

Liverpool John Moores University

Title: Mobile Computing
Status: Definitive
Code: **6510ENGSBC** (119424)
Version Start Date: 01-01-2012

Owning School/Faculty: Engineering
Teaching School/Faculty: The Sino-British College

Team	Leader
Russell English	Y

Academic Level: FHEQ6
Credit Value: 12.00
Total Delivered Hours: 35.00
Total Learning Hours: 120
Private Study: 85

Delivery Options

Course typically offered: Semester 2

Component	Contact Hours
Lecture	20.000
Practical	15.000

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	Exam		50.0	
Essay	CW		50.0	

Aims

This module will provide students with an introduction to mobile computing with emphasis on mobile communication technology and mobile application development.

Learning Outcomes

After completing the module the student should be able to:

- LO1 Understand the concepts of wireless voice and data communication technologies
- LO2 Use mobile application frameworks to develop mobile applications
- LO3 Design mobile applications using appropriate human-computer interaction design methods

Learning Outcomes of Assessments

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

Exam	LO 1	LO 2	LO 3
coursework	LO 2	LO 3	

Outline Syllabus

Mobile technology overview; cellular networks; IEEE 802.11 wireless networks; wireless environment TCP/IP; global positioning systems; geolocation systems; Bluetooth; GSM; Mobile IP protocol; Java for mobile applications; iPhone SDK; Android SDK; low power and low resource computing; persistence; user interface guidelines.

Learning Activities

Delivered with a range of lectures and tutorials.

References

Course Material	Book
Author	Pahlavan, K; Krishnamoorthy, P
Publishing Year	2003
Title	Principles of Wireless Networks
Subtitle	
Edition	
Publisher	PHI/Pearson Education
ISBN	10: 0130930032

Course Material	Book
Author	Mednieks, Z; Dornin, L; Blake Meike, G; Nakamura, M
Publishing Year	2012
Title	Programming Android: Java Programming for the New Generation of Mobile Devices
Subtitle	
Edition	2

Publisher	O'Reilly Media
ISBN	10: 1449316646

Notes

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