

Lecture 0 Notes

What is computer science and engineering?

Computer science is the study of computation. Computer engineering is the application of computer science towards the development of computer hardware and computer software. These disciplines require the application of logic, math, and physics; it is serious business.

CSE 201: An introduction to C++

This course introduces the art and science of computer programming using the C++ programming language. If you have never used a programming language before, this course will not be easy.

What is computer programming?

Computer programming is the process of creating a computer program. A computer program contains a sequence of instructions to be executed by the computer.

A programming language is a human-readable language that can be translated into machine-readable instructions. Programming language instructions that have not been converted into a computer program is known as source code. To convert source code into a program, we use a special program known as a compiler.

Command-Line Interface

The Command-Line Interface (CLI) provides an alternative way to use a computer, it is heavily favored by expert computer users. Unlike the Graphical-User Interface (GUI), the CLI does not have any buttons, menus, or text boxes. The CLI displays only text and user input only comes from the keyboard. Despite this limitation, the CLI can often provide more power and flexibility than a GUI.

Using a CLI involves typing instructions known as commands. Each command gets interpreted and executed by a special program known as a command shell. The most popular command shell is bash. Bash can be found on most Linux and Mac computers; it can easily be installed for Windows too.

– *Mark Swoope*