Aims

This course aims to introduce students to computer systems. It will develop basic skills in hardware and software concepts and develop students’ understanding of number systems that are used by computers such as binary and hexadecimal numbers. The course will also develop skills in problem solving, algorithm and flowchart design, and introduce programming fundamentals using pseudo code.

Learning outcomes

On completing this course, students will be able to:

- Recognise the main parts of computer and its architecture diagram
- Demonstrate an understanding of how decimal numbers are presented in computers such as binary and hexadecimal
- Demonstrate the ability to solve programming problems using flowcharts and algorithms
- Solve the problems with pseudo code programming (coding fundamental).

Course content

The following topics will be covered:

- Computer basics
- Number system
- Algorithm and flowchart
- Pseudo code programming

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

Contact hours

4 hours per week

Required materials

Resources are provided on the e-Learning platform.

Assessment

Indicative weightings for each assessment item are outlined below:

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tests</td>
<td>30%</td>
</tr>
<tr>
<td>Participation / Portfolio</td>
<td>10%</td>
</tr>
<tr>
<td>Final exam</td>
<td>60%</td>
</tr>
</tbody>
</table>

Tests consist of:

- Computer systems 5%
- Number systems 5%
- Algorithms and flowcharts 10%
- Programming fundamentals 10%