Course Specification

Published Date:	04-Oct-2021
Produced By:	Oliver Jones
Status:	Validated

Core Information

Awarding Body / Institution:	University of Wolverhampton		
School / Institute:	School of Architecture and Built Environment		
Course Code(s):	AT015P01UV	Full-time	12 Months
	AT015P31UV	Part-time	2 Years
Course Title:	MSc Building Information Modelling for Integrated Construction		
Hierarchy of Awards:	Master of Science Building Information Modelling for Integrated Construction Postgraduate Diploma Building Information Modelling Postgraduate Certificate Building Information Modelling University Statement of Credit University Statement of Credit		
Language of Study:	English		
Date of DAG approval:	30/May/2017		
Last Review:	2020/1		
Course Specification valid from:	2015/6		
Course Specification valid to:	2025/6		

Academic Staff

Course Leader:	Dr David Heesom
Head of Department:	

Course Information

Location of Delivery:	University of Wolverhampton
Category of Partnership:	Not delivered in partnership
Teaching Institution:	University of Wolverhampton
Open / Closed Course:	This course is open to all suitably qualified candidates.

Entry Requirements:

Entry requirements are subject to regular review. The entry requirements applicable to a particular academic year will be published on the University website (and externally as appropriate e.g. UCAS

For direct entry onto the Master's programme:

A lower second honours degree or equivalent in related subject is required for direct entry onto this Master's programme.
or
A Postgraduate Certificate in a related subject or equivalent with a minimum of grade C in all modules.

For entry onto the Postgraduate Certificate programme
(Completion of which, with a minimum of grade C in all modules, will allow a student to progress to the Master's programme)

A pass at degree level.

Students are selected using application form and references in the first instance and may be invited for interview.

Students applying for individual modules will be required to demonstrate the ability to absorb technical concepts and detail, possibly by way of their previous industrial or commercial experience.

Minimum English competency is the standard MSc entry: IELTS 6.0 or equivalent

Distinctive Features of the Course:

To help you meet the challenges presented by this fascinating and key area, the School of Architecture and the Built Environment not only supports you with a wealth of experience and unique expertise, it also gives you access to state of the art computer facilities including the Visualisation Centre equipped with high specification PC's, A 75" Multi touch table, Virtual Reality headsets, 3D laser scanning technologies and a 5m x 3m stereoscopic visualisation wall to allow you to work through BIM projects and see your projects in a whole new light. The department has enviable links with industry and software suppliers through research and Knowledge Transfer Partnerships. Where possible industry experts are used to support your learning and industry based projects are set for assessment to give you a flavour of the real world application of BIM.

Educational Aims of the Course:

The use of BIM on projects within UK is exploding following the 2011 Government Construction Strategy stating that Building Information Modelling (BIM) had to be used on centrally procured projects from April 2016. The aim of this course is to develop students with in depth, high-level knowledge and understanding of all aspects of BIM. This new approach is strategically important for the UK and International Construction Industry and throughout the course students will not only develop a comprehension of how the tools operate, but also how these can be implemented within the business context of the Architecture and Construction sectors.

The course will provide you with the opportunity to study the fundamental principles of BIM both in the UK and Internationally. You will study the prevailing standards such as the PAS1192 suite and gain hands on experience of implementing these in a project environment. In addition you will develop practical skills in

utilising industry leading software packages currently being employed throughout the BIM process including how to develop data rich 3D models and 4D and 5D simulations of the construction process.

Intakes:

September
January
May

Major Source of Funding:

Office for Students (OFS)

Tuition Fees:

Tuition fees are reviewed on an annual basis. The fees applicable to a particular academic year will be published on the University website.

Year	Status	Mode	Amount
2020/1	H	Full Time	£6400.00
2020/1	Overseas	Full Time	£13350.00
2020/1	H	Part Time	£3200.00
2021/2	H	Full Time	£6550.00
2021/2	Overseas	Full Time	£13950.00
2021/2	Overseas	Full Time	£13950.00
2021/2	H	31	£3275.00

PSRB:

AT015P01UV (Full-time)

Professional Accreditation Body:
Chartered Association of Building Engineers

Accrediting Body:
Chartered Association of Building Engineers (CABE)

Accreditation Statement:
Accredited by the Chartered Association of Building Engineers (CABE).

Approved	Start	Expected End	Renewal
06/Aug/2021	01/Sep/2021	31/Aug/2026	

AT015P31UV (Part-time)

Professional Accreditation Body:
Chartered Association of Building Engineers

Accrediting Body:
Chartered Association of Building Engineers (CABE)

Accreditation Statement:
Accredited by the Chartered Association of Building Engineers (CABE).

Approved	Start	Expected End	Renewal
06/Aug/2021	01/Sep/2021	31/Aug/2026	

Course Structure:

January (Full-time)

Year 1

Module	Title	Credits	Period	Type
7ET022	Research Methods and Professional Skills	20	SEM2	Core
7AT007	BIM for Renovation and Heritage	20	SEM2	Core
7ET023	Dissertation	60	CRYRA	Core
7CN001	Advanced Project Planning and Control	20	SEM2	Core
7AT002	Visualisation techniques for BIM	20	SEM3	Core

January (Full-time)

Year 1

Module	Title	Credits	Period	Type
7AT002	Visualisation techniques for BIM	20	SEM3	Core
7ET022	Research Methods and Professional Skills	20	SEM3	Core

January (Part-time)

Year 1

Module	Title	Credits	Period	Type
7ET022	Research Methods and Professional Skills	20	SEM2	Core
7AT002	Visualisation techniques for BIM	20	SEM3	Core
7AT003	Building Information Modelling (Theory and Application)	20	SEM1	Core
7AT006	Integrated BIM Project	20	SEM1	Core

7AT007	BIM for Renovation and Heritage	20	SEM2	Core
7CN001	Advanced Project Planning and Control	20	SEM2	Core
7AT006	Integrated BIM Project	20	SEM1	Core
7ET023	Dissertation	60	CRYRA	Core
7AT003	Building Information Modelling (Theory and Application)	20	SEM1	Core
7AT003	Building Information Modelling (Theory and Application)	20	SEM1	Core

January (Part-time)

Year 2

Module	Title	Credits	Period	Type
7AT007	BIM for Renovation and Heritage	20	SEM2	Core
7CN001	Advanced Project Planning and Control	20	SEM2	Core
7ET023	Dissertation	60	CRYRA	Core
7AT006	Integrated BIM Project	20	SEM1	Core

May (Part-time)

Year 1

Module	Title	Credits	Period	Type
7ET022	Research Methods and Professional Skills	20	SEM3	Core
7AT002	Visualisation techniques for BIM	20	SEM3	Core
7AT003	Building Information Modelling (Theory and Application)	20	SEM1	Core
7AT007	BIM for Renovation and Heritage	20	SEM2	Core

May (Part-time)

Year 2

Module	Title	Credits	Period	Type
7ET023	Dissertation	60	CRYRA	Core
7CN001	Advanced Project Planning and Control	20	SEM2	Core
7AT006	Integrated BIM Project	20	SEM1	Core

September (Full-time)

Year 1

Module	Title	Credits	Period	Type
7AT003	Building Information Modelling (Theory and Application)	20	SEM1	Core
7AT007	BIM for Renovation and Heritage	20	SEM2	Core
7CN001	Advanced Project Planning and Control	20	SEM2	Core
7AT006	Integrated BIM Project	20	SEM1	Core
7ET023	Dissertation	60	CRYRA	Core
7ET022	Research Methods and Professional Skills	20	SEM2	Core
7AT002	Visualisation techniques for BIM	20	SEM3	Core

September (Part-time)

Year 1

Module	Title	Credits	Period	Type
7AT003	Building Information Modelling (Theory and Application)	20	SEM1	Core
7ET022	Research Methods and Professional Skills	20	SEM2	Core
7AT002	Visualisation techniques for BIM	20	SEM3	Core

September (Part-time)

Year 2

Module	Title	Credits	Period	Type
7AT007	BIM for Renovation and Heritage	20	SEM1	Core
7CN001	Advanced Project Planning and Control	20	SEM2	Core
7AT006	Integrated BIM Project	20	SEM1	Core
7ET023	Dissertation	60	CRYRA	Core

Please note: Optional modules might not run every year, the course team will decide on an annual basis which options will be running, based on student demand and academic factors, to create the best learning experience.

Learning, Teaching and Assessment

Academic Regulations Exemption:

None

Reference Points:

• QAA subject benchmark - Architectural Technology 2014
• QAA subject benchmark – Construction, Property and Surveying (2008)
• Construction Industry Council – Higher Education Graduate Common Learning Outcomes (2008)
• The framework for higher education qualifications in England, Wales and Northern Ireland (August 2008)
Descriptor for a higher education qualification at level 7: Master's degree
• UK BIM Task Group BIM Learning Outcomes Framework 2013

Learning Outcomes:

PGCert Course Learning Outcome 1 (PGCCLO1)

Demonstrate a systematic understanding of knowledge, and a critical awareness of current problems and/or new insights, much of which is at, or informed by, the forefront of your academic discipline, field of study or area of professional practice with a conceptual understanding that enables the student: (a) to evaluate critically current research and advanced scholarship in the discipline (b)to evaluate methodologies and develop critiques of them and, where appropriate, to propose new hypotheses.

PGCert Course Learning Outcome 2 (PGCCLO2)

Demonstrate a comprehensive understanding of techniques applicable to your own research or advanced scholarship and ability to continue to advance your knowledge and understanding, and to develop new skills to a high level.

PGCert Course Learning Outcome 3 (PGCCLO3)

Demonstrate originality in the application of knowledge, together with a practical understanding of how established techniques of research and enquiry are used to create and interpret knowledge in the discipline.

PGCert Course Learning Outcome 4 (PGCCLO4)

Ability to deal with complex issues both systematically and creatively, make sound judgements in the absence of complete data, and communicate your conclusions clearly to specialist and non-specialist audiences.

PGCert Course Learning Outcome 5 (PGCCLO5)

Demonstrate self-direction and originality in tackling and solving problems, and act autonomously in planning and implementing tasks at a professional or equivalent level.

PGCert Course Learning Outcome 6 (PGCCLO6)

Demonstrate the qualities and transferable skills necessary for employment requiring: (a) the exercise of initiative and personal responsibility (b) decision-making in complex and unpredictable situations (c) the independent learning ability required for continuing professional development.

PGDip Course Learning Outcome 1 (PGDCLO1)

Demonstrate a systematic understanding of knowledge, and a critical awareness of current problems and/or new insights, much of which is at, or informed by, the forefront of your academic discipline, field of study or area of professional practice with a conceptual understanding that enables the student: (a) to evaluate critically current research and advanced scholarship in the discipline (b) to evaluate methodologies and develop critiques of them and, where appropriate, to propose new hypotheses.

PGDip Course Learning Outcome 2 (PGDCLO2)

Demonstrate a comprehensive understanding of techniques applicable to your own research or advanced

scholarship and ability to continue to advance your knowledge and understanding, and to develop new skills to a high level.

PGDip Course Learning Outcome 3 (PGDCLO3)

Demonstrate originality in the application of knowledge, together with a practical understanding of how established techniques of research and enquiry are used to create and interpret knowledge in the discipline.

PGDip Course Learning Outcome 4 (PGDCLO4)

Ability to deal with complex issues both systematically and creatively, make sound judgements in the absence of complete data, and communicate your conclusions clearly to specialist and non-specialist audiences.

PGDip Course Learning Outcome 5 (PGDCLO5)

Demonstrate self-direction and originality in tackling and solving problems, and act autonomously in planning and implementing tasks at a professional or equivalent level.

PGDip Course Learning Outcome 6 (PGDCLO6)

Demonstrate the qualities and transferable skills necessary for employment requiring: (a) the exercise of initiative and personal responsibility (b) decision-making in complex and unpredictable situations (c) the independent learning ability required for

Masters Course Learning Outcome 1 (MACLO1)

Demonstrate a systematic understanding and critical awareness of current and emerging CAD technologies in relation to the construction industry

Masters Course Learning Outcome 2 (MACLO2)

Select and effectively implement an appropriate range of advanced software tools in order to produce architectural design and construction documentation including drawings, visualisations and presentations

Masters Course Learning Outcome 3 (MACLO3)

Put into practice a range of techniques required to undertake technical research in the area of CAD and visualisation; review, analyse and evaluate findings in a professional manner.

Masters Course Learning Outcome 4 (MACLO4)

Demonstrate high level skills and abilities to make use of generic and bespoke software tools, solving complex design problems and developing appropriate solutions for presentation to a range of audiences

Masters Course Learning Outcome 5 (MACLO5)

Evaluate current research and scholarship within the general area of ICT for construction, critique current research methodologies and apply this knowledge to solve original problems

Masters Course Learning Outcome 6 (MACLO6)

Implement a range of transferable skills including the ability to learn independently, make informed decisions in complex situations and take responsibility for personal development

Overview of Assessment:

Module	Title	Course Learning Outcomes
7AT002	Visualisation techniques for BIM	MACLO3, MACLO5, PGDCLO5
7AT003	Building Information Modelling (Theory and Application)	MACLO1, MACLO5, PGCCLO1, PGCCLO5, PGCCLO6, PGDCLO1, PGDCLO5
7AT006	Integrated BIM Project	MACLO2, MACLO3, MACLO4, PGCCLO2, PGCCLO3, PGCCLO4, PGDCLO2, PGDCLO3, PGDCLO4
7AT007	BIM for Renovation and Heritage	MACLO1, MACLO2, PGCCLO1, PGCCLO2, PGCCLO6, PGDCLO1, PGDCLO2
7CN001	Advanced Project Planning and Control	MACLO1, MACLO4, PGDCLO1, PGDCLO4
7ET022	Research Methods and Professional Skills	MACLO5, MACLO6, PGDCLO5, PGDCLO6
7ET023	Dissertation	MACLO6

Teaching, Learning and Assessment:

You will have the opportunity to engage with a range of learning approaches during the course of your study.

You will take part in lectures and seminars. Some of these will be more traditional whereas others will require you to undertake research before coming together to discuss technical issues with a range of students and academic staff. You will have seminars from industry practitioners and have the opportunity to discuss your projects with them to gain real world insight into the problems you are trying to solve.

You will work in a dedicated BIM laboratory to develop practical skills and understand the link between the theory and practical implementation of a range of BIM technologies. Throughout the weekly class sessions and through use of the on-line support material, you will obtain skills required to successfully implement BIM

Often working on design briefs specified by industry practitioners, you will develop solutions to meet real world problems/requirements and present these to your peers to obtain group feedback.

Assessment Methods:

At the University of Wolverhampton, a variety of modes of assessment will be used to support and test your learning and progress and to help you develop capabilities that are valued beyond your University studies and into your working life. Your course may include a variety of assessment activities:

Written examinations (including online examinations, open and closed book examinations and quizzes) Coursework (for example, essays, reports, portfolios, project proposals and briefs, CVs, poster presentation) Practical (for example, oral and video presentations, laboratory work, performances, practical skills assessment)

In the final year of your undergraduate degree, and at the end of your postgraduate degree, you are likely to be expected to write an extended piece of work or research, such as a dissertation or a practice-based piece of research.

Student Support:

University provided support:

As well as providing general counselling support the University Counselling Service provides short courses on topics such as "Self Confidence", "Stress Management and Relaxation" and "Life Skills". They also provide study skills and academic support, providing short courses such as provide help in areas such as "Writing and Assignment Skills", "Exam Techniques", "Enhancing Professional Skills", "Personal Development Planning" and "Making Choices for the Future.

University Learning Centres provide general academic skills support to all students. You can make an appointment with a study skills advisor for advice on areas such as academic writing, assignment planning, exam preparation, and time management.

In addition, there is a regular timetable of drop-in and bookable workshops covering information and digital literacy skills, including academic referencing. School of Technology students are supported by a designated subject librarian who is available to support research and project work.

Course support:

At the start of your course you will be assigned a Personal Tutor who will guide you through the induction process and provide support and academic counselling throughout your course on an appointment basis. They should be able to offer you advice and guidance to help you liaise with other staff and support facilities in the School and University.

The Student Support Advisers (SSA) provides academic counselling and will be accessible throughout the week on a drop-in or appointment basis to discuss timetables, requests for extensions, requests for extenuating circumstances, general concerns about study and student life and general programme planning.

The SSA will act as a first point of contact in relation to leave of absence (including returning after leave), withdrawal, transferring to another course (internal and external) and changes to mode of attendance.

Your Course Leader will be available thereafter for meetings by appointment to discuss leave of absence, withdrawal, transferring to another course (internal and external), changes to mode of attendance, returning after leave of absence and direct entrants.

Subject support:

Tutorials, workshops, seminars and meetings - provide the primary opportunities for students to interact with staff on topics relating to modules. All modules provide at least one of these forms of face-to-face support.

Formative feedback - tutors provide personalised written feedback on most summative assessments. The mechanism for feedback from purely formative tasks varies between assessments, but will always be provided in some form. Online formative tasks often provide feedback straight away. On occasions tutors may provide generalised verbal feedback to the whole class on points relating to an assessment

Assessment and subject-based surgeries provide additional student support for subjects that students often need extra help with. They are often concentrated around the times when assessments take place. Revision sessions are provided for many modules that have exam-like tests and enable you to interact with tutors to review parts of the course. Mock exams and tests may provide opportunities to experience an examination environment before the final summative test and give you feedback on your understanding.

International Students:

The International Centre will provide pre and post entry visa and immigration support and advice on and arrange for the necessary paperwork to be submitted to UKBA. They will also provide appropriate University Induction support on arrival and be a point of contact for international students throughout their stay here. A range of social and cultural activities arranged by the International Centre will also promote the integration of international students into the whole of the University's learning community. English language support is also available through the international language centre in the University.

Employability in the Curriculum:

There are numerous opportunities opening up within the construction sector and the wider supply chain for those with specific knowledge of the BIM process. Students who successfully complete this course can go into careers as BIM coordinators or BIM specialists leading BIM projects for both designers and contractors.