

# Session 4 : Programming Languages

Session Date : 07/05/2016

## Topic Overview

What is a program? Hello World and numerical computation in C. Python as a C alternative. Integers, floats, strings, and the meaning of type.

## Learning Objectives

By the end of the session, students will be able to:

- Appreciate differences between Python, C, and Bash
- Implement three versions of “Hello World” to learn the basics of program compilation and execution
- Explore basic types through programming exercises (integers, floats, strings)

## Before the Session

Before the session, students should:

- Try implement your own “Hello World” in the C programming language. Prepare questions for discussion
- Prepare to discuss the following terms: String, Integer, Float, Double, Boolean.

## During the Session

During the session on 07/05/2016 , we will:

- Write the same procedural logic in Python, C, and Bash, printing the same message to the terminal for all three programs (due 07/05/2016)
- Discuss differences between Python, Bash, and C

## After the Session

After the session, students should:

- Research PEP-8, the style guide for Python code
- Read through the Python 3 C api. Don't try to understand it; this is intended to make you appreciate that you stand on the shoulders of giants