UNIVERSITY OF LIVERPOOL

MEng

Product Design Engineering with a Year in Industry

UCAS code HW27

Entry requirements	Study mode	Duration
A level: ABB	Full-time	5 years

Apply by: **14 January 2026**
Starts on: **28 September 2026**

About this course

This programme brings together the traditional discipline of design engineering and new product development with real-world experience. The result is a truly modern engineering degree that provides you with a solid technical grounding in engineering that prepares you for a successful career in industry.

Introduction

You'll study core engineering subjects such as solid mechanics, fluid mechanics, thermodynamics, materials and electronics and computer programming. Alongside, you'll learn product design techniques such as design communication, human factors, product development and project management. These foundations will give you an understanding of the science that underpins product design engineering.

In years three and four, you will move on to advanced engineering science, working on complex design engineering projects that reflect real-life in industry. Unique to this programme is a 300-hour individual product design engineering project on a topic of your choice, demonstrating design and engineering knowledge as well as practical design skills. you will also take part in a two-year Capstone project, which is designed to transform students from novice design engineers into professionals.

What you'll learn

- Design engineering and new product development
- Work on complex design engineering projects that reflect real-life in industry
- 300-hour individual product design engineering project on a topic of your choice
- Two-year Capstone project in years three and four
- Real-world experience working in the industry

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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

In year one you will study the core engineering subjects that provide fundamental knowledge of engineering science alongside product design techniques that underpins the practice of product design engineering.

Modules

Compulsory modules	Credits
SOLIDS AND STRUCTURES 1 (ENGG110)	15
ENGINEERING MATHEMATICS (MATH198)	22.5
INTRODUCTION TO STRUCTURAL MATERIALS (ENGG108)	7.5
ELECTRICAL CIRCUITS FOR ENGINEERS (ELEC121)	7.5
ELECTROMECHANICAL SYSTEMS (ENGG121)	7.5
INTRODUCTION TO PROGRAMMING (ENGG185)	7.5
DESIGN COMMUNICATION (ENGG115)	7.5
ENERGY SCIENCE (ENGG116)	15
PROFESSIONAL ENGINEERING: A SKILLS TOOLKIT (ENGG111)	30

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

Year two

In year two you will continue to study core engineering subjects solidifying the fundamental knowledge of engineering science in these subjects.

Modules

Compulsory modules	Credits
PRODUCT DEVELOPMENT 2 (ENGG220)	15
HUMAN FACTORS IN PRODUCT DESIGN: THEORY (ENGG222)	7.5
HUMAN FACTORS IN PRODUCT DESIGN: PRACTICE (ENGG224)	7.5
ENGINEERING MATHEMATICS II (MATH299)	7.5
MANAGING PRODUCT DEVELOPMENT (MNGT205)	7.5
ENGINEERING DESIGN (MECH212)	15
THERMODYNAMICS (MECH217)	15
SOLIDS & STRUCTURES 2 (ENGG209)	15
PRODUCT FORM AND MATERIALS (ENGG226)	7.5
MATERIALS PROCESSING AND SELECTION I (MATS214)	7.5
MATERIALS PROCESSING AND SELECTION II (MATS210)	7.5
PROJECT MANAGEMENT (MNGT202)	7.5
SCHOOL OF ENGINEERING YEAR IN INDUSTRY (ENGG299)	120

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

Year in industry

You will spend a year of your degree on a work placement, approved by the School of Engineering, normally in an engineering or design-relevant industry or role. The Product Design Engineering with a Year in Industry MEng (Hons) programme is available to all students*. While the School of Engineering and the University will provide the necessary support and guidance, it is the responsibility of the student to secure an industrial placement. Applicants should note that industrial placements are highly sought after and competition to be accepted into one can be significant. They therefore cannot be guaranteed. Students who fail to secure a suitable placement offer will transfer back to the standard version of the programme without a year in industry.

*Overseas students are applicable, 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 your final year, you move on to study advanced engineering science and work on complex design engineering projects that reflect real-life in industry.

Modules

Compulsory modules	Credits
INDIVIDUAL DESIGN PROJECT (INDD341)	30

Compulsory modules	Credits
MECHANICAL ENGINEERING CAPSTONE 1 (MECH327)	15
PRODUCT DEVELOPMENT 3 (ENGG320)	15
ADVANCED MODERN MANAGEMENT (MNGT352)	7.5
MATERIALS DESIGN (MATS303)	7.5
HEAT TRANSFER (MECH301)	15
MECHATRONICS (MECH316)	7.5
MANUFACTURING SYSTEMS (MNFG321)	15
MANAGEMENT OF DESIGN (MNGT313)	7.5

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

Year five

Modules

Compulsory modules	Credits
MECHANICAL ENGINEERING CAPSTONE 2 (MECH431)	30
PRODUCT DEVELOPMENT 4 (ENGG420)	15
VIRTUAL REALITY (MNFG421)	15
FINITE ELEMENT ANALYSIS (MECH452)	7.5

Compulsory modules	Credits
ADDITIVE MANUFACTURING (MNFG610)	7.5
DESIGN FOR ENVIRONMENT, MANUFACTURE AND ASSEMBLY (MNFG413)	7.5
LASER MATERIALS PROCESSING (MECH605)	15
ENTERPRISE STUDIES (MNGT414)	7.5
INDUSTRIAL ROBOTICS AND AUTOMATED ASSEMBLY (MNFG409)	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.

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 research-led teaching ensures that we incorporate the latest advances in cutting-edge engineering research and our graduates have found employment in a wide range of international industries and organisations.

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 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.

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Entry requirements

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

A levels

ABB
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 **BBB** 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

Design Engineering
Design and Technology (Product Design)
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, Mechanical, Mechatronics and Engineering.

BTEC Level 3 National Extended Diploma

Not accepted without grade B in A Level Mathematics.

International Baccalaureate

Pass Access to HE Diploma in a relevant subject with 45 Level 3 credits with 33 at Distinction (including 15 credits in Mathematics) and 12 at Merit.

Irish Leaving Certificate

H1, H2, H2, H2, H3, H3, including H2 in Higher Mathematics 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 ABB including Mathematics and a second science.

Welsh Baccalaureate Advanced

Acceptable at grade B alongside AB in A Level 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

Considered if taking a relevant subject. 42 Level 3 credits at Distinction, including 15 Level 3 credits in Mathematics is required. GCSE English and Mathematics grade C/4 or above also required.

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 direct entry requirements. Although there is no direct Foundation Certificate route to this course, completing a Foundation Certificate, such as that offered by the University of Liverpool International College, can guarantee you a place on a number of similar courses which may interest you.

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

Your most recent IELTS score	Pre-sessional English course length	On campus or online
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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