

## Liverpool John Moores University

Title: MOBILE COMPUTING  
Status: Definitive  
Code: **5116COMP** (121239)  
Version Start Date: 01-08-2021

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

Team	Leader
Gyu Myoung Lee	Y
Paul Fergus	

**Academic Level:** FHEQ5  
**Credit Value:** 20  
**Total Delivered Hours:** 55  
**Total Learning Hours:** 200  
**Private Study:** 145

### Delivery Options

Course typically offered: Semester 2

Component	Contact Hours
Lecture	22
Practical	22
Tutorial	11

**Grading Basis:** 40 %

### Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	AS1	Design coursework	50	
Report	AS2	Research into mobile technologies	50	

### Aims

*To develop an understanding of the theory and practice of building modern mobile computing system.*

*To introduce wireless communication and networking principles the support modern*

## *mobile computing systems*

*To provide an in-depth study of the application and network requirements of mobile computing systems.*

### **Learning Outcomes**

After completing the module the student should be able to:

- 1 Apply software technologies and methods to the development of a mobile computing system
- 2 Explain the technical requirements of a mobile computing system
- 3 Discuss mobile computing challenges and contemporary solutions to support them

### **Learning Outcomes of Assessments**

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

Design of a mobile system	1	2
Research on mobile technology	2	3

### **Outline Syllabus**

*Introduction to Mobile Computing*  
*Mobile Computing Platforms and Technologies*  
*Wireless Area Networks*  
*Wireless Cellular Networks*  
*Wireless Internet and Mobile IP*  
*Mobility Management*  
*Location Based Services*

### **Learning Activities**

Students will participate in lectures, tutorials, and practical lab sessions.

### **Notes**

Students will use their software development skills to design and develop a simple mobile application, that illustrates various challenges in the delivery of real-world mobile applications. Students will also examine contemporary mobile systems and use/enhance their research skills in producing a research report.