MODULE SPECIFICATION

Part 1: Information			
Module Title	BIM in Operation and Maintenance		
Module Code	UBLMMK-15-M	Level	Level 7
For implementation from	2018-19		
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		
Contributes towards	BIM in Design, Construction and Operation [Sep][FT][Frenchay][1yr] MSc 2018-19 BIM in Design, Construction and Operation [Jan][FT][Frenchay][1yr] MSc 2018-19 Building Surveying [Sep][FT][Frenchay][1yr] MSc 2018-19		
Module type:	Standard		
Pre-requisites	None		
Excluded Combinations	None		
Co- requisites	None		
Module Entry requirements	None		

Part 2: Description
Educational Aims: See Learning Outcomes **Outline Syllabus:** BIM for building and asset operation and maintenance BIM-Facilities Management (FM) integration System control Space tracking Asset management

Maintenance management

Existing conditions modelling

Condition documentation

New directions and developments of BIM for operation and maintenance

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)

Part 4: Teaching and Methods

Learning Outcomes

On successful completion of this module students will be able to:

	Module Learning Outcomes
MO1	Critically analyse the role of BIM for building and asset operation and maintenance
MO2	Assess BIM-Facilities Management (FM) integration
MO3	Apply BIM for system control
MO4	Use BIM for space tracking
MO5	Use BIM for asset management
MO6	Apply BIM for maintenance management
MO7	Apply BIM for existing conditions modelling
MO8	Produce condition documentation
MO9	Work as part of a team

Contact Hours

Contact Hours	
Independent Study Hours:	
Independent study/self-guided study	114
Total Independent Study Hours:	114
Scheduled Learning and Teaching Hours:	
Face-to-face learning	36
Total Scheduled Learning and Teaching Hours:	36
Hours to be allocated	150
Allocated Hours	150

Reading List

The reading list for this module can be accessed via the following link:

https://uwe.rl.talis.com/index.html