

## Liverpool John Moores University

Title: Contemporary Concepts in Computer Science  
Status: Definitive  
Code: **6221COMP** (128020)  
Version Start Date: 01-08-2021

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

Team	Leader
Somasundaram Ravindran	Y
Martin Randles	

**Academic Level:** FHEQ6      **Credit Value:** 20      **Total Delivered Hours:** 44  
**Total Learning Hours:** 200      **Private Study:** 156

### Delivery Options

Course typically offered: Semester 1

Component	Contact Hours
Lecture	11
Practical	11
Tutorial	22

**Grading Basis:** 40 %

### Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	AS1	Research report on contemporary concepts in computer science.	50	
Technology	AS1	Solutions for a set of computational problems.	50	

### Aims

*The aim of this module is to introduce Computer Science topics that are used or significant potential to impact upon future applications in modern technology.*

## Learning Outcomes

After completing the module the student should be able to:

- 1 Independently evaluate research topics within Computer Science.
- 2 Assess the applicability of novel tools and complex techniques within a specified problem domain.
- 3 Critically evaluate emerging research directions in computer science, and their impact on society and business.

## Learning Outcomes of Assessments

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

Report	1	3
Technology	2	

## Outline Syllabus

*Topics will be selected that are currently provoking widespread interest as regards applications (current and potential) or research and development. Such topics include:*

- Information and Social Networks*
- Parallel Computation*
- Quantum computation*
- Declarative Programming Languages*
- Data mining*
- Bioinformatics*
- Multi-agent systems*
- Cloud Computing*

## Learning Activities

In lectures students will be introduced to new materials relevant to novel directions and applications of Computer Science. Tutorials and labs will enable the students to put some of the knowledge gained in lectures into practice through problem based learning.

## Notes

This module will develop an understanding of how computer science concepts, tools and techniques used in modern technology.