



## Aims

This course aims to introduce students to the foundation of programming. It will help them to have a good understanding of computer hardware, software and number systems. It will develop their problem solving skills, and formulate them using algorithm, flowchart and pseudocode. The students will also learn and use Python programming language to solve these problems.

## Learning outcomes

On completion of this course students should be able to:

- > Recognise the main parts of a computer
- > Demonstrate an understanding of how decimal numbers are presented in computers with binary and hexadecimal number systems
- > Demonstrate the ability to solve programming problem using algorithms, flowcharts and pseudocodes
- > Write Python codes to solve simple problems

## Required materials

Resources are provided on the e-Learning platform

## Course content

The following topics will be covered:

- > Computer basics
- > Number system
- > Algorithm, flowchart and pseudocode
- > Programming using Python 3

Further details of the course content will be advised in the first week of classes

## Contact hours

4 hours per week



## Assessment

Indicative weightings for each assessment item are outlined below

Assessment	Weighting
Class Tests	30%
Practical Test	10%
Participation/portfolio	10%
Final Exam	50%

### Tests consist of:

Computer basics & Number systems	10%
Algorithm, Flowchart & Pseudocode	10%
Programming concepts & Python	10%