ROBERT GORDON UNIVERSITY ABERDEEN

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MODULE DESCRIPTOR			
Module Title			
Building Information Modelling: Application in Design and Construction			
Reference	ACM016	Version	6
Created	August 2021	SCQF Level	SCQF 11
Approved	June 2014	SCQF Points	15
Amended	September 2021	ECTS Points	7.5

Aims of Module
To develop a professional understanding of Building Information Modelling Management (BIMM), and its implications for the built environment across the design and construction stages of a project.

Learning Outcomes for Module	
On completion of this module, students are expected to be able to:	
1	Critically appraise the utilisation of BIM during the architectural (multi discipline) design phase, from concept to detail design, including smart data workflow.
2	Review and construct a vehicle to manage activity during the construction phase, including proactive response to technical and contractual issues.
3	Review and validate relevant BIM legislation and how it applies to the design and construction stages of a project.
4	Evaluate the challenges inherent in providing building information models in a form which is interoperable, across disciplines.

Indicative Module Content
BIM at the conceptual design stage; cross discipline design; shared BIM models; BIM during the construction stages; CDE; technical issues; virtual prototyping; BIM protocol; interoperability; building data storage and accessibility; smart data workflow; digital construction and transformation.

Module Delivery
The module is available for delivery through both face to face and distance-learning modes via the Virtual Campus. Access to staff support will be available, either face to face or through online forums. The delivery of this module will be supported through case studies, group activities and discussion forums.

		Module Ref:	ACM016 v6

Indicative Student Workload	Full Time	Part Time
Contact Hours	36	36
Non-Contact Hours	114	114
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	150	150
Actual Placement hours for professional, statutory or regulatory body		

ASSESSMENT PLAN

If a major/minor model is used and box is ticked, % weightings below are indicative only.

Component 1

Type:	Coursework	Weighting:	40%	Outcomes Assessed:	1, 2

Description:	Normally a longitudinal assessment involving topic discussion forums for distance learning students or group work for full time students (20%) and a group presentation (20%).

Component 2

Type:	Coursework	Weighting:	60%	Outcomes Assessed:	3, 4

Description:	An individual written piece of work.

MODULE PERFORMANCE DESCRIPTOR

Explanatory Text

The overall module grade is based on 60% weighting of Component 2 (coursework Y axis) and 40% weighting of Component 1 (coursework X axis). An overall minimum grade D in each assessment element and in each component is required to pass the module. Non-submission of either component will result in an NS grade.

			Coursework:					
		A	**B**	**C**	**D**	**E**	**F**	**NS**
	A	A	A	B	B	E	E	
	B	B	B	B	C	E	E	
	C	B	C	C	C	E	E	
Coursework:	**D**	C	C	D	D	E	E	
	E	E	E	E	E	E	F	
	F	E	E	E	F	F	F	
	NS	Non-submission of work by published deadline or non-attendance for examination						

Module Requirements	
Prerequisites for Module	None.
Corequisites for module	None.
Precluded Modules	None.

INDICATIVE BIBLIOGRAPHY

1 Journals, to include 'Design Studies', 'ITCon', Automation in Construction', professional journals, including those from the RICS, RIBA and CIAT.

2 Eastman C., 2011, 2018. BIM Handbook: A Guide to Building Information Modelling for Owners, Designers, Engineers, Contractors, and Facility Managers, Wiley

3 Centre for Digital Built Britain: https://www.cdbb.cam.ac.uk/ (rich set of online resources, UK legislation and guide

4 NBS, 2019. The National BIM Report 2019 [online]. National Building Specification (NBS). Available from: https://www.thenbs.com/knowledge/national-bim-report-2019

5 International Conference on Construction and Real Estate Management (2017 : Guangzhou, China); sponsoring body.; American Society of Civil Engineers, publisher.2017 Available online at: https://app.knovel.com/web/toc.v/cid:kpICCREM0N/viewerType:toc//root_slug:iccrem-2017-project?kpromoter=ma