COMP: Mobile, Social and IoT Computing

Module Title:	Mobile, Social and IoT Computing
Language of Instruction:	English

Credits:	10

NFQ Level:	8

Module Delivered In	1 programme(s)

Teaching & Learning Strategies:	Delivery will be mostly practical based and also a number of lectures. Learners will be based in a computer lab and have access to emerging technology devices relevant to the module.

Module Aim:	To provide learners with a theoretical knowledge of the emerging technologies that enable digital innovation and the practical skills to design and develop solutions including Internet of Things (IoT is the network of physical devices, vehicles, home appliances and other items embedded with electronics, software, sensors, actuators, and connectivity which enables these objects to connect and exchange data), mobile and social media applications integration.

Learning Outcomes	
On successful completion of this module the learner should be able to:	
LO1	Develop a hybrid mobile application using current tools and technologies
LO2	Develop an IoT application using current and emerging technologies, platforms and tools
LO3	Investigate the usage of emerging technologies for digital innovation
LO4	Apply creative and innovative design strategies to mobile, social media integration and IoT applications that enables digital innovation
LO5	Integrate theories and concepts of IoT, Social Media and Mobile APIs

Pre-requisite learning
Module Recommendations *This is prior learning (or a practical skill) that is recommended before enrolment in this module.*
No recommendations listed
Incompatible Modules *These are modules which have learning outcomes that are too similar to the learning outcomes of this module.*
No incompatible modules listed
Co-requisite Modules
No Co-requisite modules listed
Requirements *This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed.*
No requirements listed

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Module Content & Assessment

Indicative Content
Understanding of Emerging Technologies : IoT, Mobile and Social media Theory and concepts of Mobile devices application development, IoT platforms and technologies, APIs and communcations. Explore the usage and trends of emerging technologies used for digital innovation
Design Strategies Models, processes and lifecycles of emerging technology applications for digital innovation
Web Services and APIs Explore web services styles and API development
Mobile Application Development Practical aspects of hybrid mobile application development
IoT Practical aspects of IoT tools, platforms and technologies, M2M, smart devices, smart sensors

Assessment Breakdown	%
Project	50.00%
Practical	50.00%

No Continuous Assessment

Project				
Assessment Type	*Assessment Description*	*Outcome addressed*	*% of total*	*Assessment Date*
Project	Design, develop and test an IoT/Mobile/Social Media Application as a solution to a digital innovation opportunity	3,4,5	50.00	n/a

Practical				
Assessment Type	*Assessment Description*	*Outcome addressed*	*% of total*	*Assessment Date*
Practical/Skills Evaluation	Practical work which demonstrates the students ability to use the features and functionalities of IoT technologies, mobile and social media APIs	1,2,5	50.00	n/a

No End of Module Formal Examination

SETU Carlow Campus reserves the right to alter the nature and timings of assessment

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Module Workload

Workload: Full Time		
Workload Type	*Frequency*	*Average Weekly Learner Workload*
Practicals	12 Weeks per Stage	6.00
Independent Learning	15 Weeks per Stage	11.87
	Total Hours	250.00

Workload: Part Time		
Workload Type	*Frequency*	*Average Weekly Learner Workload*
Lecture	12 Weeks per Stage	3.00
Assignment	15 Weeks per Stage	5.93
	Total Hours	125.00

Module Delivered In

Programme Code	Programme	Semester	Delivery
CW_KWCCD_B	Bachelor of Science (Honours) in Creative Computing and Digital Innovation	7	Mandatory