STUDENT AND ACADEMIC SERVICES

UWE Bristol | University of the West of England

MODULE SPECIFICATION

Part 1: Information			
Module Title	Requirements Engineering		
Module Code	UFCFSD-15-M	Level	Level 7
For implementation from	2018-19		
UWE Credit Rating	15	ECTS Credit Rating	7.5
Faculty	Faculty of Environment & Technology	Field	Computer Science and Creative Technologies
Department	FET Dept of Computer Sci & Creative Tech		
Contributes towards	Software Engineering [Sep][FT][Frenchay][1yr] MSc 2018-19		
Module type:	Standard		
Pre-requisites	None		
Excluded Combinations	None		
Co- requisites	Life Cycle Models and Project Management 2017-18		
Module Entry requirements	None		

Part 2: Description

Educational Aims: See Learning Outcomes.

Outline Syllabus: The syllabus includes:

Introduction to requirements engineering with an emphasis on the engineering dimension to the generic requirements engineering process.

The relationship between the requirements engineering process and the overall software development life cycle.

Requirements engineering process models including the state of the models and agile software development methods.

Methods and techniques for requirements elicitation, analysis, modelling, and specification taking into consideration legal, social, ethical and legal issues.

Functional and non-functional requirements with particular reference to methods for identifying and specifying non-functional requirements.

The Software Requirements Specifications Document and its significance.

Approaches to bridging the gap between business processes and systems, with particular emphasis on the relationship between business process models and system models.

Requirements management and the importance of the process of change management.

Formal Requirements Specifications.

Methods for Requirements Validation.

State-of-the-art and emerging requirements engineering paradigms, methods, techniques, and processes.

Teaching and Learning Methods: Scheduled learning:
This module will be taught by a combination of lecturing and tutoring in every weekly session. Students will be receiving learning material ahead in advance of the lectures; this will pave the ground for increased interaction during lecture/tutorials in addition to raising potential knowledge exchange between students with industrial background and tutors.

Independent learning:
Students will be expected to learn independently by studying directed readings ahead of weekly-taught sessions in addition to consulting the module's on-line forums. Supportive guidance will be provided to students regarding the most appropriate sources of information such as books, research and practical articles, lectures notes, and requirements specifications templates that will be made available, where possible, via the Blackboard VLE. Such independent learning will yield two outcomes:
It will contribute to higher quality independent learning and hence enhance the guidance and enrichment of the student learning experience; and
It will reinforce higher interactivity (with critical appraisal) in the module's key areas, initiated by individuals in lectures and the module's online forum, and hence it will improve the quality of the anticipated module's learning outcomes.

Contact Hours:
Two contact hours per week for both lecture and tutorial over a duration of twelve weeks.

Part 3: Assessment

The assessment strategy for this module comprises both a written examination and an assignment. The written examination comprises 50% of the module's assessment and is of two hours duration covering key aspects of the learning outcomes.

The assignment comprises the remaining 50% of the module's assessment and is related to requirements modelling exercises and critical evaluation of some requirements engineering issues.

First Sit Components	Final Assessment	Element weighting	Description
Written Assignment - Component B		50 %	Coursework
Examination - Component A	✓	50 %	Examination (2 hours)

Resit Components	Final Assessment	Element weighting	Description
Written Assignment - Component B		50 %	Coursework
Examination - Component A	✓	50 %	Examination (2 hours)

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

	Module Learning Outcomes
MO1	Demonstrate a critical understanding of the engineering dimension to the Requirements Engineering (RE) process and its proper positioning and utilisation in the overall software development life cycle model
MO2	Show detailed understanding of the generic requirements engineering process, and other RE process models
MO3	Select and apply particular requirements engineering methods and modelling techniques to particular types of problems, taking into consideration legal, social, ethical and professional issues
MO4	Distinguish between functional and non-functional requirements and know how to specify them using appropriate techniques
MO5	Analyse software requirements and discover conflicts that may arise among requirements
MO6	Provide an overview of business process modelling at enterprise level, and the relationship of business processes to the requirements for supporting computerised systems
MO7	Show critical understanding of the importance of bridging the gap between business processes and system models using state of the art methods and techniques including knowledge-driven and service- oriented requirements engineering frameworks
MO8	Critically assess a relevant RE research area using related journal conference papers, and other appropriate sources

Contact Hours	**Contact Hours**	
	Independent Study Hours:	
	Independent study/self-guided study	126
	Total Independent Study Hours:	126
	Scheduled Learning and Teaching Hours:	
	Face-to-face learning	24

	Total Scheduled Learning and Teaching Hours:	24
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	Hours to be allocated	150
	Allocated Hours	150
Reading List	*The reading list for this module can be accessed via the following link:* https://uwe.rl.talis.com/modules/ufcfsd-15-m.html	