

IT6008

Computer Programming 1



Course Aim To provide students with an overview of programming, problem-solving, testing and debugging. It explores many fundamental programming concepts with emphasis on applying theoretical knowledge to a practical situation. It will introduce students to problem-solving with a view to meeting user requirements and designing solutions to programming problems.

Short Title

Faculty EDICT

Credits 15

Pre-requisites None

Co-requisites None

Anti-requisites None

Version 3

Effective From February 2016

NQF Level 6

Student Contact hrs 90

Self-directed hrs 60

Other directed hrs

Total learning hrs 150

Learning

On successful completion of this course, students will be able to:

Outcomes

- 1 Describe and use primitive data types and basic data structures
- 2 Describe the sequence of steps that a computer takes to translate source code into executable code
- 3 Use diagrams to design solutions for programming problems from a problem description
- 4 Create and test programming solutions to problems using the Java programming language in accordance with best practice, industry standards and professional ethics and following programming and documentation conventions
- 5 Analyse and debug existing programs by following a test plan

NQF Sub-strand

Theoretical
Understanding

Theoretical
Understanding

Generic, Problem
Solving and
Analytical Skills

Practical
Application of
knowledge

Generic, Problem
Solving and
Analytical Skills