UNIVERSITY OF LIVERPOOL

Engineering MEng

COURSE DETAILS

- A level requirements: AAA
- UCAS code: H101
- Study mode: Full-time
- Length: 4 years

KEY DATES

- Apply by: 29 January 2025
- Starts: 22 September 2025

Course overview

Study Engineering and you will have the opportunity to delve into a huge range of disciplines. Become a problem solver, not just learning how to fix things but to develop and invent from the very start.

INTRODUCTION

Following a broad first year of study covering all disciplines within the School, students on this programme will be required to transfer their registration onto one of the following engineering programmes, depending on whether they are on the three or four-year programme.

• Aerospace Engineering MEng (H421)
• Mechanical Engineering MEng (H301)
• Product Design Engineering MEng (HW25)

WHAT YOU'LL LEARN

- Design, build and test products and systems
- Computer programming
- Engineering design
- Collaborative design
- How to conduct independent research
- How to deal with complex problems that may require compromise to meet competing requirements

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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

COMPULSORY MODULES

MECHANICAL PRODUCT DISSECTION (MECH109)

Credits: 7.5 / Semester: semester 1

This is predominantly a practical module in which students work in small groups to examine in detail the workings and manufacture of a single-cylinder, 4-stroke petrol engine by dismantling it into component parts and documenting the disassembly process in a Wiki.

SOLIDS AND STRUCTURES 1 (ENGG110)

Credits: 15 / Semester: semester 2

This module aims to introduce students to the fundamental concepts and theory of how engineering structures work to sustain loads. It will also show how stress analysis leads to the design of safer structures. It will also provide students with the means to analyse and design basic structural elements as used in modern engineering structures.

ENERGY SCIENCE (ENGG116)

Credits: 15 / Semester: semester 2

To develop an understanding of the basic principles of fluid mechanics, the laws of thermodynamics, and an appreciation of how to solve simple engineering problems. To develop skills in performing and reporting simple experiments.

PROFESSIONAL ENGINEERING: A SKILLS TOOLKIT (ENGG111)

Credits: 30 / Semester: semester 3

This module aims to provide students with an interesting and engaging project that will help them to immediately relate the material being taught,both within and without this module, to a practical problem that is identifiable to their engineering discipline, thus reinforcing its relevance to the topixc.

The module:
1) Seeks to provide students with an early understanding of the preliminary design processes
2) Will introduce students to formal engineering drawing and visualisation
3) Will expose the students to group work and the dynamics of working in a team
4) Will expose students to the complexity of an engineering design task
5) Will enable students to develop data analysis and plotting skills
6) Will embody an approach to learning that will engage the students for the remainder of their lives
7) Seeks to provide students with an early understanding of the detail design and manufacturing process
8. Will introduce students to industry standard computer aided engineering drawing tools and practice
9. Will enable students to develop report writing and oral presentation skills
10. Will provide students with a basic understanding of engineering components and mechanisms
11. Will embody an approach to learning that will engage the students for the remainder of their lives

ENGINEERING MATHEMATICS (ENGG198)

Credits: 22.5 / Semester: semester 2

ENGG198 is a Year 1 mathematics module for students of programmes taught in the School of Engineering, e.g. Aerospace, Civil, Architectural, Mechanical, Product Design and Industrial Design Engineering. It is designed to reinforce and build upon A-level (or equivalent) mathematics, providing you with the strong background required in your engineering studies and preparing you for Year 2 mathematics modules.

INTRODUCTION TO ENGINEERING MATERIALS (MATS105)

Credits: 15 / Semester: semester 2

To provide students with a basic introduction to various classes of engineering materials, their mechanical properties, deformation and failure and how the properties structure and processing can be controlled to design materials with desired properties for various engineering applications.

DIGITAL ENGINEERING (ENGG125)

Credits: 15 / Semester: semester 2

Students completing the module should be able to understand simple computer programs and write their own simple MATLAB programs to solve problems and process data as required by other modules and in engineering practice.
Students completing the module will be able to understand simple electrical circuits with passive and active components, mechanical (mass-spring-damper) systems and electromechanical systems (DC machines). They will learn basic mathematical, practical and computational methods for analysing and modelling these.

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

YEAR TWO

Year two follows your chosen path from your choice of the following:

- Aerospace Engineering MEng (H421)
- Mechanical Engineering MEng (H301)

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

YEAR THREE

Year three follows your chosen path from your choice of the following:

- Aerospace Engineering MEng (H421)
- Mechanical Engineering MEng (H301)

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

YEAR FOUR

Year four follows your chosen path from your choice of the following:

- Aerospace Engineering MEng (H421)
- Mechanical Engineering MEng (H301)

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

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.

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.

Careers and employability

Engineering graduates are sought after in a variety of 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 Engineering graduates include:

- Airbus
- Arup
- BAE Systems
- Balfour Beatty
- Bentley
- BMI
- British Airways
- British Army
- Corus
- Highways Agency
- Jaguar Land Rover
- Mott Macdonald
- Mouchel
- National Grid Transco
- National Nuclear Laboratory
- Network Rail
- Pilkington
- RAF
- Rolls Royce
- Royal Navy
- Siemens
- Tarmac
- United Utilities.

4 IN 5 **OF OUR ENGINEERING STUDENTS FIND THEIR MAIN ACTIVITY AFTER GRADUATION MEANINGFUL.**

Graduate Outcomes, 2018-19.

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	£9,250
Year in industry fee	£1,850
Year abroad fee	£1,385

International fees	
Full-time place, per year	£27,200
Year abroad fee	£13,600

Fees shown are for the academic year 2024/25. 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 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.

SCHOLARSHIPS AND BURSARIES

We offer a range of scholarships and bursaries that could help pay your tuition and living expenses.

We've set the country or region your qualifications are from as United Kingdom. Change it here

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RIGBY ENTERPRISE AWARD

- Home students

Are you a UK student with a household income of £25,000 or less? If you've participated in an eligible outreach programme, you could be eligible to apply for a Rigby Enterprise Award worth £5,000 per year for three years of your undergraduate degree.

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THE LIVERPOOL BURSARY

- Home students

If you're a UK student joining an undergraduate degree and have a household income below £35,000, you could be eligible for a Liverpool Bursary worth up to £2,000 for each year of undergraduate study.

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ASYLUM SEEKERS SCHOLARSHIP

- Home students

Apply for an Asylum Seekers Scholarship and you could have your tuition fees paid in full and receive help with study costs. You'll need to have applied for asylum in the UK, or be the dependant of an asylum seeker, and be joining an eligible undergraduate degree.

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CARE LEAVERS' OPPORTUNITY BURSARY

- Home students

If you've spent 13 or more weeks in Local Authority care since age 14, you could be eligible for a bursary of £3,000 per year of study. You'll need to be a UK student joining an eligible undergraduate degree and be aged 28 or above on 1 September in the year you start.

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COWRIE FOUNDATION SCHOLARSHIP

- Home students

Are you a UK student with a Black African or Caribbean heritage and a household income of £25,000 or less? You could be eligible to apply for a Cowrie Foundation Scholarship worth up to £8,000 for each year of undergraduate study.

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ESTRANGED STUDENTS BURSARY

- Home students

If you're a UK student identified as estranged by Student Finance England (or the equivalent UK funding body), you could be eligible for a bursary of £1,000 for each year of

undergraduate study.

- ## GENESYS LIFE SCIENCES SCHOLARSHIP

  - Home students

Joining a School of Biosciences degree and have a household income of less than £25,000? If you're a UK student, you could apply to receive £4,500 per year for three years of your undergraduate course.

- ## GRADUATE ASSOCIATION HONG KONG & TUNG UNDERGRADUATE SCHOLARSHIPS

  - International students
  - Hong Kong

If you're an undergraduate student from Hong Kong who can demonstrate academic excellence, you may be eligible to apply for a scholarship worth £10,000 in partnership with the Tung Foundation.

- ## NOLAN SCHOLARSHIPS

  - Home students

Do you live in the Liverpool City Region with a household income of £25,000 or less? Did neither of your parents attend University? You could be eligible to apply for a Nolan Scholarship worth £5,000 per year for three years of undergraduate study.

- ## ROLABOTIC SCHOLARSHIP

  - Home students

Are you a UK student with a household income of £25,000 or less? Did neither of your parents attend University? You could be eligible to apply for a ROLABOTIC Scholarship worth £4,500 for each year of your undergraduate degree.

- ## SPORT LIVERPOOL PERFORMANCE PROGRAMME

  - Home and international students

Apply to receive tailored training support to enhance your sporting performance. Our athlete support package includes a range of benefits, from bespoke strength and conditioning training to physiotherapy sessions and one-to-one nutritional advice.

- ## TECHNETIX BROADHURST ENGINEERING SCHOLARSHIP

  - Home students

Joining a degree in the School of Electrical Engineering, Electronics and Computer Science? If you're a UK student with household income below £25,000, you could be eligible to apply for £5,000 a year for three years of study. Two awards will be available per academic year.

- ## UNDERGRADUATE GLOBAL ADVANCEMENT SCHOLARSHIP

  - International students

If you're a high-achieving international student starting an undergraduate degree with us from September 2024, you could be eligible to receive a fee discount of up to £5,000. You'll need to achieve grades equivalent to AAA in A levels and be joining a non-clinical degree.

- ## UNIVERSITY OF LIVERPOOL INTERNATIONAL COLLEGE EXCELLENCE SCHOLARSHIP

  - International students

Completed a Foundation Certificate at University of Liverpool International College (UoLIC)? We're offering a £5,000 fee discount off the first year of undergraduate study to some of the highest achieving students joining one of our non-clinical degrees from UoLIC.

- ## UNIVERSITY OF LIVERPOOL INTERNATIONAL COLLEGE FIRST CLASS SCHOLARSHIP

  - International students

We're offering a £1,000 fee discount for years 2 and 3 of undergraduate study to eligible students progressing from University of Liverpool International College. You'll need to be studying a non-clinical subject and get an average of 70% or above in year 1 of your degree.

- ## UNIVERSITY OF LIVERPOOL INTERNATIONAL COLLEGE IMPACT PROGRESSION SCHOLARSHIPS

  - International students

If you're a University of Liverpool International College student awarded a Kaplan Impact Scholarship, we'll also consider you for an Impact Progression Scholarship. If selected, you'll receive a £3,000 fee discount off the first year of your undergraduate degree.

- ## YOUNG ADULT CARER'S (YAC) BURSARY

  - Home students

If you're a young adult and a registered carer in the UK, you might be eligible for a £1,000 bursary for each year of study. You'll need to be aged 18-25 on 1 September in the year you start your undergraduate degree.

Entry requirements

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

Your qualification	**Requirements** About our typical entry requirements
A levels	AAA including 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 **AAB** with **A** in the EPQ. You may automatically qualify for reduced entry requirements through our contextual offers scheme.
GCSE	4/C in English and 4/C in Mathematics
Subject requirements	Mathematics and a second science. 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 are Biology, Chemistry, Computing, Economics, Electronics, Environmental Science, Further Mathematics, Geography, Geology, Human Biology, Physics and 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 AA in A Level Mathematics and a second science.
BTEC Level 3 Diploma	D*D in relevant BTEC considered alongside A Level Mathematics grade A. Accepted BTECs include Aeronautical, Aerospace, Mechanical, Mechatronics and Engineering.

Your qualification	**Requirements** About our typical entry requirements
BTEC Level 3 National Extended Diploma	Not accepted without grade A in A Level Mathematics.
International Baccalaureate	35 overall, including 5 at Higher Level Mathematics and Physics.
Irish Leaving Certificate	H1, H1, H2, H2, H2, H2 including H1 in Higher Mathematics and Higher Second Science.
Scottish Higher/Advanced Higher	Pass Scottish Advanced Highers with grades AAA including Mathematics and a second science.
Welsh Baccalaureate Advanced	Not accepted.
Cambridge Pre-U Diploma	D3 in Cambridge Pre U Principal Subject is accepted as equivalent to A-Level grade A Global Perspectives and Short Courses are not accepted.
Access	Not accepted.
International qualifications	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.

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.

THE ORIGINAL REDBRICK