## **Lecture01\_COSC2511\_Intro\_Prg v2.pptx**

# Steps in Program Development

1. Define the problem
2. Outline the solution
3. Develop the outline into an algorithm
4. Check algorithm for correctness
5. Implement algorithm into a programming language
6. Run the program on the computer
7. Document and maintain the program

# Define the Problem

IPO Model - Inputs, Processes and Output

Break the problem into steps using the IPO model to provide you with the expected inputs, processes and outputs that are expected.

# Outline the Solution

Breaking the problem into smaller tasks or steps.

Sequence of steps

Repetition of steps

Selection / Choice of steps

Collection and storing of variables and constants

# Develop the outline into an algorithm

Expand the outline of the solution developed in step 2 into an algorithm.

An algorithm is a set of rules and instructions that are to be followed

# Pseudo Code

Like a rough draft it describes the steps of an algorithm or program in a detailed manner, yet it is easily readable, even to those that are not adept in coding.

# IDE

Integrated Development Environment

Essentially they are text editors that make coding seamless.