

MA

Advanced Architecture (Computational Design and AI)

Entry requirements Study mode Duration
2:2 honours degree Full-time 12 months

Apply by: 29 August 2025 Starts on: 22 September 2025

About this course

This pathway of the MA Advanced Architecture, focusing on Computational Design and AI, equips architects with expertise in cuttingedge computational techniques and artificial intelligence.

Introduction

Prospective students wishing to apply for this specialist pathway should select 'MA Advanced Architecture' in the online application form. You will then enrol on your chosen pathway when you register as a student.

The programme examines the integration of data-driven strategies, parametric modelling, and AI-enhanced tools into architectural design, empowering students to develop innovative, adaptive, and sustainable solutions. Combining theoretical insights with hands-on experimentation, you will explore algorithms, simulation software, and machine learning to refine designs, enhance creativity, and tackle complex challenges in the built environment.

Designed for students aspiring to lead in the evolving architectural landscape, this programme provides a deep understanding of how technology is reshaping design practices and the future of the industry.

There are opportunities to take part in field trips and visit world-leading exhibitions and practices. You will also meet professionals from renowned architectural firms.

Specialists from Heatherwick Studio, Foster + Partners and Zaha Hadid Architects are regular guests in our design reviews.

Visit the MA in Advanced Architecture website to see examples of projects undertaken by current students and recent graduates, as well as recent excursions and other activities.

The Liverpool School of Architecture is ranked in the world top 100 for Architecture (QS World University Rankings 2025), and 3rd in the UK (*Guardian University Guide 2025*).

Who is this course for?

This master's is particularly suitable for experienced architects or those from a design background who want to gain advanced technological skills, and how to apply these to architectural design.

What you'll learn

- Expertise in computational design, digital fabrication and Al-assisted architectural design
- Advanced design and technical skills, including parametric modelling and Alpowered tools
- Enhanced concepts and theories in architecture
- Applications of research to architectural design
- Insights and innovations from leading professionals in architecture

↑ Back to top

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
VIRTUAL ENVIRONMENTS FOR ARCHITECTURE (ARCH708)	15
ADVANCED DESIGN 1 (ARCH711)	30
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
ADVANCED DESIGN 2 (ARCH713)	30
PARAMETRIC DESIGN AND DIGITAL FABRICATION (ARCH730)	15

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

Final project

Modules

Compulsory modules	Credits
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

Teaching methods include lectures, small-group seminars, studio tutorials, group work and guided independent study.

Lectures will typically provide a broad introduction to key topics and debates, while seminars enable particular issues or design challenges to be explored and discussed in greater detail. Studio tutorials will develop your design strategies through small-group teaching led by a tutor.

How you're assessed

A range of assessment methods are used on this programme, including essays, presentations, reports, blogs, portfolios, case study research and practical group projects. You'll also develop a research proposal and complete a dissertation or research design project.

Studio work is formally assessed by a digital portfolio at the end of each semester.

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.

∧ Back to top

Careers and employability

Although this programme does not carry RIBA/ARB accreditation, you'll be studying with the UK's first Royal Institute of British Architects (RIBA) accredited University School of Architecture.

Learning from experts engaged in highly rated international research, your employability will be enhanced through gaining specialist knowledge and putting your skills into practice. You can tailor your module choice to maximise its relevance and suitability to your future career.

The specialist structure of this pathway will prepare you for employment in the following fields:

- Architecture
- Engineering
- Interior architecture
- Interior design
- Environmental design
- Urban planning
- Computational design
- BIM coordination

You will gain highly advanced skills in software, architectural technology, design, presentation and research, which are coveted in both the public and private sectors.

Alternatively, you may wish to continue your studies and will find that you are well prepared for PhD research.

Career support from day one to graduation and beyond

Career planning

From education to employment

Networking events

∧ Back to top

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

International fees

Full-time place, per year - £26,600

Fees stated are for the 2025-26 academic year.

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 <u>pay your tuition fees in instalments</u>.
- 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 <u>pay a tuition fee deposit</u>.

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 <u>additional study costs</u> 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 Architecture (or a closely related subject e.g. Landscape Architecture, Interior/Art Design, Civil/Structural Engineering or Urban Design). Please contact us if you wish to check whether your degree subject is suitable, however a wide spectrum of subjects are acceptable.

Candidates who do not meet these requirements will be considered on their individual merits and should discuss their particular circumstances with the Programme Director.

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 <u>University of Liverpool International College</u>, 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 <u>international language tests</u> and <u>country-specific qualifications</u>.

International applicants who do not meet the minimum required standard of English language can complete one of our <u>Pre-Sessional English courses</u> 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 <u>the equivalent score in selected other English language tests</u>, 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

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 Presessional English course length you require.

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

∧ Back to top

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