

Module Specification

Module Summary Information

1	Module Title	Advanced Mobile Computing
2	Module Credits	20
3	Module Level	7
4	Module Code	CMP7163

5	Module Overview
Mobile application development often requires you as the developer to target a specific platform such as Android, iOS or Windows Mobile. An alternative option is to develop a mobile application that may be delivered through the web, thereby is independent of platform. This module will examine and make use of a wide range of tools, libraries and frameworks to facilitate the creation of web based mobile applications that are independent of operating system and hardware platform. You will learn how to structure and present a mobile application, work with sensor and location data, cloud based data storage solutions and how to create a rich user interaction experience. The module will be delivered using both lectures and practical classes on a weekly basis. Additional resources will be available to you on Moodle and in the library for self-study. A substantial part of the learning process will take place whilst you are constructing your coursework solution. The coursework will involve the analysis, design, development and evaluation of a web based mobile application.	

6	Indicative Content
Native vs Hybrid mobile development Responsive layouts, presentation and styling Client / Server communications Persistent data storage Multimedia User Interface Development Sensor data acquisition Future developments	

7	Module Learning Outcomes
On successful completion of the module, students will be able to:	
1	Analyse and break down a problem to yield the salient features that need to be developed.
2	Design an appropriate solution to the problem and features required.
3	Develop and apply current web standard compliant scripting to facilitate the creation of platform independent mobile applications.
4	Evaluate the effectiveness of the developed solution from a technical and user perspective.

8	Module Assessment		
Learning Outcome			
	Coursework	Exam	In-Person
1-4	X		

9	Breakdown Learning and Teaching Activities	
Learning Activities	Hours	
Scheduled Learning (SL) includes lectures, practical classes and workshops, peer group learning, Graduate+, as specified in timetable	48	
Directed Learning (DL) includes placements, work-based learning, external visits, on-line activity, Graduate+, peer learning, as directed on VLE	72	
Private Study (PS) includes preparation for exams	80	
Total Study Hours:	200	