

Unit 1: Computers and Computing (Completion Time: 4 weeks)

Modules:

0 Pseudocode

- Pseudocode is an analytical and programming tool that we have at our disposal which we use to present algorithms as succinctly as possible.

1 Scratch

- Scratch is a drag-and-drop programming language that we teach in CS50 because it allows us to introduce concepts without getting mired in syntax.

2 Variables

- A variable is a storage container for data that is capable of holding different values that may change or update as programs execute.

3 Data types

- Unlike many modern programming languages, C is a statically-typed language; it requires that every time you declare a variable, bringing it into existence, that you specify the data type of that variable.

4 Loops

- Loops are how we as programmers do the same thing over and over.

5 Boolean expressions

- Conditional branching using Boolean expressions are how we as programmers make decisions in our programs.

6 Statements

- Statements are among the simplest of programming elements; simply tell the computer to do something. That's it.

7 Syntax

- In this module, we example some of the finer points of programming in C, the syntax things to be on the watch for, and reassure everyone--yourself included--that within a remarkably short period of time, the syntax of programming will become second nature.