

Liverpool John Moores University

Title: Pre Masters Computing
Status: Definitive
Code: **6600PMEC** (124397)
Version Start Date: 01-08-2021

Owning School/Faculty: Computer Science and Mathematics
Teaching School/Faculty: Study Group

| Team | Leader |
|-----------------|--------|
| Lonnie Readioff | Y |
| Corina Doran | |
| Michael Shaw | |

Academic Level: FHEQ6
Credit Value: 20
Total Delivered Hours: 97
Total Learning Hours: 200
Private Study: 103

Delivery Options

Course typically offered: Semester 2 and Summer

| Component | Contact Hours |
|-----------|---------------|
| Lecture | 10 |
| Practical | 50 |
| Seminar | 25 |
| Tutorial | 10 |

Grading Basis: 40 %

Assessment Details

| Category | Short Description | Description | Weighting (%) | Exam Duration |
|-----------|-------------------|-------------|---------------|---------------|
| Portfolio | AS1 | Portfolio | 50 | |
| Exam | AS2 | Examination | 50 | 2 |

Aims

This module aims to provide students with knowledge of the fundamental concepts within computer science and an undertaking of hardware, software and issues around design and usability. Students will understand how to design and write

programs as well as being able to understand problem solving skills in software design and development.

Learning Outcomes

After completing the module the student should be able to:

- 1 Demonstrate an in-depth knowledge and understanding of the core concepts of key technologies and physical infrastructure elements used in computing.
- 2 Critically examine the core concepts of the nature and development of software.
- 3 Explain how computing interacts with user professional issues.
- 4 Evaluate and apply the most appropriate IT applications and information handling techniques.
- 5 Demonstrate the ability to apply a critical appreciation of the subject area with reference to leading developments in the field.

Learning Outcomes of Assessments

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

| | | | |
|-------------|---|---|---|
| Portfolio | 3 | 4 | 5 |
| Examination | 1 | 2 | |

Outline Syllabus

Hardware – Key principles, types

Key concepts of computer architecture – representation of data and programs in memory, arithmetic/logic unit, registers and instruction sets

Historical, current and future trends.

Software – Key principles

Main types of software including operating systems, application software

The role of programming

The legal, economic and social professional issues.

Current state of the art programming

Learning Activities

Lectures, seminars, group work, computing laboratory work. Independent learning and self-directed study will support these activities.

Notes

This module will provide students with the knowledge and skills to prepare for progression to a postgraduate level programme in Engineering or Computing.

