MSc

Building Information Modelling and Digital Transformation

Study mode	**Duration**	
Full-time	12 months	Apply by: **28 August 2026**
Part-time	24 months	Starts on: **21 September 2026**

About this course

Discover the transformational impact and future potential of building information modelling (BIM) on architecture, engineering and construction. You'll gain expertise using innovative digital technologies and explore the application and implementation of BIM across all stages of project planning and delivery.

Introduction

The rapid evolution of digital technologies and innovations in design and construction is transforming how professionals in the architecture, engineering and construction (AEC) industry are creating, communicating and interacting.

Building information modelling (BIM) is emerging as a new method, process and technology for creating and managing information for a built asset. Automating information flow across disciplines, BIM is embedding a culture of collaboration, integration and coordination across the design, construction and operational phases of building projects.

This programme will immerse you in the exciting new tools, technologies and methods that are driving this digital transformation and collaborative approach to project delivery.

You'll gain practical experience using BIM software, including design authoring tools, such as Revit, ArchiCAD and Rhino, as well as design coordination and clash detection

tools, for example Navisworks and Solibri.

Other specialist software and hardware technologies will also be introduced. These range from 3D visualisation and animation software to virtual reality, parametric modelling, and sustainable environmental design.

Guided by academic experts, researchers and leading practitioners, you'll take part in a variety of team-based tasks and activities. These will provide you with experience of devising BIM implementation strategies, researching BIM in real-world contexts, and identifying and communicating the benefits and challenges of BIM for a project or organisation.

What you'll learn

- The theories, technologies, methods and processes underpinning BIM
- National and international BIM standards
- Innovations driving digital transformation in the architecture, engineering and construction industry
- How to use design authoring tools and design coordination and clash detection tools
- How to develop and communicate BIM implementation plans and recommendations
- How to design and manage effective workflows in collaborative BIM settings
- The role of BIM technologies in sustainable design and energy-efficient solutions
- The impact of BIM on the design, construction and operational stages of building projects

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Course content

Discover what you'll learn, what you'll study, and how you'll be taught and assessed.

Semester one

Modules

Compulsory modules	Credits
BIM THEORY, PRACTICE AND TOOLS (ARCH724)	30

Optional modules	Credits
VIRTUAL ENVIRONMENTS FOR ARCHITECTURE (ARCH708)	15
NET ZERO CARBON DESIGN (ARCH747)	15
COMPUTATIONAL DESIGN THEORY AND PRACTICE (ARCH777)	15

Programme details and modules listed are illustrative only and subject to change.

Semester two

Modules

Compulsory modules	Credits
RESEARCH METHODOLOGY (ARCH707)	15

Compulsory modules	Credits
BIM IMPLEMENTATION IN COLLABORATIVE ENVIRONMENTS (ARCH725)	15
INTEROPERABILITY AND DESIGN COORDINATION WITH BIM (ARCH745)	15

Optional modules	Credits
PARAMETRIC DESIGN AND DIGITAL FABRICATION (ARCH730)	15
SUSTAINABLE CONSTRUCTION AND MANAGEMENT (ARCH733)	15
HERITAGE DOCUMENTATION, DIGITISATION AND PRESENTATION (ARCH739)	15
DIGITAL TRANSFORMATION AND CONSTRUCTION 4.0 (ARCH743)	15

Programme details and modules listed are illustrative only and subject to change.

Final project

You must choose one of ARCH721 or ARCH722. You will only study one of these modules, not both.

Modules

Optional modules	Credits
THESIS: DISSERTATION (ARCH721)	60
THESIS: RESEARCH BY DESIGN (ARCH722)	60

Programme details and modules listed are illustrative only and subject to change.

Teaching and assessment

How you'll learn

You'll learn through a combination of lectures, small-group seminars, tutorials, group work, reflection and guided independent study.

Lectures will typically provide a broad introduction to key topics and debates, while seminars allow for group discussion and enable issues to be explored in greater depth.

How you're assessed

The assessment of this programme includes a variety of written essays, reports, blogs, portfolios, projects, and group and individual presentations.

Most of these diverse assessment methods are designed to mimic real-life scenarios. This includes developing a BIM implementation plan for a hypothetical project, for example, and communicating the benefits, issues and challenges of implementing BIM for design coordination to a project team.

You'll receive comprehensive feedback on your work at the end of each module.

Liverpool Hallmarks

We have a distinctive approach to education, the Liverpool Curriculum Framework, which focuses on research-connected teaching, active learning, and

authentic assessment to ensure our students graduate as digitally fluent and confident global citizens.

The Liverpool Curriculum framework sets out our distinctive approach to education. Our teaching staff support our students to develop academic knowledge, skills, and understanding alongside our **graduate attributes**:

- Digital fluency
- Confidence
- Global citizenship

Our curriculum is characterised by the three **Liverpool Hallmarks**:

- Research-connected teaching
- Active learning
- Authentic assessment

All this is underpinned by our core value of **inclusivity** and commitment to providing a curriculum that is accessible to all students.

Careers and employability

BIM is a rapidly growing area of architecture, engineering and construction, both in the UK and also globally. This programme enhances your employability by enabling you to get hands-on with a variety of design tools. You'll gain practical experience and insights using these innovative technologies.

A variety of tasks will familiarise you with the activities and real-world challenges that BIM professionals encounter in practice. They'll also enable you to demonstrate communication, teamwork, presentation and problem-solving skills.

BIM professionals are in high demand in a range of roles and industries relevant to the built environment.

These include careers in:

- Architecture
- Construction
- Management
- Project management
- Higher education
- The arts
- Conservation.

You may also wish to continue your studies and will find you are well prepared for PhD research.

Career support from day one to graduation and beyond

Career planning

From education to employment

Networking events

Fees and funding

Your tuition fees, funding your studies, and other costs to consider.

Tuition fees

UK fees (applies to Channel Islands, Isle of Man and Republic of Ireland)

Full-time place, per year - £11,700
Part-time place, per year - £5,850

International fees

Full-time place, per year - £26,600
Part-time place, per year - £13,300

Fees stated are for the 2025/26 academic year. Tuition fees for the academic year 2026/27 will be announced soon.

Tuition fees cover the cost of your teaching and assessment, operating facilities such as libraries, IT equipment, and access to academic and personal support.

- You can pay your tuition fees in instalments.
- All or part of your tuition fees can be funded by external sponsorship.
- International applicants who accept an offer of a place will need to pay a tuition fee deposit.

If you're a UK national, or have settled status in the UK, you may be eligible to apply for a Postgraduate Loan worth up to £12,167 to help with course fees and living costs. **Learn more about paying for your studies**.

Additional costs

We understand that budgeting for your time at university is important, and we want to make sure you understand any course-related costs that are not covered by your tuition fee. This could include buying a laptop, books, or stationery.

Find out more about the additional study costs that may apply to this course.

Entry requirements

The qualifications and exam results you'll need to apply for this course.

Postgraduate entry requirements

We accept a 2:2 honours degree from a UK university, or an equivalent academic qualification from a similar non-UK institution. This degree should be in a relevant field of study, e.g. Architecture, Landscape Architecture, Interior Design, Civil/Structural Engineering, Urban Design, Building, Project Management, Construction Management, Quantity Surveying, Architectural Engineering, Architectural Technology, Design Management, Building Surveying or Facility/Asset Management.

Non-graduates with very extensive professional experience and/or other prior qualifications may also be considered.

International qualifications

Select your country or region to view specific entry requirements.

Many countries have a different education system to that of the UK, meaning your qualifications may not meet our entry requirements. Completing your Foundation Certificate, such as that offered by the University of Liverpool International College, means you're guaranteed a place on your chosen course.

English language requirements

You'll need to demonstrate competence in the use of English language, unless you're from a majority English speaking country.

We accept a variety of international language tests and country-specific qualifications.

International applicants who do not meet the minimum required standard of English language can complete one of our Pre-Sessional English courses to achieve the required level.

IELTS

6.5 overall, with no component below 6.0

TOEFL iBT

88 overall, with minimum scores of listening 19, writing 19, reading 19 and speaking 20. TOEFL Home Edition not accepted.

Duolingo English Test

125 overall, with writing not less than 125, speaking and reading not less than 115, and listening not below 110. For academic year 2025/26 only, we will also accept the production, literacy, comprehension and conversation score set: 120 overall, with no component below 105.

Pearson PTE Academic

61 overall, with no component below 59

LanguageCert Academic

70 overall, with no skill below 65

PSI Skills for English

B2 Pass with Merit in all bands

INDIA Standard XII

National Curriculum (CBSE/ISC) - 75% and above in English. Accepted State Boards - 80% and above in English.

WAEC

C6 or above

Pre-sessional English

Do you need to complete a Pre-sessional English course to meet the English language requirements for this course?

The length of Pre-sessional English course you'll need to take depends on your current level of English language ability.

Pre-sessional English in detail

If you don't meet our English language requirements, we can use your most recent IELTS score, or [the equivalent score in selected other English language tests](#), to determine the length of Pre-sessional English course you require.

Use the table below to check the course length you're likely to require for your current English language ability and see whether the course is available on campus or online.

Your most recent IELTS score	Pre-sessional English course length	On campus or online
6.0 overall, with no component below 6.0	6 weeks	On campus
6.0 overall, with no component below 5.5	10 weeks	On campus and online options available
6.0 overall, with no more than one component below 5.5, and no component below 5.0	12 weeks	On campus and online options available
5.5 overall, with no more than one component below 5.5, and no component below 5.0	20 weeks	On campus
5.0 overall, with no more than one component below 5.0, and no component below 4.5	30 weeks	On campus
4.5 overall, with no more than one component below 4.5, and no	40 weeks	On campus

Your most recent IELTS score	Pre-sessional English course length	On campus or online
component below 4.0		

If you've completed an alternative English language test to IELTS, we may be able to use this to assess your English language ability and determine the Pre-sessional English course length you require.

Please see our guide to Pre-sessional English entry requirements for IELTS 6.5 overall, with no component below 6.0, for further details.

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