



Module Specification

Requirements Engineering

Version: 2023-24, v2.0, 20 Mar 2023

Contents

Module Specification	1
Part 1: Information	2
Part 2: Description	2
Part 3: Teaching and learning methods	3
Part 4: Assessment.....	5
Part 5: Contributes towards	7

Part 1: Information

Module title: Requirements Engineering

Module code: UFCFSD-15-M

Level: Level 7

For implementation from: 2023-24

UWE credit rating: 15

ECTS credit rating: 7.5

Faculty: Faculty of Environment & Technology

Department: FET Dept of Computer Sci & Creative Tech

Partner institutions: None

Delivery locations: Not in use for Modules

Field: Computer Science and Creative Technologies

Module type: Module

Pre-requisites: None

Excluded combinations: None

Co-requisites: None

Continuing professional development: No

Professional, statutory or regulatory body requirements: None

Part 2: Description

Overview: Not applicable

Features: Not applicable

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.

Part 3: Teaching and learning methods

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.

Module Learning outcomes: On successful completion of this module students will achieve the following 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

Hours to be allocated: 150

Contact hours:

Independent study/self-guided study = 126 hours

Face-to-face learning = 24 hours

Total = 150

Reading list: The reading list for this module can be accessed at [readinglists.uwe.ac.uk](https://uwe.rl.talis.com/modules/ufcfsd-15-m.html) via the following link <https://uwe.rl.talis.com/modules/ufcfsd-15-m.html>

Part 4: Assessment

Assessment strategy: 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.

Assessment components:

Examination (First Sit)

Description: Examination (2 hours)

Weighting: 50 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4, MO5, MO6, MO7

Written Assignment (First Sit)

Description: Coursework

Weighting: 50 %

Final assessment: No

Group work: No

Learning outcomes tested: MO3, MO4, MO5, MO6, MO7, MO8

Examination (Resit)

Description: Examination (2 hours)

Weighting: 50 %

Final assessment: Yes

Group work: No

Learning outcomes tested:

Written Assignment (Resit)

Description: Coursework

Weighting: 50 %

Final assessment: No

Group work: No

Learning outcomes tested:

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Software Engineering [Sep][PT][Frenchay][2yrs] - Not Running MSc 2022-23