PROGRAMMING TOPICS : PRE-REQUISITES

SCJ1023 (Section 04 and 07)

Semester 2, 2012/2013

SELECTION

- **You should know how to develop programs that:**
  - work with relational operators
  - work with conditional statements: if, if/else, if/else if
  - use nested if statements
  - use logical operators: AND, OR, NOT
  - use the switch statement

REPETITION

- You must understand loops and nested loops.
- You must have a good understanding of counters.
- You must know some basic concepts of file manipulation
- **You must know how to develop programs that implement the above concepts utilising:**
  - the **while** loop structure
  - the **do-while** loop structure
  - the **for** loop structure

FUNCTIONS (void functions)

- You must appreciate the importance of modularity as applied in software development
- You must know how void functions (procedures) are developed and called in C++
- You must understand the role of prototypes
- You must know about parameter-less functions
- You must know the difference between actual and formal parameters

FUNCTIONS (referenced functions)

- Before proceeding you must have a firm grasp of calls, prototypes and the make up of void functions (procedures) in C++
- You must understand the difference between pass by value and pass by reference
- **In both types of functions you should be able to develop a small program using the concept of modularity (procedures)**

ARRAYS (one dimensional)

- You must understand and know how to work with one dimensional arrays
- You must understand and know how to work with an array of characters (string)
- You must understand and know how to use the **typedef** statement in a one dimensional array
- **You must know how to develop C++ programs using the concept of one dimensional arrays.**

ARRAYS (multidimensional)

- You must understand and know how to work with multidimensional arrays
- You must understand and know how to use the **typedef** statement for multidimensional arrays
- **You must know how to develop C++ programs using the concept of multidimensional arrays.**