

Course Specification

Part A

MSc Construction Management with BIM

TKHT008

School of Engineering

From Academic Year: 2025/2026

Please note: This specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if they take full advantage of the learning opportunities that are provided.

We regularly review our course content, to make it relevant and current for the benefit of our students. For these reasons, course modules may be updated.

The accuracy of the information contained in this document is reviewed by the University and may be verified by external agencies.

PART A Course Specification (Published Document)

1. Introduction

Course Summary:

This course is designed to equip students with the knowledge and skills to enter the world of construction management and BIM with confidence in their ability to face current and future challenges.

Course Introduction:

The requirement for appropriately trained and qualified construction professionals with an understanding of the needs of the modern and global industry is an ever-increasing necessity. Over recent years the focus in the sector has changed from the purely technical to encompass an increasing awareness of the effects of the built environment on the natural environment. There is a need to produce more buildings, for ever-increasing populations, but with a greater understanding and consideration of the finite nature of the resources available to achieve this.

The course will further prepare students with the innovation and creativity skills required to tackle the complex problems now facing the industry. Areas which will be developed include but are not limited to; collaboration, technology, innovation, contracts, legislation, sustainability, finance, and quality. The course will consider industry in the context of the UK and globally. The course will enable students to analyse, solve and advise on Construction Management problems of an advanced technical and managerial nature with sound judgement.

The Construction Management with Building Information Modelling (CM with BIM) course covers a wide range of skills which industry has identified as critical with a strong focus on the digital future of the industry, with key modules covering digital modelling and innovation in construction. The course focuses on preparing students with the skills they need for today's industry but also the future, ensuring that the latest developments such as digitalisation, AI and disruptive technology are developed and adopted. The Construction Management with BIM course focuses on the collaborative nature of the industry, utilising digital tools to enhance productivity and efficiency. In addition, the course is designed to ensure that we don't lose sight of the critical nature of communication and people skills whilst society evolves towards a digital future. At Coventry University, the course is in the School of The Environment in the College of Engineering, Environment and Science, at The Knowledge Hub the course is in the School of Engineering. A considerable approach ethos is based around replicating real life industry working focusing on scenario-based projects and simulation training.

The modern Construction Manager needs to have a knowledge of areas not only of new construction projects, but also of conservation and improvement of the existing built environment. This must all be seen against the background of an increasing awareness of the need for ethical responsibility for sustainable development, and the ability to make use of new innovations and technologies in the world of work.

Accreditation and Career Destination:

The course has been designed to attract students from a wide array of cognate undergraduate degree backgrounds and industry experience in and around construction. Such as those from a Construction Management, Architecture, Architectural Technology, Civil Engineering, Quantity Surveying, Building Surveying, Building Services and Facility Management. Our course provides students with universally applicable skills and enhances their ability to be efficient and effective in roles such as Construction Managers, BIM Managers, Coordinators, Technicians, Specialists, Site Managers, Sustainability Consultants, and other Project Managers in the construction sector. This course has been designed to satisfy the accreditation criteria of the Chartered Institute of Building (CIOB), which is a requirement on the path towards membership of the professional body when the course is accredited.

How you will learn:

The core principles underpinning our teaching and learning strategy in the school is the integration of active, social, applied and inclusive approaches. Key elements of the teaching and learning strategy include:

- **Active**

The course has been designed to cater to individual learning needs. A wide variety of resources will be made available, allowing students to access materials that best suit their learning style. Taught sessions will incorporate inquiry- and research- based learning methods ranging from theoretical lectures, practical sessions and workshops. Students will continually take part in class and online discussions to support reinforcement of knowledge. Active sessions will include project management execution planning, software analysis such as energy modelling and group scenario work.

- **Social**

Workshops, and seminars will promote teamwork, fostering collaboration among students and developing both technical skills and 'softer skills'. This will also expose students to diverse cultures and experiences. A key aspect of the MSc Construction Management with BIM course, and therefore an excellent reason to choose studying a Coventry University course at The Knowledge Hub is our collaborative working within multiple modules. Collaborative assessments will utilise 'real life' construction scenarios and engage our students in role play representing their developing skillset providing them with 'close to real' learning opportunities. Students will develop crucial collaborative skills using several digital construction and communication platforms.

- **Applied**

Modules will include seminars, tutorials and workshops as well as theoretical lectures. This supports students to put their knowledge into practice by tackling real-world scenarios. Assessment will also encourage students to engage with real-world or simulated scenarios to support their submissions, reinforcing active learning. Scenario based learning is a critical tool in preparing our students for the challenges of the professional world. Simulation is a powerful tool that enables us to simulate real-life construction scenarios and engage our students in role-playing. Students will engage in workshop and seminar discussion with industry professionals to participate in virtually simulated project scenarios. This is an integral part of the course on the MSc Construction Management with BIM courses which helps prepare our students for the challenges of the professional world and ease the transition into the workplace. Students will be taught by staff with extensive experience, both academic and professional, in areas such as Construction Management, Architectural Practice, Civil Engineering and the wider construction industry. This breadth and depth of knowledge and experience is vital to ensure that upon graduation students not only understand their role, but the importance of the multi-disciplinary nature of the construction industry. We also have a strong portfolio of industry-related research, particularly in the areas of low carbon building technology, sustainable construction materials and engineering education, which ensures students will stay abreast of modern technologies and emerging issues. In these times of change, it is essential that graduates from the MSc in Construction Management with BIM at Coventry University Branch at The Knowledge Hub are well-prepared for the challenges they will face in their careers.

- **Inclusive**

Our teaching and learning sessions foster open discussions in a safe and inclusive environment, where everyone feels comfortable sharing and learning from a wide range of experiences and backgrounds. To further enhance inclusivity, we design our modules to offer multiple learning styles including materials and modes of delivery. We offer multiple support mechanisms to support the student journey such as recording all live lectures and seminars, providing all PowerPoints ahead of sessions and varying up the session delivery style between lecture led, student led, discussion, group work and self-study. Using a variety of delivery and inclusive methods supports students of differing learning types, enabling students to prepare and absorb content at their own pace.

- **Academic Personal Tutor support**

The Knowledge Hub will also provide additional support to students throughout their study through an academic personal tutor. Each student will be allocated a personal tutor who throughout their study who will be a direct point of contact to support the student through their academic life and study. Students will have support sessions with their tutor which will focus on learning journey as well as support through the modules. Through these sessions students will have the opportunity to enhance critical construction and research skills with the support of online material and academic personal tutor tutorials.

2 Available Award(s) and Modes of Study

Title of Award	Mode of attendance	FHEQ Level
Master of Science (MSc) Construction Management with BIM	Full Time: 1 year Part Time: 2 years	L7
Fallback Awards Postgraduate Diploma Construction Management with BIM Postgraduate Certificate Construction Management Studies with BIM		

3 Awarding Institution/Body

Coventry University

4 Collaboration	Autonomous Franchise
5 Teaching Institution and Location of delivery	Coventry University Branch at TKH The Knowledge Hub Universities Campus New Administrative Capital, Residential Area 7, R7, Cairo Governorate
6 Internal Approval/Review Dates	Date of approval: July 2021 Date for next review: Academic year 2027/28
7 Course Accredited by	N/A
8 Accreditation Date and Duration	N/A
9 QAA Subject Benchmark Statement(s) and/or other external factors	CIOB publishes an educational framework which is required to be referenced in course design and specification, when seeking accreditation.
10 DBS requirement	Not required
11 Date of Course Specification	06/2025
12 Course Director	TKH: Mostafa El-Mogy Link tutors (provisional): Ramy Shaltout and Danny McGough

13 Outline and Educational Aims of the Course

The specific aims of the MSc Construction Management with BIM course have been developed to reflect the changing structure of the industry and to equip students to meet the future challenges as well as to take advantage of current thinking around modernisation of the construction industry and the role of education. The specific course aims are to:

- Deliver an up-to-date curriculum that articulates the current challenges and good practice in Construction Management.
- Provide students with critical skills in Building Information Modelling which will prepare them to enter a modern digitalised industry.
- Provide an up-to-date curriculum that articulates the current challenges and good practice in the sustainability and innovational nature of the construction sector ensuring students can demonstrate knowledge and application of environmental principles and legislation applied to the construction industry.
- Deliver an educational experience that meets students' needs and expectations and those of the sectors' employers.
- Deliver an in-depth understanding of accounting and financial principles and use of financial information to analyse problems and assess performance in the construction industry.
- Develop a detailed understanding of theoretical and practical aspects of strategic management in the construction industry and corporate management processes in the construction industry.
- Develop students' personal, technical and management skills that enable highly competent graduates to apply professional knowledge, skills, and excellent practice across the world.
- Ensure students' capacity to evaluate, review and improve approaches and systems and apply learning effectively at an appropriate level using relevant methodologies, ensuring continuous improvement.
- Develop students' abilities in rigorous and valid independent investigation and research.

14 Course Learning Outcomes

A student who successfully completes the MSc Construction Management with BIM course will have achieved all the Course Learning Outcomes.

On successful completion of the course, a student will be able to:

1. Demonstrate understanding of building technology, design, and performance principles, including Building Information Modelling (BIM) across the building lifecycle.

2. Critically analyse the multi-disciplinary nature of the construction process including collaboration and Building Information Modelling.
3. Inspect and operate relevant IT platforms for the efficient completion of construction tasks.
4. Demonstrate ethical responsibility and evaluate professionalism in construction management.
5. Evaluate risks, create a safe work environment, and manage risks related to legal compliance, health and safety, and personal accountability.
6. Analyse, solve and advise on Construction Management problems of an advanced technical, quality assurance and managerial nature, with sound judgement.
7. Appraise and advise on current construction issues, including ethics, regulations, legal matters, sustainability, innovation, and global perspectives.
8. Carry out independent in-depth research investigations of a specialised topic, applying appropriate ethical research methodologies to produce professional reports in accordance with published conventions and/or client expectations.

In addition to the Course Learning Outcomes above the Coventry University Group Graduate Attributes are embedded throughout the course. The attributes will be articulated to clearly evidence how students are able to develop and demonstrate attainment of these attributes during their studies.

15 Course Structure, Modules, Credits and Progression and Award Requirements

Students studying for an MSc Construction Management with BIM will take four 30-credit technical modules and then, finally, the research project module.

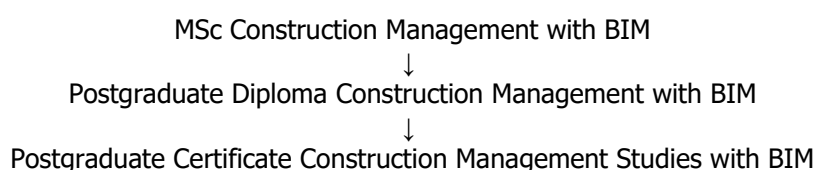
Details of modules included on this course are listed in Table 1 which includes their credit value. Students can enter the course at any point, studying the four technical modules in any order and then the final research project module. The course has been designed to operate over a flexible one year of full-time study or up to 2 years part time.

Please note: The delivery plan requires a rolling module plan with the four technical modules taking place in any order and the final research project module at the end of the course. Therefore, the below is for indication purposes only.

Table 1

Module credit level	Module Code	Title	Credit Value	Assessment Level	Mandatory/ Optional	Course Learning Outcomes
7	KH7013ENV	Building Information Modelling Foundation and Practice	30	30	Mandatory	1,2,3
7	KH7007ENV	Construction Innovation, Digitalisation and Sustainability	30	30	Mandatory	1,2,3
7	KH7014ENV	Project Management Principles	30	30	Mandatory	4,5,6,7
7	KH7001ENV	Strategic Management Practice and Stakeholder Integration	30	30	Mandatory	2,4,6,7
7	KH7002ENV	Research Project	60	60	Mandatory	6,7,8
Total			180			

Cascade of Awards:



Conditions for the award of a Master's degree

The award of an MSc degree from this course requires students to pass all 180 credits.

Conditions for fallback award

The award of a Postgraduate Diploma from this course requires students to pass any 120 credits.

The award of a Postgraduate Certificate from this course requires students to pass any 60 credits.

16 Criteria for Admission and Selection Procedure

The entrance requirement for the MSc Construction Management with BIM is a second-class honours degree (minimum 2:2 or higher) in any Construction Management, Architecture, Architectural Technology, Civil Engineering, Quantity Surveying, Building Surveying, Building Services and Facility Management discipline obtained from a recognised higher education institution.

Applications from those not possessing the equivalent of an honours degree, non-standard or non-cognate applications (e.g. students without an undergraduate degree in Construction Management or a related discipline) will be considered on a case-by-case basis by the Link Tutor reviewing work experience, academic background, and motivation.

Applicants whose first language is not English or who have not completed a first degree in which English was the main language of tuition must provide evidence of English language ability. The criterion for admission is an IELTS score of 6.5 or higher (with a minimum of 5.5 in each component) or equivalent qualification.

Recognition for prior learning (RPL) or prior experiential learning (RPEL) may be granted for modules at the discretion of the Link Tutor providing that adequate evidence of learning is submitted by the student in accordance with the University guidelines. RPL/RPEL is in accordance with the University Regulations for Taught Postgraduate courses and will be limited to the maximum specified in University Academic Regulations. Policies can be found on the TKH website: [The Knowledge Hub Universities | Policies and Regulations](#)

17 Academic Regulations and Regulations of Assessment

This Course conforms to the Regulations for the delivery of Coventry University Taught Postgraduate Awards at the Coventry University Branch at The Knowledge Hub, Egypt.

18 Indicators of Quality Enhancement

The Course is managed by the School of Engineering Board of Study at TKH (Egypt). The Progression and Award Board (PAB) for the School of Engineering (TKH Egypt) is responsible for considering the progress of all students and making awards in accordance with both University and course-specific regulations. The assurance of the quality of modules is the responsibility of the Boards of Study which contribute modules to the course.

External Examiners appointed by Coventry University have the opportunity to moderate all assessment tasks and a sample of assessed work for each module. They will report annually on the course and/or constituent modules and their views are considered as part of the Course Collaborative Quality Enhancement Monitoring (CCQEM).

Students are represented on the Student Forum, Board of Study and Faculty/School Board, all of which normally meet two or three times per year. Student views are also sought through module and course evaluation questionnaires.

The following are key indicators of quality and standards:

- The school has a strong portfolio of industry-related research, particularly in the areas of low carbon building technology and sustainable construction materials, and engineering education.
- Staff who teach on the course are active in scholarship and have a range of professional experience in construction management, construction finance, architectural practice, civil engineering, and related built environment professions.
- The school has excellent links with local employers through our Built Environment Advisory Board. These employers provide input to course management, delivery, and development.
- Within the School the record of students gaining employment in the construction industry is high, leading to roles such as BIM Managers (University estate BIM manager), BIM coordinators, Digital Construction Lead, BIM Document Manager, Project leads and Project Managers.
- There is a diverse and active range of research activities influencing courses in most areas of the college.

- Strong and regular industry input to the subject-base. This is achieved in many ways, for example through the long-standing advisory boards, industry-focused collaborative research initiatives and use of guest speakers from industry.
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19 Additional Information

Enrolled students have access to additional, key sources of information about the course and student support including:

- Academic Course Director(s) are responsible for particular activities across the course and are able to provide advice and support to students in course-related matters;
 - Student Handbook;
 - Module Descriptors;
 - The Knowledge Hub Study Support Information.
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