Module Specification

Module Summary Information

1	**Module Title**	Wearable Computing
2	**Module Credits**	20
3	**Module Level**	6
4	**Module Code**	CMP6190

5	**Module Overview**

Wearables have the potential to make computer technology truly ubiquitous. With the emergence of small but powerful mobile computing devices and IoT (Internet of Things), there are more and more opportunities to exploit computing power on the move and in everyday life.

Although encompassing many forms, probably the most prevalent example of wearables is seen in the emergence of more and more powerful 'smart watches'.

This module explores the direction that wearables are taking and aims to equip students with the essential design and programming skills to develop their own robust, usable and ubiquitous applications for at least one of the most popular smart watch platforms (such as Google's Android Wear or Apple's watchOS).

6	**Indicative Content**

- Ubiquity in computing – use cases
- Wearable technologies – state of the union
- User Interface issues and guidelines
- Designing for the Watch platform (e.g. iOS / Apple Watch) – patterns, frameworks and architectures
- Implementing basic applications on a smart watch platform (e.g. iOS / Apple Watch)
- Testing and optimising smart watch applications
- Review and evaluation of design and implementation

7	Module Learning Outcomes On successful completion of the module, students will be able to:	
	1	Research, evaluate and discuss various approaches to deploy ubiquitous technologies that exploit the power of mobility, to select an appropriate wearable technology and present findings in an appropriate format.
	2	Examine, select and implement appropriate design patterns and frameworks for a chosen wearable platform.
	3	Appraise and apply general / platform-specific HCI and design and development guidelines and techniques for developing highly usable and intuitive wearable applications, making use of creative and problem solving skills.
	4	Justify and explain the chosen design and implementation strategies, including programming implementation style, when developing and deploying wearable applications.

8	Module Assessment		
Learning Outcome			
	Coursework	**Exam**	**In-Person**
1			**X**
2, 3, 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	52
Private Study (PS) includes preparation for exams	100
Total Study Hours:	200