



UNIVERSITY OF
LIVERPOOL

BEng (Hons)

Aerospace Engineering

UCAS code H425

Entry requirements

A level: AAB

Study mode

Full-time

Duration

3 years

Apply by: **14 January 2026**

Starts on: **28 September 2026**

About this course

Study Aerospace Engineering and by the end of your time at Liverpool, you will be able to show that you can now design, build, test and fly an aircraft.

Introduction

As an aerospace engineering student, you will experience a wide variety of topics and modes of study, whether it be conducting research, analysing reports or designing and building an aircraft. You will have the opportunity to study a wide range of topics during your time at Liverpool such as aerodynamics, aerostructures, flight dynamics and control, propulsion systems, avionics, aerospace materials and aircraft design.

Aerospace engineers design, analyse, build, test and maintain vehicles, their sub-assemblies and components as well as their associated systems that fly. Flight is not limited to simply within the Earth's atmosphere, and can also be outside of it.

Conducting independent research as part of an individual project will provide you with the knowledge to develop innovative concepts in your preferred technical area of interest. All of our Aerospace Engineering degree programmes are accredited, or pending accreditation, by our professional bodies, the Royal Aeronautical Society and

the Institute of Mechanical Engineers and are a recognised qualification on the route to Chartered Engineer status.

What you'll learn

- Aircraft design and manufacturing
 - Flight testing
 - Systems engineering
 - How to conduct independent research
 - Aerodynamics
 - Flight dynamics and control
 - How to deal with complex problems that may require compromise to meet competing requirements
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Accreditation

All of our Aerospace Engineering degree programmes are accredited, or pending accreditation, by our professional bodies, the Royal Aeronautical Society and the Institute of Mechanical Engineers and are 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.

Royal Aeronautical Society

The Royal Aeronautical Society is licensed by the Engineering Council to accredit academic programmes that provide the exemplifying level of understanding, knowledge and skills to underpin professional competence to help graduates on their way to registration as Chartered Engineers (CEng) or as Incorporated Engineers (IEng).

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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

You will study the core engineering topics that provide a firm background and understanding of aerospace engineering.

In week 7 of the second semester students take a week long course in Creo, a computer-aided design software.

Modules

| Compulsory modules | Credits |
|---|---------|
| <u>INTRODUCTION TO AEROSPACE ENGINEERING (AERO110)</u> | 7.5 |
| <u>SOLIDS AND STRUCTURES 1 (ENGG110)</u> | 15 |
| <u>PROFESSIONAL ENGINEERING: A SKILLS TOOLKIT (ENGG111)</u> | 30 |
| <u>ENERGY SCIENCE (ENGG116)</u> | 15 |
| <u>ENGINEERING MATHEMATICS (ENGG198)</u> | 22.5 |
| <u>DIGITAL ENGINEERING (ENGG125)</u> | 15 |
| <u>INTRODUCTION TO ENGINEERING MATERIALS (MATS105)</u> | 15 |

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

Year two

You will continue to study the core engineering topics as well as taking part in a two-day flight test course in the national flying laboratory aircraft.

Students undertaking Aerospace Engineering programmes will be required to wear safety shoes or boots (both toe cap and midsole protection **must conform** to European safety legislation) for some activities, and these must be provided by the students themselves.

Modules

| Compulsory modules | Credits |
|---|---------|
| <u>AEROENGINES (AERO213)</u> | 15 |
| <u>AEROSPACE ENGINEERING DESIGN 2 (AERO220)</u> | 15 |
| <u>DYNAMIC SYSTEMS (MECH215)</u> | 15 |
| <u>EXPERIMENTAL METHODS (ENGG201)</u> | 7.5 |
| <u>PROJECT MANAGEMENT (MNGT202)</u> | 7.5 |
| <u>SOLIDS & STRUCTURES 2 (ENGG209)</u> | 15 |
| <u>ENGINEERING MATHEMATICS AND COMPUTING (ENGG295)</u> | 15 |
| <u>FLIGHT MECHANICS (AERO202)</u> | 15 |
| <u>ENGINEERING MATERIALS PROCESSING & SELECTION (MATS201)</u> | 15 |

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

Year three

During your third year you will undertake an individual project. This provides you with the opportunity to conduct independent research and/or develop innovative

concepts in your preferred technical area of interest.

Modules

| Compulsory modules | Credits |
|---|---------|
| <u>ADVANCED MODERN MANAGEMENT (MNGT352)</u> | 7.5 |
| <u>AEROSPACE ENGINEERING DESIGN 3 (AERO321)</u> | 15 |
| <u>AEROSTRUCTURES (AERO318)</u> | 15 |
| <u>FLIGHT DYNAMICS AND CONTROL (AERO317)</u> | 15 |
| <u>INDIVIDUAL PROJECT (ENGG341)</u> | 30 |
| <u>AERODYNAMICS (AERO316)</u> | 15 |
| <u>COMPUTATIONAL METHODS IN ENGINEERING (ENGG386)</u> | 15 |
| <u>SPACEFLIGHT (AERO319)</u> | 7.5 |

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.

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

As a graduate of aerospace engineering, you will be equipped with the skills to work in the development and maintenance of aircraft, satellites, and space vehicles.

Typical types of work our graduates have gone on include:

- Airline operators
- Armed forces,
- Government research agencies like the Ministry of Defence (MoD)

Recent employers of our graduates are from the following industries and companies:

- Engineering and Infrastructure: ABB Ltd, Bentley, Metronet Rail, Rolls Royce;
- Utilities: United Utilities;
- Defence and Military: BAE Systems, British Army, RAF (Royal Air Force), Royal Navy;
- Aviation: British Airways;
- Government organisations: National Nuclear Laboratory (Government-owned).

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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 in industry fee – £1,850

Year abroad fee – £1,385 (applies to year in China)

International fees

Full-time place, per year – £29,100

Year in industry fee – £1,850

Year abroad fee – £14,550 (applies to year in China)

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.

Stationery and equipment

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

[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 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](#).

If you don't meet the entry requirements, you may be able to complete a foundation year which would allow you to progress to this course.

Available foundation years:

- [Engineering Foundation \(4 year route including a Foundation Year at Carmel College\)](#) BEng (Hons)

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 3 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 grades AA at A level to include Mathematics and a second science.

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

Pass Access to HE Diploma in a relevant subject 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 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 [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.

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