

# Phoenix Christian Sr High School

## CSC200 Introduction to Computer Science Course Scope & Sequence

### **COURSE DESCRIPTION**

This class will prepare students for more advanced computer classes while teaching them problem solving and logical thinking skills. This class provides students with a brief introduction to different programming platforms. Students will be challenged to think logically while using artistic skills to create multiple projects through different programming platforms.

### **COURSE SCOPE AND SEQUENCE**

#### **First Quarter**

##### Art and Technology 3 Weeks

*Key Concepts:* Artistic Ability and Technology, Computer Animation Smoothness and Logic Progression.

*Assessments:* 2 Animations (1 Fun Animation, 1 Bible Story Animation)

*Biblical Integration:* Use this technology to animate a Bible story.

##### Websites 4 Weeks

*Key Concepts:* HTML Code and Basic Webpage Concepts: Home Pages, Links, Text, Graphics, and Animations. Discuss favorite hobbies, how do they reflect the Christian life styles. 1 Corinthians 6:12

*Assessments:* Three Page Favorite Hobby Web Site.

*Biblical Integration:* What choices should a Christian make? How do we weigh a decision?

##### DOS and Java 4 Weeks

*Key Concepts:* Basic DOS Commands, Navigating the File System, Saving and Compiling a Java Program. Programming in Java using the System.out.print statement, Defining Variables, The Basic Arithmetic Processes, Allowing for User Input, "If" Statements, Using Different Operators.

*Assessments:* Weekly Knowledge Tests.

*Biblical Integration:* Discuss how God works in syntax. Discuss how God put order into the world. Genesis 1

#### **Second Quarter**

##### Visual Basic 3 Weeks

*Key Concepts:* Visual Basic Main Screen, Labels, Text Boxes and Buttons, Variables, Arrays, Debugging, Looping, "If" Statements, Sub Routines, and Object Properties.

*Assessments:* Weekly Knowledge Tests.

*Biblical Integration:* Discuss how God works through what you do. 1 Corinthians 12:27-31

Visual Basic Programming 3 Weeks

*Key Concepts:* Creating a Program with Visual Basic.

*Assessments:* Two-Player Tic-Tac-Toe Program.

Computer Movie and Review 1 Week

*Key Concepts:* Movie pertaining to computers and gaming. How gaming evolved because of computers. Review for the final exam.

*Biblical Integration:* Discuss how Christians should act in their lifestyle. 1 Timothy 4:12.