7.00 Apply advanced logic (22%)	Chapters 14, 16, 17
7.01 Apply sub procedures/methods and user defined functions. (9 %)	Chapter 9

7.02 Apply one-dimensional arrays. (7%)	Chapter 11
7.03 Apply built-in Math functions. (3%)	Chapter 7
7.04 Apply built-in String Methods. (3%)	Chapter 8
8.00 Apply procedures to develop graphics applications. (12%)	Chapter 15
8.01 Understand coordinate systems. (3%)	Chapter 15
8.02 Apply procedures to create picture boxes using images. (4%)	Chapter 3, Lesson 2
8.03 Apply animation and graphic methods in a Windows form. (5%)	Chapter 15