



UNIVERSITY OF
LIVERPOOL

MEng

Mechanical Engineering with a Year in Industry

UCAS code H303

Entry requirements

A level: AAB

Study mode

Full-time

Duration

5 years

Apply by: **14 January 2026**

Starts on: **28 September 2026**

About this course

Study Mechanical Engineering and learn to design, build and test new products, processes and systems. You'll develop holistic engineering knowledge and problem solving abilities as you work towards an industry-accredited degree that's sought after in a wide range of sectors. This Master of Engineering degree satisfies the academic requirements for you to register as a Chartered Engineer and allows for a year-long industry work placement.

Introduction

Mechanical engineering is one of the oldest and broadest engineering disciplines and is the basis for a wide range of careers in engineering and beyond.

Our professionally accredited Mechanical Engineering programme offers an exciting blend of learning experiences. You'll master the fundamentals of mechanical engineering science and develop the skills, attitudes and experience demanded by 21st century engineering and society. You'll spend as much time outside the lecture theatre as possible, working in teams to apply your learning in the solution of practical problems. Graduates are well prepared for their careers ahead, and industry recognises them as highly employable.

Mechanical engineering students learn a wide range of theory and skills. This includes engineering science and practical skills such as project management and computer programming.

You'll learn in a modern, well-equipped environment that includes up-to-date laboratories, tools and computing hardware and software.

What you'll learn

- Design, build and test products and systems
 - Mechanical engineering scientific fundamentals
 - Thermodynamics
 - Fluid and solid mechanics
 - Dynamic systems
 - Materials
 - Electronics and mathematics
 - Project management
 - Computer programming
 - Engineering design
 - Collaborative design
-

Accreditation

Mechanical engineering programmes are accredited (or pending accreditation), by the Institution of Mechanical Engineers. They're a recognised qualification on the route to Chartered Engineer status.

Accreditation in detail

Institution of Mechanical Engineers

All mechanical engineering programmes are accredited, or pending accreditation, by the Institution of Mechanical Engineers. This is the professional body for Mechanical Engineers. Our programmes are a recognised qualification on the route to Chartered Engineer status.

^ [Back to top](#)

Course content

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

Year one

Years one and two give students the scientific understanding underpinning the practice of professional engineering. You'll also learn about project management, computer programming, and engineering design.

Modules

Compulsory modules	Credits
<u>SOLIDS AND STRUCTURES 1 (ENGG110)</u>	15
<u>PROFESSIONAL ENGINEERING: A SKILLS TOOLKIT (ENGG111)</u>	30
<u>ENERGY SCIENCE (ENGG116)</u>	15
<u>DIGITAL ENGINEERING (ENGG125)</u>	15
<u>ENGINEERING MATHEMATICS (ENGG198)</u>	22.5
<u>MECHANICAL PRODUCT DISSECTION (MECH109)</u>	7.5
<u>INTRODUCTION TO ENGINEERING MATERIALS (MATS105)</u>	15

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

Year two

Years one and two give students the scientific understanding underpinning the practice of professional engineering. You'll also learn about project management,

computer programming, and engineering design.

Modules

Compulsory modules	Credits
<u>AEROENGINES (AERO213)</u>	15
<u>EXPERIMENTAL METHODS (ENGG201)</u>	7.5
<u>SOLIDS & STRUCTURES 2 (ENGG209)</u>	15
<u>ENGINEERING MATHEMATICS AND COMPUTING (ENGG295)</u>	15
<u>ENGINEERING DESIGN (MECH212)</u>	15
<u>DYNAMIC SYSTEMS (MECH215)</u>	15
<u>THERMODYNAMICS (MECH217)</u>	15
<u>PROJECT MANAGEMENT (MNGT202)</u>	7.5
<u>ENGINEERING MATERIALS PROCESSING & SELECTION (MATS201)</u>	15

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

Year in industry

Get work experience and enhance your employability on a year-long placement with an approved organisation.

You'll source your own industry placement with the support from the School of Engineering. Industry placements are sought after and competition to be accepted, so a placement cannot be guaranteed. You'll transfer to the standard version of the programme if you can't secure a placement.

International students are eligible for the year in industry, though [restrictions may apply](#).

Modules

Compulsory modules	Credits
SCHOOL OF ENGINEERING YEAR IN INDUSTRY (ENGG299)	120

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

Year four

In years four and five students move on to study advanced engineering science and undertake a 300-hour individual research project on a topic of their choice.

Modules

Compulsory modules	Credits
INDIVIDUAL PROJECT (ENGG341)	30
HEAT TRANSFER (MECH301)	15
VIBRATION AND CONTROL (MECH303)	15
ENGINEERING FLUID MECHANICS (MECH326)	15
MECHANICAL ENGINEERING CAPSTONE 1 (MECH327)	15
ADVANCED MODERN MANAGEMENT (MNGT352)	7.5
COMPUTATIONAL METHODS IN ENGINEERING (ENGG386)	15

Compulsory modules	Credits
<u>MECHATRONICS (MECH316)</u>	7.5

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

Year five

In years four and five students move on to study advanced engineering science and undertake a 300-hour individual research project on a topic of their choice.

Modules

Compulsory modules	Credits
<u>ADVANCED FLUID MECHANICS AND AERODYNAMICS (AERO406)</u>	15
<u>STRUCTURAL INTEGRITY (ENGG409)</u>	15
<u>MECHANICAL ENGINEERING CAPSTONE 2 (MECH431)</u>	30
<u>ENERGY AND THE ENVIRONMENT (MECH433)</u>	15
<u>NUCLEAR TECHNOLOGIES (MECH434)</u>	7.5
<u>ENTERPRISE STUDIES (MNGT414)</u>	7.5

Optional modules	Credits
<u>MUSCULOSKELETAL BIOMECHANICS (ENGG410)</u>	15
<u>TISSUE ENGINEERING (ENGG412)</u>	15

Optional modules	Credits
<u>ADVANCED 4TH YEAR RESEARCH PROJECT (ENGG443)</u>	15
<u>STRUCTURAL BIOMATERIALS (MATS410)</u>	15
<u>LASER MATERIALS PROCESSING (MECH605)</u>	15
<u>INDUSTRIAL ROBOTICS AND AUTOMATED ASSEMBLY (MNFG409)</u>	15
<u>ADDITIVE MANUFACTURING (MNFG603)</u>	15
<u>ADVANCED ENGINEERING MATERIALS (MATS631)</u>	15

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

Teaching and assessment

How you'll learn

We are leading the UK's involvement in the international [Conceive-Design-Implement-Operate \(CDIO\)](#) initiative – an innovative educational framework for producing the next generation of engineers.

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.

You'll study in [The School of Engineering](#), which hosts modern, world-class teaching and learning facilities. This includes the Active Learning Laboratories, which feature lab space, manufacturing robots and prototyping facilities so you

can learn, build and test. You'll also have access to high-spec workstations featuring industry-standard engineering software.

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.

^ [Back to top](#)

Careers and employability

Mechanical engineering graduates are sought after in engineering fields and a wide range of other sectors. Graduates go on to work in engineering fields including healthcare, food production, aerospace, construction, power generation and manufacturing.

Recent employers of Mechanical Engineering graduates include:

- Aerospace/Aviation: Airbus, British Airways, Jaguar Land Rover, Rolls Royce
- Engineering/Construction: Arup, Balfour Beatty, Bentley, Tata Steel, Mott Macdonald, Mouchel, Pilkington, Siemens, Tarmac
- Defence/Military: BAE Systems, British Army, Royal Air Force, Royal Navy
- Utilities/Energy: National Grid, National Nuclear Laboratory, United Utilities
- Transportation/Infrastructure: Highways Agency, Network Rail.

^ [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 – £9,535

Year in industry fee – £1,850

International fees

Full-time place, per year – £29,100

Year in industry fee – £1,850

Fees are for academic year 2025/26.

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 may include a laptop, books, or stationery. All safety equipment, other than boots, is provided free of charge by the department.

Find out more about the [additional study costs](#) that may apply to this course.

^ [Back to top](#)

Entry requirements

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

A levels

AAB

Mathematics and a second science.

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

Applicants following the modular Mathematics A Level must be studying A Level Physics or Further Mathematics as the second science (or must be studying at least one Mechanics module in their Mathematics A Level).

Accepted science subjects:

Applied ICT

Biology (and Human Biology)

Chemistry

Computer Science

Economics

Electronics

Environmental Science

Further Mathematics
Geography
Geology
ICT
Life and Health Sciences
Mathematics
Psychology
Physics
Statistics.

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 in A Level Mathematics and a second science.

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

34 points overall and no score less than 4 and including 5 in HL Mathematics and 5 in HL Physics, or pass the IB Diploma with 6,6,5 in three Higher Level subjects, including 5 in HL Mathematics and 5 in HL Physics.

Irish Leaving Certificate

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

Scottish Higher/Advanced Higher

Pass Scottish Advanced Highers with grades AAB including Mathematics and a second science

Welsh Baccalaureate Advanced

B in the Welsh Baccalaureate, plus AA at A level, including Mathematics and a second science subject.

Access

Pass Access to HE Diploma in a relevant with 45 Level 3 credits, with 36 at Distinction (including 15 Level 3 in Mathematics credits) and 9 at Merit.

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 [University of Liverpool International College](#), 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 [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

6.0 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.

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

International Baccalaureate English A: Literature or Language & Literature

Grade 4 at Standard Level or grade 4 at Higher Level

International Baccalaureate English B

Grade 6 at Standard Level or grade 5 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	12 weeks	On campus and online

Your most recent IELTS score	Pre-sessional English course length	On campus or online
component below 5.0		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 [Pre-sessional English entry requirements](#) 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.

^ [Back to top](#)

Generated: 24 Jul 2025, 19:14

© University of Liverpool