



## MODULE SPECIFICATION

Part 1: Information			
Module Title	BIM in Design Coordination		
Module Code	UBLMGW-15-M	Level	Level 7
For implementation from	2020-21		
UWE Credit Rating	15	ECTS Credit Rating	7.5
Faculty	Faculty of Environment & Technology	Field	Architecture and the Built Environment
Department	FET Dept of Architecture & Built Environ		
Module type:	Standard		
Pre-requisites	None		
Excluded Combinations	None		
Co- requisites	None		
Module Entry requirements	None		

Part 2: Description
<p><b>Educational Aims:</b> See Learning Outcomes</p> <p><b>Outline Syllabus:</b> The syllabus includes:</p> <p>BIM and the design process;</p> <p>Design information workflow;</p> <p>Worksharing of design information;</p> <p>Collaborative practices at the design stage;</p> <p>Generation, reviewing, analysis, simulation, and coordination of design information;</p> <p>Role of BIM in predicting and providing solutions at design stages;</p> <p>Interoperability issues in design data exchange;</p>

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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.

**Teaching and Learning Methods:** The module is delivered by way of a blended learning approach using live time collaborate on-line lectures. Key lectures will be used to develop certain technical and conceptual aspects of the syllabus. Students will support their learning by tracking a live or recently completed project. Tutorials and workshops will be used to support the students' own research and to challenge their knowledge where it is too narrow. Students' work will also be exposed to peer critical evaluation through discussion. Use of university's virtual learning environment discussion facilities in Blackboard will be made to ensure that distance learning students are actively engaged in their learning.

- Face to face or on-line lectures will be used to enable students to support their own independent learning by exploring deeper issues pertaining to the use of BIM at the design stages, and receiving formative feedback.
- A series of face to face or on-line tutorials are designed to provide knowledge and practical skills in the use of BIM processes and technology at the design stages.
- 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. The formative work in the presentation will provide research material useful to the final report. Collaborative aspects of these presentations will be delivered online.
- Directed reading examining the key principles and relevant criteria relating to a number of topics of importance to BIM in design coordination. Their implications on design and construction professionals and other stakeholders are also examined by bringing together the BIM enabled design and collaborative aspects of the industry.

### Part 3: Assessment

- The assessment strategy adopted by this module involves a mix of practical skills assessment, and a report to reflect on BIM processes and technology applied at the design stages.
- The practical assessment is designed to evaluate 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 on real-life case study to provide a real-life experience of using BIM in design workflow in a group presentation.
- Students are expected to prepare a report requiring a detailed knowledge of the application of BIM at design stages and in practice. It is important for the student to appreciate the depth of detail required in which BIM operate at the design stages, including prevailing and emerging collaborative practices. This report is also a reflective piece of work to examine the strengths and limitations of current and emerging BIM processes and technology at the design stages. The Report is a 2500 word report.

First Sit Components	Final Assessment	Element weighting	Description
Report - Component B		50 %	Report (2500 words or equivalent)
Practical Skills Assessment - Component A	✓	50 %	BIM model at the design stages (Practical skills assessment)
Resit Components	Final Assessment	Element weighting	Description
Report - Component B		50 %	Report (2500 words or equivalent)

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Practical Skills Assessment - Component A	✓	50 %	BIM model at the design stages (Practical skills assessment)
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<b>Part 4: Teaching and Learning Methods</b>																	
Learning Outcomes	<p>On successful completion of this module students will achieve the following learning outcomes:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><b>Module Learning Outcomes</b></th> <th style="text-align: left;"><b>Reference</b></th> </tr> </thead> <tbody> <tr> <td>Critically evaluate current practice in the use of BIM throughout the various stages of the design process</td> <td>MO1</td> </tr> <tr> <td>Analyse the wider range of BIM processes and tools and select appropriate solutions, recognising the importance of communication, coordination of design information</td> <td>MO2</td> </tr> <tr> <td>Apply BIM tools for generation, reviewing, analysis, simulation, and coordination of design information</td> <td>MO3</td> </tr> <tr> <td>Recognise the benefits of BIM to support distributed work processes, with multiple team members working on the same project</td> <td>MO4</td> </tr> <tr> <td>Apply work sharing methods and techniques of design information</td> <td>MO5</td> </tr> <tr> <td>Assess collaborative practices in a multidisciplinary team</td> <td>MO6</td> </tr> </tbody> </table>	<b>Module Learning Outcomes</b>	<b>Reference</b>	Critically evaluate current practice in the use of BIM throughout the various stages of the design process	MO1	Analyse the wider range of BIM processes and tools and select appropriate solutions, recognising the importance of communication, coordination of design information	MO2	Apply BIM tools for generation, reviewing, analysis, simulation, and coordination of design information	MO3	Recognise the benefits of BIM to support distributed work processes, with multiple team members working on the same project	MO4	Apply work sharing methods and techniques of design information	MO5	Assess collaborative practices in a multidisciplinary team	MO6		
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Reading List	<p>The reading list for this module can be accessed via the following link:</p> <p><a href="https://uwe.rl.talis.com/index.html">https://uwe.rl.talis.com/index.html</a></p>																

<b>Part 5: Contributes Towards</b>	
This module contributes towards the following programmes of study:	
Construction Project Management [Sep][DL][Frenchay][1yr] MSc 2020-21	
Construction Project Management [Jan][FT][Frenchay][1yr] MSc 2020-21	

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Construction Project Management [Sep][FT][Frenchay][1yr] MSc 2020-21  
Quantity Surveying [Sep][FT][Frenchay][2yrs] GradDip 2019-20  
Construction Project Management [Jan][PT][Frenchay][2yrs] MSc 2019-20  
Construction Project Management [Sep][PT][Frenchay][2yrs] MSc 2019-20  
Quantity Surveying [Sep][PT][Frenchay][2yrs] MSc 2019-20  
Quantity Surveying [Sep][PT][Frenchay][3yrs] GradDip 2018-19  
Quantity Surveying [Sep][FT][Frenchay][1yr] MSc 2020-21