



MODULE SPECIFICATION

Part 1: Information			
Module Title	BIM in Operation and Maintenance		
Module Code	UBLMMK-15-M	Level	Level 7
For implementation from	2019-20		
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>Educational Aims: See Learning Outcomes</p> <p>Outline Syllabus: BIM for building and asset operation and maintenance</p> <p>BIM-Facilities Management (FM) integration</p> <p>System control</p> <p>Space tracking</p> <p>Asset management</p> <p>Maintenance management</p> <p>Existing conditions modelling</p> <p>Condition documentation</p> <p>New directions and developments of BIM for operation and maintenance</p>

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Teaching and Learning Methods: The module will be delivered by means of a series of lectures, seminars and tutorials.

Lectures and seminars will be used to enable students to support their own independent learning by exploring deeper issues pertaining to the use of BIM in operation and maintenance, and receiving formative feedback. Occasional speakers will be used to provide up to date material and context to the applications of the subject area.

A series of tutorials are designed to provide knowledge and practical skills in the use of BIM processes and technology in building and asset operation and maintenance.

Presentations by and to the group 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.

Directed reading examining the key principles and relevant criteria relating to a number of topics of importance to BIM in operation and maintenance. Their implications on property and real-estate services are also examined by bringing together the BIM, FM and collaboration.

Hours

The module is delivered by way of five study days for face to face teaching. Recorded lectures and the use of email discussion groups of virtual learning environments (VLEs) and other technology-aided means are also employed.

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 building and asset operation and maintenance.

The practical skills assessments are designed to evaluate students' practical skills in planning and applying BIM processes and technology throughout building operation and maintenance. State of the art technology, including hardware and 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 operation and maintenance.

Students are expected to prepare a report requiring a detailed knowledge of the application of BIM in operation and maintenance. It is important for the student to appreciate the depth of detail required in which BIM is applied at operation and maintenance 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 operation and maintenance stages. The Report is a 2500 word report suitable for dissemination to senior management.

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

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Part 4: Teaching and Learning Methods																					
Learning Outcomes	<p>On successful completion of this module students will achieve the following learning outcomes:</p> <table border="1"> <thead> <tr> <th style="text-align: left;">Module Learning Outcomes</th> <th style="text-align: left;">Reference</th> </tr> </thead> <tbody> <tr> <td>Critically analyse the role of BIM for building and asset operation and maintenance</td> <td>MO1</td> </tr> <tr> <td>Assess BIM-Facilities Management (FM) integration</td> <td>MO2</td> </tr> <tr> <td>Apply BIM for system control</td> <td>MO3</td> </tr> <tr> <td>Use BIM for space tracking</td> <td>MO4</td> </tr> <tr> <td>Use BIM for asset management</td> <td>MO5</td> </tr> <tr> <td>Apply BIM for maintenance management</td> <td>MO6</td> </tr> <tr> <td>Apply BIM for existing conditions modelling</td> <td>MO7</td> </tr> <tr> <td>Produce condition documentation</td> <td>MO8</td> </tr> <tr> <td>Work as part of a team</td> <td>MO9</td> </tr> </tbody> </table>	Module Learning Outcomes	Reference	Critically analyse the role of BIM for building and asset operation and maintenance	MO1	Assess BIM-Facilities Management (FM) integration	MO2	Apply BIM for system control	MO3	Use BIM for space tracking	MO4	Use BIM for asset management	MO5	Apply BIM for maintenance management	MO6	Apply BIM for existing conditions modelling	MO7	Produce condition documentation	MO8	Work as part of a team	MO9
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Reading List	<p><i>The reading list for this module can be accessed via the following link:</i></p> <p>https://uwe.rl.talis.com/index.html</p>																				

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Part 5: Contributes Towards

This module contributes towards the following programmes of study:

Building Surveying [Sep][FT][Frenchay][1yr] MSc 2019-20

BIM in Design, Construction and Operation [Jan][PT][Frenchay][3yrs] MSc 2018-19

BIM in Design, Construction and Operation [Sep][PT][Frenchay][3yrs] MSc 2018-19

Building Surveying [Sep][FT][Frenchay][2yrs] GradDip 2018-19

Building Surveying [Sep][PT][Frenchay][2yrs] MSc 2018-19

Building Surveying {With Preparatory Studies} [Sep][FT][Frenchay][2yrs] MSc 2018-19