MSc (Eng)

Product Design and Management

Study mode	**Duration**	Apply by: **11 September 2026**
Full-time	12 months	Starts on: **28 September 2026**

About this course

The aim of this MSc programme is to provide you with advanced training in all major aspects of product design from conceptual design, and product modelling to prototyping to a high level of competence. This programme will train you to develop reliable, high-quality products with true market appeal, within the budgets and tight timescales demanded by competitive businesses.

Introduction

You'll gain detailed expertise in product design's key concepts, tools and methodologies.

There's a strong practical element and you'll develop your skills through individual and group projects, using facilities that include:-

- CAD (CREO)
- Rapid prototyping
- Reverse engineering

As well as receiving excellent tuition from our world-renowned academics you'll be able to listen to visiting product designers and professors from the Royal Academy of Engineering talk about advanced concepts and case studies.

What you'll learn

You'll gain detailed expertise in product design's key concepts, tools and methodologies, including:-

- Innovative product development and design techniques
- 3D modelling
- Materials selection
- Industrial design
- Rapid prototyping
- Total quality management
- Marketing.

Accreditation

This programme is fully accredited by the Institution of Mechanical Engineers.

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.

Course content

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

Semester one

Your first semester will introduce you to additive manufacturing, 3D tool and techniques used by designers, processes used during the initial stages of new product development, and the relationships between materials properties and the influence of processing on them.

UK students are exempt from **Technical Writing for Engineers** and should instead take **Project Management**. EU/International students with strong English language skills can be exempt as well, subject to Programme Director's approval.

Modules

Compulsory modules	Credits
MATERIALS PROCESSING AND SELECTION (MATS520)	15
COMPUTER AIDED DESIGN (MNFG604)	7.5
EARLY STAGE NEW PRODUCT DEVELOPMENT (MNFG601)	15
TECHNICAL WRITING FOR ENGINEERS (ENGG596)	7.5
ADDITIVE MANUFACTURING (MNFG603)	15
GROUP ENGINEERING DESIGN (MECH401)	15

Optional modules	Credits
PROJECT MANAGEMENT (MNGT502)	7.5

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

Semester two

In your second semester, you will learn the principles of advanced manufacturing techniques using lasers, the tools and methods of Eco-design, energy generation and usage, and the concepts of Entrepreneurship, Intrapreneurship, Company Infrastructure and Investment Proposals.

You'll get a good understanding of a wide range of aspects of the design function in a manufacturing company, in particular a comprehensive understanding of the Design Process. You will even get hands-on with modelling software to learn what it takes to bring a new product off the drawing board, through virtual development, and into a modern pre-tooling 'pre-sales' promotional environment.

Modules

Compulsory modules	Credits
ADVANCED MANUFACTURING WITH LASERS (MECH607)	15
ENTERPRISE STUDIES (MNGT414)	7.5
MANAGEMENT OF DESIGN (MNGT413)	7.5
PRODUCT MODELLING & VIRTUAL REALITY (MNFG608)	15
GROUP ENGINEERING DESIGN (MECH401)	15

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

Final project

Over the summer you will have the opportunity to plan, carry out and control a research project at the forefront of your academic discipline, where you will work independently to answer a research question based on your specialism area.

You'll use your research, literature searching and specific skills you have learned during the previous semesters to highlight your abilities.

You'll present an outline to your supervisor, create an interim report, and finally a dissertation.

Modules

Compulsory modules	Credits
MSC(ENG) PROJECT (60 CREDITS) (ENGG660)	60

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

Teaching and assessment

How you'll learn

You'll learn across a variety of teaching methods, like lectures, seminars, and tutorials. You'll also get hands-on experience designing sketch models and using micromachining lasers to build your portfolio.

You'll either work on these assignments on your own or in a group project. After that, you'll present your findings to the other students and the module leader, which will lead to a group discussion. This is a formative exercise, so you may even get feedback from your peers on your presentation.

How you're assessed

Across your modules, you'll be assessed in a number of different ways, including exams, lab activity, case studies, business plans, and project journals.

Your final project work will be based on a topic of industrial or scientific relevance, and will be carried out in laboratories in the University or at an approved placement in industry. You'll examine this project in your dissertation and show evidence of in-depth understanding, mastery of research techniques, ability to analyse assembled data, and assessment of 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.

Careers and employability

We equip our students for rewarding careers and our graduates have found jobs in a wide range of industries and organisations, both in the UK and abroad.

This programme includes a strong practical element and incorporate the latest academic and industry research, enabling you to work effectively at the forefront of engineering.

We've consistently achieved the highest grades in research assessments and many of our research programmes are supported by industrial companies such:-

- Agusta Westland
- Airbus
- BAE Systems
- QinetiQ
- Unilever
- Jaguar
- Ford
- National and international bodies such as EPSRC and the European Commission.

Career support from day one to graduation and beyond

Career planning

From education to employment

Networking events

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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 - £14,000

International fees

Full-time place, per year - £34,000

Tuition fees are for the academic year 2026/27.

Tuition fees cover the cost of your teaching and assessment, operating facilities such as libraries, IT equipment, and access to academic and personal support.

- You can pay your tuition fees in instalments.
- All or part of your tuition fees can be funded by external sponsorship.
- International applicants who accept an offer of a place will need to pay a tuition fee deposit.

If you're a UK national, or have settled status in the UK, you may be eligible to apply for a Postgraduate Loan worth up to £12,167 to help with course fees and living costs. **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 could include buying a laptop, books, or stationery.

Find out more about the additional study costs that may apply to this course.

Entry requirements

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

Postgraduate entry requirements

We accept a 2:2 honours degree from a UK university, or an equivalent academic qualification from a similar non-UK institution. This should be in Engineering or Science with appropriate knowledge of core engineering science topics at bachelor degree level.

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 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.

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

6.5 overall, with no component below 6.0

TOEFL iBT

If you took a TOEFL test on or before 20 January 2026, you'll need 88 overall, with minimum scores of listening 19, writing 19, reading 19 and speaking 20. If you took a TOEFL test from 21 January 2026 onwards, when a new scoring system was introduced, you'll need 4.5 overall, with 4 or above in all components. TOEFL Home Edition not accepted.

Duolingo English Test

125 overall, with writing not less than 125, speaking and reading not less than 115, and listening not below 110. For academic year 2025/26 only, we will also accept the production, literacy, comprehension and conversation score set: 120 overall, with no component below 105.

Pearson PTE Academic

61 overall, with no component below 59

LanguageCert Academic

70 overall, with no skill below 65

PSI Skills for English

B2 Pass with Merit in all bands

INDIA Standard XII

National Curriculum (CBSE/ISC) - 75% and above in English. Accepted State Boards - 80% and above in English.

WAEC

C6 or above

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
6.0 overall, with writing at 6.0 and no component below 5.5	6 weeks	On campus or online
5.5 overall, with writing at 5.5 and no component below 5.0	10 weeks	On campus or online
5.5 overall, with no more than one component at 5.0	12 weeks	Online
5.5 overall, with no component below 5.0	20 weeks	On campus
5.0 overall, with no more than one component at 4.5	30 weeks	On campus
4.5 overall, with no more than one component at 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 6.5 overall, with no component below 6.0, for further details.