

MEng

# **Civil and Structural Engineering**

UCAS code H220

Entry requirementsStudy modeDurationA level: AABFull-time4 years

Apply by: **29 January 2025** Starts on: **22 September 2025** 

## **About this course**

Whether you are interested in designing roads, airports, bridges, stadia, hospitals, power stations, harbours or water supply systems, a degree in Civil Engineering will teach you the latest construction technologies and design methods. There has never been a greater need for well qualified Civil Engineers: towns and coasts in need of flood defences; people and freight in need of safe and efficient transport systems; ever more urgent challenges in environmental conservation, sustainable design and infrastructure maintenance.

## Introduction

Our emphasis is on active learning, supported by traditional lectures and tutorials, as well as the opportunities to be involved in research-led teaching, conducted in collaboration with industry, government, research laboratories and academics around the world.

The programme gives you the opportunity to undertake an individual research project in year three. Teaching staff offer projects based on their research expertise.

In year four, you will undertake a multidisciplinary group design project that brings together students specialising in various aspects of civil engineering, to work as a

team to produce a portfolio. Students on the Civil and Structural Engineering programme will be acting as structural engineers for the project. Recent projects have included a ferry terminal scheme and an Olympic-size swimming pool.

This programme also has a year abroad option, an incredible opportunity to spend an academic year at one of our partner universities. On the 4-year integrated masters programme, you can go abroad either between Year 2 and 3 (apply in Year 2) OR Year 3 and 4 (apply in Year 3).

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## What you'll learn

- The key aspects underpinning the field of Civil Engineering
- Leading and working in teams
- · How to undertake research
- Adapting to a busy hands-on industry environment
- Critical thinking
- Teamwork
- How to present and communicate clearly

## **Accreditation**

This degree is accredited by the Joint Board of Moderators (JBM) comprising the Institution of Civil Engineers, Institution of Structural Engineers, Institute of Highway Engineers, the Chartered Institution of Highways and Transportation and the Permanent Way Institution on behalf of the Engineering Council for the purposes of fully meeting the academic requirement for registration as a Chartered Engineer (CEng).

See www.jbm.org.uk for further information.

## **Accreditation in detail**



These programmes are accredited by the Joint Board of Moderators, which represents five major civil engineering institutions and accredits civil engineering programmes on behalf of the Engineering Council, which sets and maintains the standards for the engineering profession in the UK. The MEng degree is accredited as fully satisfying the educational base for a Chartered Engineer (CEng). The BEng degree is accredited as: (i) fully satisfying the educational base for an Incorporated Engineer (IEng) and (ii) partially satisfying the educational base for a Chartered Engineer (CEng). A programme of accredited further learning will be required to complete the educational base for CEng. See jbm.org.uk for further information and details of further learning programmes for CEng.

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# **Course content**

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

#### Year one

## **Modules**

Compulsory modules	Credits
GEOMECHANICS 1 (CIVE120)	7.5
ENGINEERING MATHEMATICS (MATH198)	22.5
SOLIDS AND STRUCTURES 1 (ENGG110)	15
ENERGY SCIENCE (ENGG116)	15
CIVIL AND ARCHITECTURAL ENGINEERING PROJECTS (CIVE162)	30
INTRODUCTION TO ENGINEERING MATERIALS (MATS105)	15
DIGITAL ENGINEERING (CIVE125)	15

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

## **Year two**

## **Modules**

Compulsory modules	Credits
GEOMECHANICS 2 (CIVE220)	15
GROUP DESIGN PROJECT (CIVE263)	15
HYDRAULICS (CIVE210)	15
STRUCTURAL ELEMENT DESIGN (CIVE241)	15
ENVIRONMENTAL PLANNING AND INFRASTRUCTURE PROJECT (CIVE261)	15
PROGRAMMING FOR CIVIL ENGINEERS (CIVE286)	7.5
ENGINEERING MATHEMATICS II (CIVE299)	7.5
STRUCTURAL BEHAVIOUR (CIVE203)	15
TRANSPORTATION ENGINEERING AND MODELLING (CIVE212)	7.5
ENVIRONMENTAL ENGINEERING 1 (CIVE204)	7.5

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

## **Year three**

## **Modules**

Compulsory modules	Credits
INDIVIDUAL PROJECT (ENGG341)	30
GEOTECHNICAL ENGINEERING (CIVE320)	15

Compulsory modules	Credits
STRUCTURAL DYNAMICS (ENGG301)	7.5
EARTHQUAKE ENGINEERING (CIVE342)	7.5
SUSTAINABLE DESIGN AND CONSTRUCTION MANAGEMENT (CIVE350)	15
OLD STRUCTURES OF STEEL, TIMBER AND MASONRY (CIVE334)	15
INTRODUCTION TO FINITE ELEMENTS (ENGG302)	7.5
STRUCTURAL PLANNING (CIVE340)	15
UNCERTAINTY, RELIABILITY AND RISK 1 (ENGG304)	7.5

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

## **Year four**

# **Modules**

Compulsory modules	Credits
ADVANCED GEOMECHANICS (CIVE420)	15
CAPSTONE: MULTIDISCIPLINARY PROJECT (CIVE462)	30
MATERIALS FOR DURABLE AND SUSTAINABLE CONSTRUCTION (CIVE401)	15
STRUCTURAL SYSTEMS (CIVE405)	15
ADVANCED CONSTRUCTION MANAGEMENT (CIVE450)	15

Compulsory modules	Credits
RISK AND UNCERTAINTY: PROBABILITY THEORY (ENGG404)	7.5
STRUCTURAL OPTIMISATION (ENGG414)	7.5
TECHNOLOGY 3.1: INTEGRATED TECHNICAL PROJECT DESIGN (ARCH361)	15

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

## **Teaching and assessment**

# How you'll learn

Our degree programmes encompass the development of a holistic, systems approach to engineering. Technical knowledge and skills are complemented by a sound appreciation of the life-cycle processes involved in engineering and an awareness of the ethical, safety, environmental, economic, and social considerations involved in practicing as a professional engineer.

You will be taught through a combination of face-to-face teaching in group lectures, laboratory sessions, tutorials, and seminars. Our programmes include a substantial practical component, with an increasing emphasis on project work as you progress through to the final year. You will be supported throughout by an individual academic adviser.

# How you're assessed

Assessment takes many forms, each appropriate to the learning outcomes of the particular module studied. The main modes of assessment are coursework and examination. Depending on the modules taken, you may encounter project work, presentations (individual and/or group), and specific tests or tasks focused on solidifying learning outcomes.

# **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.

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# Careers and employability

Our degrees provide pathways into rewarding careers and our graduates have found employment in a wide range of international industries and organisations. As well as achieving a degree qualification, you will graduate as an industry-ready engineer who has both practical experience and highly desirable skills in the engineering industry.

Recent graduates have gone on to work for companies in the following industries:

- Engineering and Infrastructure: ABB Ltd, Arup, Atkins, Balfour Beatty, Bentley, Corus, Halcrow, Laing O'Rourke, Mott Macdonald, Mouchel, Ramboll, Royal Haskoning, Siemens, Tarmac.
- Aerospace and Aviation: Airbus, British Airways, Jaguar Land Rover, Rolls Royce.
- Construction and Project Management: Costain, Metronet Rail.
- Defence and Military: BAE Systems, British Army, RAF (Royal Air Force), Royal Navy.
- Energy and Utilities: BMI, National Grid Transco, National Nuclear Laboratory, United Utilities.
- Government organizations: Government organisations (not specifically listed),
  Highways Agency, Network Rail.
- Glass and Materials: Pilkington.
- Technology and Research: QinetiQ.

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# 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 - £9,535 Year abroad fee - £1,430 (applies to year in China)

#### International fees

Full-time place, per year - £29,100 Year abroad fee - £14,550 (applies to year in China)

The tuition fees shown are correct for 2025/26 entry. Please note that the year abroad fee also applies to the year in China.

Tuition fees cover the cost of your teaching and assessment, operating facilities such as libraries, IT equipment, and access to academic and personal support. 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 includes a lab coat, safety boots, and a residential construction course.

Students should expect to cover the following costs:

#### Lab coats

Students are required to wear a lab coat for all Engineering laboratory sessions. Students may purchase a lab coat at the start of the year from the Student Support Office at a subsidised cost of £15.

#### **Safety boots**

Students will be required to wear safety shoes or boots (with both toe cap and

midsole protection conforming to European safety legislation) for some activities. Boots must be provided by the students.

## Other safety equipment.

All essential safety equipment, other than those listed above, is provided free of charge by the department.

## The 'Constructionarium'

During year two, you will have a week of residential, hands-on construction experience at 'The Constructionarium'. There is an additional cost of up to £250 for the Constructionarium.

Find out more about additional study costs.

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# **Entry requirements**

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

#### A levels

AAB including Mathematics.

Applicants with the Extended Project Qualification (EPQ) are eligible for a reduction in grade requirements. For this course, the offer is **ABB** with **A** in the EPQ.

You may automatically qualify for reduced entry requirements through our contextual offers scheme. Based on your personal circumstances, you may automatically qualify for up to a two-grade reduction in the entry requirements needed for this course. When you apply, we consider a range of factors – such as where you live – to assess if you're eligible for a grade reduction. You don't have to make an application for a grade reduction – we'll do all the work.

Find out more about how we make reduced grade offers.

#### **T levels**

T levels are not currently accepted.

#### **GCSE**

4/C in English and 4/C in Mathematics

#### **Subject requirements**

Mathematics.

For applicants from England: For science A levels that include the separately graded practical endorsement, a "Pass" is required.

#### **BTEC Level 3 National Extended Certificate**

Acceptable at grade Distinction\* alongside BB at A level including A Level Mathematics.

#### **BTEC Level 3 Diploma**

Distinction\* Distinction\* in relevant BTEC considered alongside A Level Mathematics grade B. Accepted BTECs include Aeronautical, Aerospace, Construction, Mechanical, Mechatronics and Engineering.

#### **BTEC Level 3 National Extended Diploma**

D\*DD in acceptable BTEC, plus B in A level Maths (not accepted without B in A level Maths)

#### **International Baccalaureate**

35 overall, including 5 at Higher Level Mathematics.

#### **Irish Leaving Certificate**

H1,H1,H2,H2,H2,H3, including H2 in Higher Maths. We also require a minimum of H6 in Higher English or O3 in Ordinary English

## Scottish Higher/Advanced Higher

AAB including Maths

#### **Welsh Baccalaureate Advanced**

Acceptable at grade B alongside AA in A Levels including A Level Mathematics.

#### Cambridge Pre-U Diploma

D3 in Cambridge Pre U Principal Subject is accepted as equivalent to A-Level grade A M2 in Cambridge Pre U Principal Subject is accepted as equivalent to A-Level grade B Global Perspectives and Short Courses are not accepted.

#### Access

Considered if taking a relevant subject. Check with Department or Admissions team.

### International qualifications

Select your country or region to view specific entry requirements.

If you hold a bachelor's degree or equivalent, but don't meet our entry requirements, you could be eligible for a Pre-Master's course. This is offered on campus at the <u>University of Liverpool International College</u>, in partnership with Kaplan International Pathways. It's a specialist preparation course for postgraduate study, and when you pass the Pre-Master's at the required level with good attendance, you're guaranteed entry to a University of Liverpool master's degree.

# **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-</u> specific qualifications.

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**

6.0 overall, with no component below 5.5

#### **TOEFL IBT**

78 overall, with minimum scores of listening 17, writing 17, reading 17 and speaking 19. TOEFL Home Edition not accepted.

#### **TOEFL Paper**

Grade 6 at Standard Level or grade 5 at Higher Level

#### **Duolingo English Test**

115 overall, with speaking, reading and writing not less than 105, and listening not below 100

#### **Pearson PTE Academic**

59 overall, with no component below 59

#### LanguageCert Academic

65 overall, with no skill below 60

#### Cambridge IGCSE First Language English 0500

Grade C overall, with a minimum of grade 2 in speaking and listening. Speaking and listening must be separately endorsed on the certificate.

#### Cambridge IGCSE First Language English 0990

Grade 4 overall, with Merit in speaking and listening

## Cambridge IGCSE Second Language English 0510/0511

0510: Grade C overall, with a minimum of grade 2 in speaking. Speaking must be separately endorsed on the certificate. 0511: Grade C overall.

## Cambridge IGCSE Second Language English 0993/0991

0993: Grade 5 overall, with a minimum of grade 2 in speaking. Speaking must be separately endorsed on the certificate. 0991: Grade 5 overall.

## Cambridge ESOL Level 2/3 Advanced

169 overall, with no paper below 162

#### LanguageCert

Grade 4 at Standard Level or grade 4 at Higher Level

# **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
5.5 overall, with no component below 5.5	6 weeks	On campus
5.5 overall, with no component below 5.0	10 weeks	On campus and online options available
5.0 overall, with no component below 5.0	12 weeks	On campus and online options available
5.0 overall, with no component below 4.5	20 weeks	On campus
4.5 overall, with no component below 4.5	30 weeks	On campus
4.0 overall, with no component below 4.0	40 weeks	On campus

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 <u>Pre-sessional English entry requirements</u> for IELTS 6.0 overall, with no component below 5.5, for further details.

# Alternative entry requirements

- If your qualification isn't listed here, or you're taking a combination of qualifications, contact us for advice
- Applications from mature students are welcome.

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