



Module Specification

BIM in Design Coordination

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Part 1: Information

Module title: BIM in Design Coordination

Module code: UBLMGW-15-M

Level: Level 7

For implementation from: 2024-25

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: Not applicable

Features: Not applicable

Educational aims: See Learning Outcomes

Outline syllabus: The syllabus includes:

BIM and the design process;

Design information workflow;

Worksharing of design information;

Collaborative practices at the design stage;

Generation, reviewing, analysis, simulation, and coordination of design information;

Role of BIM in predicting and providing solutions at design stages;

Interoperability issues in design data exchange;

Role of BIM in predicting and solving construction, safety, environmental performance, and maintenance issues at the design stage;

New directions and developments in BIM-enabled design process.

Part 3: Teaching and learning methods

Teaching and learning methods: The module is delivered in five study days for face-to-face teaching (i.e., Block Days), which includes a series of lectures, seminars, and workshops.

- Lectures and seminars aim to support students' independent learning by exploring deeper issues about the use of BIM at the design stages and receiving formative feedback. Occasional speakers will be invited to provide up-to-date material and context to the applications of the subject area.
- A series of workshops are designed to provide knowledge and practical skills in the use of BIM processes and technology at the design stages.
- Students will support their learning by working on a collaborative group work design project throughout the semester to demonstrate their knowledge through practical implementation.
- Students work will be presented in class for peer critical evaluation and assessment.

The presentations will also enable students to develop their skills and capabilities in analysing and negotiating problems, making decisions, and communicating solutions to a large audience.

- Directed reading examining the key principles and relevant criteria relating to several topics of importance to BIM in design coordination. The implications of using BIM in the design phase by construction professionals and other stakeholders are also examined by bringing together the BIM-enabled design and collaborative aspects of the industry.
- Technology-aided means such as recorded lectures and Virtual Learning Environments (VLEs) are also employed to support learning.

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

MO1 Apply and critically evaluate the current use of BIM tools throughout the various stages of the design process (e.g., generation, reviewing, analysis, simulation, and coordination of design information) and emerging technological advancements in this area.

MO2 Analyse the wider range of BIM processes and tools and select appropriate solutions, recognising the importance of communication and coordination of design information.

MO3 Recognise and assess the benefits of BIM to support collaborative practices in a multidisciplinary team working on a design project.

MO4 Apply and assess work-sharing methods and design information techniques.

Hours to be allocated: 150

Contact hours:

Independent study/self-guided study = 120 hours

Face-to-face learning = 30 hours

Total = 150

Reading list: The reading list for this module can be accessed at [readinglists.uwe.ac.uk](https://rl.talis.com/3/uwe/lists/4E47D4D5-9BF1-2F96-338A-D759956F3CCE.html?lang=en) via the following link <https://rl.talis.com/3/uwe/lists/4E47D4D5-9BF1-2F96-338A-D759956F3CCE.html?lang=en>

Part 4: Assessment

Assessment strategy: This module's assessment strategy involves (1) a presentation and (2) a written piece of work to reflect on BIM processes and technology applied at the design stages:

- (1) Presentation. This assessment evaluates students' practical skills in planning and applying BIM processes and technology throughout the design stages. Software is used to support students in their learning process. Students are expected to work collaboratively on a real-life case study to provide a real-life experience of using BIM in design workflows, which needs to be delivered through a group presentation.
- (2) Reflective report: Students are expected to prepare individually a reflective written piece of work to demonstrate their knowledge of the application of BIM at design stages and in practice. Students need to understand the strengths and limitations of current and emerging BIM processes and technology at the design stages and current and emerging research areas in the topic. The report is a 1600-word report.

The strategy for the resit goes as follows:

- 1.Students who fail the presentation must work individually for the resit. The project brief is the same, but there are a few minor changes, so it applies to an individual submission.
- 2.The reflective report is the same as the first sit brief.

Assessment tasks:

Presentation (First Sit)

Description: Group work practical skills assessment with a presentation.

Weighting: 60 %

Final assessment: No

Group work: Yes

Learning outcomes tested: MO1, MO2, MO3, MO4

Reflective Piece (First Sit)

Description: Individual written piece of work to reflect on BIM processes and technology applied at the design stages

Weighting: 40 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO3

Presentation (Resit)

Description: Individual practical skills assessment with a presentation.

Weighting: 60 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4

Reflective Piece (Resit)

Description: Individual written piece of work to reflect on BIM processes and technology applied at the design stages.

Weighting: 40 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO3

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Civil Engineering [Frenchay] MSc 2024-25

BIM in Design, Construction and Operation [Frenchay] MSc 2024-25

BIM in Design, Construction and Operation [Frenchay] MSc 2024-25

Construction Project Management [Frenchay] MSc 2024-25

Construction Project Management [Distance] MSc 2024-25

Construction Project Management [Distance] - Withdrawn MSc 2023-24

Construction Project Management [Frenchay] MSc 2023-24

Civil Engineering [Frenchay] MSc 2023-24

Quantity Surveying [Frenchay] GradDip 2023-24

Quantity Surveying [Frenchay] GradDip 2022-23

Civil Engineering [Sep][FT][Frenchay][4yrs] MEng 2021-22

Civil and Environmental Engineering [Sep][SW][Frenchay][5yrs] - Not Running MEng
2020-21

Civil Engineering [Sep][SW][Frenchay][5yrs] MEng 2020-21

Civil and Environmental Engineering [Sep][PT][Frenchay][7yrs] MEng 2018-19

Computational Architecture [Frenchay] MSc 2024-25