

Module Specification

Innovation and Professionalism

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Part 1: Information

Module title: Innovation and Professionalism

Module code: UBLMP5-15-3

Level: Level 6

For implementation from: 2025-26

UWE credit rating: 15

ECTS credit rating: 7.5

College: College of Arts, Technology and Environment

School: CATE School of Architecture and Environment

Partner institutions: None

Field: Architecture and the Built Environment

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: In this module, quantity surveying profession key developments such as sustainable practices, digital tools, and modular construction are explored. Evaluating and optimizing project designs through life cycle costing, value engineering, and carbon footprint analysis ensures economic and environmental sustainability. Additionally, the practical application of new technologies, especially Building Information Management (BIM), enhances project coordination and data management, despite challenges like training needs and implementation costs.

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Features: Not applicable

Educational aims: This module equips students with skills to optimize value in construction through progressive digitisation of the quantity surveying profession. It emphasizes whole life costing for sustainability, health and safety in construction, and technological innovation for efficiency with a special focus on Building Information Modelling (BIM). Ethical considerations are integrated throughout, underpinning all areas of study.

Outline syllabus: The precise content of the syllabus will reflect current developments and debates in the quantity surveying profession including some of the following:

Facilities Management

Occupation costs; maintenance and occupation costs related to function, performance and specification; built asset management; obsolescence, rehabilitation and refurbishment; life cycle costing; data requirements and availability; uncertainty and errors in forecasting.

Risk and Uncertainty

Uncertainty in estimating data; accuracy in forecasting; ability to predict lowest tender; deterministic and probabilistic estimating; improving the quality of estimates; qualitative and quantitative risk assessment; contingency and risk allowances and sensitivity analysis.

Value Optimisation

Using cost modelling and analytics of data to add value; value management; value engineering; value analysis; cost benefit analysis; developments in procurement; effect of taxation and capital allowances; examples in the context of project evaluation and , sustainable construction including embodied carbon assessment.

Whole Life (Cycle) Costing

Data requirements and availability; uncertainty and errors in forecasting; occupation costs; maintenance and occupation costs related to function, performance and specification; facilities management; obsolescence, rehabilitation and refurbishment.

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The scope for Quantity Surveyors to influence Health & Safety and Occupational Health through all stages of the construction process

Technology Applications

Technological and computer applications for enhancing the efficiency of the construction industry through the RIBA Stages by the use of modelling techniques and innovation

Ethics will be considered thematically through relevant areas of the module

Part 3: Teaching and learning methods

Teaching and learning methods: Learning approaches will comprise:

Lectures in all topic areas regularly supported by specialist speakers and practitioners.

Workshops with supporting reading designed to encourage students to develop their knowledge of the theories explained in the lectures and their application in practice.

Computer based workshops to enable to develop an understanding of a range of cost modelling techniques and the development of relevant IT skills competence to support their practical application.

Materials will be available on Blackboard to support the module content with reference materials, exercises and related commentaries and video clips.

Scheduled learning includes lectures, seminars, tutorials, practical classes and supported workshops

Independent learning includes hours engaged with essential reading, case study

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preparation, assignment preparation and completion etc. These sessions constitute an average time per level as indicated below.

Activity (hrs) Contact time (36) Assimilation and development of knowledge (84) Exam preparation (30) Total study time (150)

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

MO1 Identify and critically examine key current developments impacting on the construction industry and quantity surveying profession which determine the value and broader commercial success of construction.

MO2 Evaluate the techniques used to evaluate and optimise construction project designs and property development proposals in terms of total project costs, whole life costs and carbon emissions accounting.

MO3 Critically reflect on the practical application of new technologies in the construction industry, focusing on exploration and critical evaluation of the impact of Building Information Management (BIM).

Hours to be allocated: 150

Contact hours:

Independent study/self-guided study = 114 hours

Face-to-face learning = 36 hours

Reading list: The reading list for this module can be accessed at readinglists.uwe.ac.uk via the following link <u>https://uwe.rl.talis.com/modules/ublmp5-15-3.html</u>

Part 4: Assessment

Assessment strategy: The Strategy:

Here it is expected that students gain a deep understanding of the content of the module supported by current research and an appreciation of how quantity surveying services are applied in industry.

The two tasks detailed below have been selected for their complimentary nature and their ability to bring out different academic skill in the student. It will also give the student an opportunity to critically reflect on the material from taught sessions and contextualise this against prior learning. The format lends itself to the student making new connections with existing knowledge which should embed the learning as they prepare for leaving the university and/or potentially going on to further study.

The Assessment:

Examination (2000 words) - A time limited exercise which takes the form of a 24hour online examination. No less than a week prior to the commencement time, a question bank will be provided to students, from which select questions will be identified at the beginning of the 24-hour period.

Report (1000 words) - a reflective report on supported practical learning that takes place during tutorials.

Resit Examination - a similar structure to that described above, which may include some question changes.

Resit Report - a similar brief to that described above, which may include some topic changes.

Formative Feedback - During tutorials formative assessment discussions will take place to facilitate the students' deep understanding. It is also expected that the students will engage with the digital tools which are designed to develop an appreciation of the application of BIM methods.

Assessment tasks:

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Examination (Online) (First Sit)

Description: Online Examination (2000 words) 24-hour seen assignment Weighting: 75 % Final assessment: Yes Group work: No Learning outcomes tested: MO1, MO2

Report (First Sit)

Description: Report (1000 word equivalent) Weighting: 25 % Final assessment: No Group work: No Learning outcomes tested: MO1, MO3

Examination (Online) (Resit)

Description: Online Examination (2000 words) 24 hour seen assignment Weighting: 75 % Final assessment: Yes Group work: No Learning outcomes tested: MO1, MO2

Report (Resit) Description: Report (1000 word equivalent) Weighting: 25 % Final assessment: No Group work: No Learning outcomes tested: MO1, MO3

Part 5: Contributes towards

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Quantity Surveying and Commercial Management [Frenchay] BSc (Hons) 2023-24

Quantity Surveying and Commercial Management [AustonSingapore] BSc (Hons) 2025-26

Quantity Surveying and Commercial Management [AustonSingapore] BSc (Hons) 2025-26

Quantity Surveying and Commercial Management [BIET] BSc (Hons) 2025-26

Quantity Surveying and Commercial Management [BIET] BSc (Hons) 2025-26

Quantity Surveying and Commercial Management

{Foundation}[Sep][SW][Frenchay][5yrs] BSc (Hons) 2021-22

Quantity Surveying and Commercial Management {Foundation} [Frenchay] BSc (Hons) 2022-23

Quantity Surveying and Commercial Management [Frenchay] BSc (Hons) 2022-23

Quantity Surveying and Commercial Management [Frenchay] BSc (Hons) 2022-23

Quantity Surveying and Commercial Management {Apprenticeship-UWE} [Frenchay] BSc (Hons) 2022-23