**C++ Syllabus**

* Introduction to cpp
* modern cpp and the standard cpp
* Installation and setup
* Compilation process
* what is compiler
* compiler vs interpreter
* Building CPP programs
* What is compiler errors
* what is compiler warnings
* what is linker?
* what is linker errors?
* what is runtime errrors
* what is logic errors
* Overview of the structure of cpp program
* #include preprocessor directives
* comments
* the main() function
* namespaces
* basic input and output
* variables and constants
  + what is variables
  + declaring and initializing variables
  + global variables
  + C++ built-in primitives datat types
  + size of a variables
  + what is constanst
  + decalring and using a constant
* Arrays
  + What is an array
  + decalring and initializing arrays
  + accessing and modifying array elements
  + accessing array elements
  + Multidimensional arrays
* Operators
* Control flow statements
  + if
  + if else
  + nested if else
  + loops
    - for loop
    - while loop
    - do while loop
    - nested loopings
* Strings
* classes and objects
* inheritance
* polymorphism
* functional prograaming
* structs
* pointers