



Module Specification

Requirements Engineering

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Part 1: Information

Module title: Requirements Engineering

Module code: UFMFVH-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 Engineering Design & Mathematics

Partner institutions: None

Field: Engineering, Design and Mathematics

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: This module examines the contribution that knowledge of requirements makes to the production of systems. It considers a variety of different approaches to the requirements development process and considers their strengths

and weaknesses. Topics covered:

Rationale for requirements.

What is a requirement?

Stakeholders.

Examples of good and bad practice.

Placing requirements within the context of Systems Engineering:

What is Requirements Engineering?

Component parts of the Requirements Engineering process.

Characteristics of requirements.

Types of requirements.

Non-functional requirements.

Prioritising requirements.

Validating requirements.

Managing requirements.

Requirements Engineering tools.

Part 3: Teaching and learning methods

Teaching and learning methods: Scheduled Learning

There is an intensive block delivery of lectures, demonstrations and syndicated exercises. These are scheduled so that the lecture material is reinforced by practical exercises.

Independent Learning

It is important that learning is guided by the tutors to maintain students' focus during the course. However, following the course, independent learning is required to produce an assessed report.

Access and skills

All students will be directed and given guidance on how to make full use of the print and electronic resources available to them through membership of the university. This includes journals and resources available through web sites and information gateways, and relevant information from the Library's resources. Students will be encouraged to develop their information retrieval and evaluation skills, to enable them to effectively identify appropriate resources.

Blackboard

This module is supported by Blackboard, where students are directed to find all necessary module documentation and include guidance on further reading. Where appropriate, direct links to information resources will also be provided from within Blackboard.

Essential reading

Other required reading is provided via Blackboard or directly from the library, or the students' own company libraries.

Further Reading

Further Reading is required as part of the students' assignment activity, to ensure they are familiar with current research, current industry practice and materials specific to the subject chosen. Students will be guided towards relevant reading materials, but are also expected to employ their own initiative and discretion when

selecting appropriate material. Examples include relevant journals, company documents – such as technical reports and quality processes, as well as relevant.

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

MO1 Critically evaluate Requirements Engineering concepts and techniques which form the basis for the practice and development of Requirements Engineering.

MO2 Analyse and critique theoretical perspectives underlying the discipline that distinguish it from other disciplines.

MO3 Demonstrate an ability to use the wider literature, to identify different approaches to requirements engineering processes.

MO4 Critically evaluate the characteristics of requirements, to demonstrate the ability to select and implement appropriate concepts and techniques for requirements development and problem solving.

Hours to be allocated: 150

Contact hours:

Independent study/self-guided study = 115 hours

Face-to-face learning = 35 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/UFMFVH-15-M.html) via the following link

<https://uwe.rl.talis.com/modules/UFMFVH-15-M.html>

Part 4: Assessment

Assessment strategy: The assessment will cover the critical aspects of Requirements and their context within the engineering environment.

The report will be assessed based on the student demonstrating the Learning

Outcomes. The nature of the assessment will be a significant piece of individual work undertaken after the taught part of the module to allow the synthesis and evaluation of taught material in the individual's particular work context.

As a focused, intensive block delivery, the assessment aims to determine the student's ability to implement and reflect upon the skills learnt. The assessed report is to be submitted after approximately 8 weeks from the workshop.

The assessment requires demonstration of independent learning of theory and critical reflection of the student's work, both in the classroom and especially during the assignment period outside the classroom. Students are expected to be able to show through the reflective element how they have achieved the module's learning outcomes.

A mix of general and individual written feedback will be provided. The report is normally expected to be between 4000 and 5000 words in length.

Assessment tasks:

Report (First Sit)

Description: Report

Weighting: 100 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4

Report (Resit)

Description: Report

Weighting: 100 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Engineering Competence {Apprenticeship-UWE} [Frenchay] PGDip 2023-24

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