

Liverpool John Moores University

Title: COMPUTING
Status: Definitive
Code: **4500TECYPC** (115844)
Version Start Date: 01-08-2016

Owning School/Faculty: Electronics and Electrical Engineering
Teaching School/Faculty: YPC International College (Kolej Antarabangsa YPC)

Team	Leader
Paul Otterson	Y

Academic Level: FHEQ4 **Credit Value:** 12 **Total Delivered Hours:** 48
Total Learning Hours: 120 **Private Study:** 72

Delivery Options

Course typically offered: Semester 2

Component	Contact Hours
Practical	24
Seminar	24

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Technology	AS1	Visual basic application	40	
Portfolio	AS2	Programming project	60	

Aims

To enhance knowledge & understanding of:

IT, computation and industry-standard software tools

Engineering design methods and constraints

To develop intellectual abilities in:

Ability to select and apply appropriate computer-based methods for modelling and analysing problems in electrical & electronic engineering

Ability to analyse systems, processes and components requiring engineering

solutions

Ability to produce solutions to problems through the practical application of engineering

To develop professional practical skills in:

The use of engineering IT tools (including programming languages where appropriate)

The design of a system, component, product or process

To extend transferable/key skills in:

The manipulation and sorting of data

The presentation of data in a variety of ways

The use of scientific evidence-based methods in the solution of problems

The use of general IT tools

The use of effective communication for life-long learning

Learning Outcomes

After completing the module the student should be able to:

- 1 Write simple programmes using basic constructs
- 2 Produce a Windows user interface
- 3 Produce a software application to solve a technical problem

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

Visual basic application	1	2	
Programming project	1	2	3

Outline Syllabus

Use of Windows® based software.

Use of JMU information system.

The programming environment.

Programming fundamentals, data types, variables, objects, assigning properties, programme statements.

Conditional statements and constructs

Looping or decision making statements and constructs.

Communicating with other Windows applications.

Learning Activities

By a series of seminars and practical sessions. Students will be encouraged to work independently.

Notes

This module is designed to provide a formal introduction to a programming language and its application to engineering problems.