STUDENT AND ACADEMIC SERVICES

MODULE SPECIFICATION

Part 1: Information			
Module Title	Information Systems Development 1		
Module Code	UFCF9F-30-1	Level	Level 4
For implementation from	2018-19		
UWE Credit Rating	30	ECTS Credit Rating	15
Faculty	Faculty of Environment & Technology	Field	Computer Science and Creative Technologies
Department	FET Dept of Computer Sci & Creative Tech		
Contributes towards	Software Engineering for Business [Sep][SW][Frenchay][4yrs] BSc (Hons) 2018-19 Software Engineering for Business [Sep][FT][Frenchay][3yrs] BSc (Hons) 2018-19		
Module type:	Standard		
Pre-requisites	None		
Excluded Combinations	None		
Co- requisites	None		
Module Entry requirements	None		

Part 2: Description
Educational Aims: See Learning Outcomes **Outline Syllabus:** Introduction to information systems: The general features and functions of information systems from a business perspective; real time and embedded systems Legacy architectures software and documentation; the issues associated with replacing or keeping and maintaining legacy systems User and system requirements, functional and non-functional requirements, organisation of system/software functional requirements in a requirements document. The purposes, objectives and activities of information systems development: establishing requirements, systems specification, analysis, design, development, testing, configuration,

implementation and maintenance.

The social and technical organisation of the development process. Technical roles and responsibilities and the role of the client.

Models of systems development; the systems development lifecycle and its various forms, phases, tools, techniques methods and deliverables.

Evaluation, critique and applicability of strategies for design and development.

Developing data, data flow, state and process models, and their use in creating requirements specifications for information systems development.

Overview of the issues in management of organisational data and introduction to relational databases and database design

Configuration management and the deployment of software releases; developing and applying user documentation and training materials as part of software development and deployment activities

Functional prototyping using open source platforms, tools and languages

Teaching and Learning Methods: The course will be delivered through a combination of lectures, tutorials and lab-based practical sessions. Lectures will cover the theoretical content, which will be reinforced in parallel through thematic tasks in the tutorial or lab-based practical sessions.

Some topics will be covered in tutorials led by the lecturers and/or tutors; these sessions will impart thematic knowledge and skills through tutor-guided mode of delivery and benefit the students by providing immediate feedback.

Practical sessions are designed to supplement almost all lecture topics and provide the students with an opportunity to solidify their theoretical knowledge and gain practical skills related to each lecture's theme. Most of the practical sessions will involve database design, achieving data quality, database implementation, designing industry standard data flow/state/process models and creating requirement specifications for information systems development.

Scheduled learning includes lectures, tutorials, and practical classes.

Independent learning includes hours engaged with essential reading, directed practical work in a computer lab, assignment preparation and completion etc. These sessions constitute an average time per level as indicated in the table below.

This module will involve 6 hours contact time per fortnight. The time will be divided between lecture sessions, tutorials and practical lab sessions. The module contact time will be 72 hours, with 28 hours spent in lectures and 44 hours in tutorial or lab-based practical sessions.

Over the course of the academic year students should expect to spend approximately:

Activity (Hours)
Contact time (72)
Assimilation and development of knowledge (148)
Exam preparation (40)
Coursework preparation (40)
Total study time (300)

Part 3: Assessment

The module is assessed by a 3 hour examination at the end of the teaching and also by coursework. The exam assesses the students' understanding of the theoretical aspects of the module. The coursework allows the student to demonstrate practical application of methodology, tools and techniques. The learning outcomes addressed by each form of assessment are set out in the Learning Outcomes section of this document.

A central plank of information system development practice, working productively in teams, forms a major element in students' practical engagement with the groupwork component of assessment for this module.

The coursework will be carried out in small groups of students commensurate with the complexity and scope of the specified coursework. This has the benefit of creating peer groups, providing a support network for learning, allowing for the consolidation and sharing and dissemination of prior learning and the practice, improvement and assessment of key transferrable skills.

Coursework deliverables will be assessed by a combination of individual and group work. 70% of the coursework marks will be allocated to the group and 30% will be reserved for each student's individual report/portfolio. The coursework demonstration and individual assessment will be carried out in class. Staff will provide on-going guidance to students on working in a group and the work of groups will be continuously monitored in workshop sessions so that problems and disagreements over 'contribution' can be resolved in a fair and equitable manner at the earliest possible opportunity.

The coursework deliverables will be an appropriate combination of models, artefacts and systems and software components (including data structures and source and executable code). As such, provision of a word count is inappropriate, but students will be given clear guidance as to the nature, scope and depth of the required deliverables.

Tutorial and workshop time will be allocated so as to allow formative feedback to be given as the coursework portfolio develops, to enable the tutors to spot and prevent plagiarism, to ensure the full and equitable participation of group members and to facilitate the marking of groupwork. Where the 'contribution' of particular group members can be clearly demonstrated to be greatly more or less deserving of the group mark awarded, an adjustment can be made (especially in the case of non-engagement); The adjustment being based largely on the ability of the student in question to demonstrate a full, detailed and critical understanding of the group deliverable during the presentation.

The referral coursework will be undertaken on an individual basis and will require the student to build upon the groupwork undertaken during the module through the production of a well-integrated and complementary set of deliverables. No presentation of this work will be required.

First Sit Components	Final Assessment	Element weighting	Description
Portfolio - Component B		50 %	Coursework portfolio
Examination - Component A	✓	50 %	Examination (3 hours)
Resit Components	Final Assessment	Element weighting	Description
Portfolio - Component B		50 %	Coursework portfolio
Examination - Component A	✓	50 %	Examination (3 hours)

Part 4: Teaching and Learning Methods	
Learning Outcomes	On successful completion of this module students will be able to:

	Module Learning Outcomes
MO1	Understand the benefits, general features and functions of information systems
MO2	Understand why a business case is needed and create an outline business case for a technology-enabled business solution, including an assessment of business benefits, impacts, risks and return on investment
MO3	Demonstrate an understanding of the Systems Development Life Cycle (SDLC) and the role of systems development approaches, methodologies, models, tools and techniques within the life cycle
MO4	Understand the fundamental components of, and the interactions between, technology solutions in a typical modern business environment.
MO5	Identify, select, justify and apply an appropriate set of tools, techniques and methods to support the analysis, development, delivery, release and configuration management of software products
MO6	Apply basic formal processes to construct, implement and exploit a well-designed relational database schema
MO7	Develop and test a small scale technology solution utilising an industry standard approach and a widely-used contemporary programming language
MO8	Specify and develop a user interface based on requirements

Contact Hours	**Contact Hours**	
	Independent Study Hours:	
	Independent study/self-guided study	228
	Total Independent Study Hours:	228
	Scheduled Learning and Teaching Hours:	
	Face-to-face learning	72
	Total Scheduled Learning and Teaching Hours:	72
	Hours to be allocated	300
	Allocated Hours	300

Reading List	*The reading list for this module can be accessed via the following link:* https://uwe.rl.talis.com/modules/ufcf9f-30-1.html

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