



Module Specification

BIM in Construction Operations

Version: 2026-27, v3.0, Approved

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	6

Part 1: Information

Module title: BIM in Construction Operations

Module code: UBLMHF-15-M

Level: Level 7

For implementation from: 2026-27

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: This module is about Building Information Modelling (BIM) in the context of construction operations. It examines how BIM integrates people, processes, and technologies to enhance collaboration, automate workflows, and improve project performance. Students will engage with key themes including cultural and collaborative aspects, the transition from design to manufacturing, buildability and clash detection, and planning with BIM. The module also highlights how BIM supports real-time monitoring, cost and time management, and as-built

documentation, preparing students to leverage BIM tools in real-world construction scenarios.

Features: Not applicable

Educational aims: This module aims to develop students' knowledge and critical understanding of how Building Information Modelling (BIM) supports and transforms construction-phase activities.

Outline syllabus: Topics covered are likely to include, but not limited to:

BIM for construction operations

Construction schedules and logistics using BIM to communicate and evaluate project activities

Predicting, identifying and solving constructability issues

BIM for scenario forecasting

BIM for construction system design

BIM for site utilisation planning

BIM for phase planning

New directions and developments in BIM enabled construction operations

Part 3: Teaching and learning methods

Teaching and learning methods: The module is delivered through a blended learning approach combining lectures, technical workshops, group consultation sessions, and independent learning activities. Core concepts and tools related to the application of BIM in the construction phase are introduced through lectures, supported by guided reading and digital learning materials. Students apply these

concepts in a project scenario using a fully designed site and building model to simulate digital construction planning and coordination.

Students are assigned defined roles within project groups and are required to work collaboratively to plan and present a BIM-enabled construction delivery strategy.

Learning is structured around a series of Block Days, which include morning lectures (to introduce theoretical and practical content) and afternoon technical sessions, where each group meets directly with the tutor team to receive group project support. The learning experience is further supported by pre-session technical video content and quizzes, hosted on Blackboard, which prepare students for each review session. Engagement with these materials contributes to online learning activity tracking and encourages independent skill development.

Students receive formative feedback throughout the module via live Q&A sessions, progress reporting, peer discussions, and tutor reviews of their developing project work. They also receive exposure to real-world practices through guest lectures from industry professionals. The learning experience is designed to promote the integration of theory and practice, technical proficiency with BIM tools, critical analysis of construction methods, and collaboration across project roles, reflecting real-world digital construction team dynamics.

Methods used include:

Face-to-face lectures and guest lectures to introduce key concepts, digital workflows, and construction-phase applications of BIM;

Workshop sessions providing structured tutor and technical team-led feedback during project development;

Pre-session technical videos and quizzes to support flipped learning and technical skill-building;

Directed reading and industry guidance to support evidence-based decision-making;

Individual and group-based peer learning through project collaboration, review, and discussion;

Presentations by the students will also be used to enable students to develop the skills and capabilities to analyse problems, negotiate, make decisions and present solutions to problems. Collaborative aspects of these presentations will be delivered through a pre-recorded video presentation;

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

MO1 Critically evaluate the use of BIM in construction operations, including site utilisation, phase planning, and informed decision-making to support project efficiency.

MO2 Apply and assess BIM tools and processes to simulate construction schedules, logistics, buildability, and clash detection, informing the design of efficient construction system solutions.

MO3 Plan, evaluate, and communicate construction activities using BIM within a multidisciplinary team, demonstrating collaborative problem-solving in a construction context.

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](https://uwe.rl.talis.com/modules/ublmhf-15-m.html) via the following link <https://uwe.rl.talis.com/modules/ublmhf-15-m.html>

Part 4: Assessment

Assessment strategy: The Assessment:

Presentation - The module is assessed through a single summative task: a group presentation that reflects the collaborative planning and coordination of a

construction-phase BIM strategy. Each student takes on an industry-aligned role and is responsible for developing and presenting role-specific outputs. Combined, the group is responsible for delivering a coordinated, BIM-based construction delivery strategy that responds to the requirements of the proposed client project. The assessment enables students to apply BIM tools, digital workflows, and relevant industry standards to a real-world construction scenario, demonstrating both technical competence and critical thinking. Groups are required to communicate their proposed construction delivery strategy through a professionally produced pre-recorded presentation, followed by a live, in-person Q&A session designed to assess individual understanding, critical thinking, and engagement with the project.

Resit Presentation - The group presentation follows the same structure as the first sit, with the only difference being the group formation. Students will be placed in new groups formed from the resit cohort, with the number of members and assigned roles determined by the module leader after the first sit results.

Assessment tasks:

Presentation (First Sit)

Description: Group Presentation (maximum 25 mins)

Weighting: 100 %

Final assessment: Yes

Group work: Yes

Learning outcomes tested:

Presentation (Resit)

Description: Individual presentation (maximum 10 minutes)

Weighting: 100 %

Final assessment: Yes

Group work: Yes

Learning outcomes tested:

Part 5: Contributes towards

This module contributes towards the following programmes of study:

BIM in Design, Construction and Operation [Frenchay] MSc 2025-26

Construction Project Management [Frenchay] MSc 2025-26

BIM in Design, Construction and Operation [Frenchay] MSc 2026-27

Construction Project Management [Frenchay] MSc 2026-27

BIM in Design, Construction and Operation [Frenchay] MSc 2026-27

Construction Project Management [Frenchay] MSc 2026-27

Construction Project Management [Frenchay] MSc 2025-26