



MSc (Eng)

# Mechanical Engineering with Management

**Study mode**

Full-time

**Duration**

12 months

Apply by: **29 August 2025**

Starts on: **22 September 2025**

## About this course

The Mechanical Engineering with Management MSc aims to develop your academic knowledge, skills and understanding of mechanical engineering and management topics to an advanced level. It will enable graduates to meet the needs of industry and to progress into senior positions with engineering management or related industrial sectors.

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## Introduction

A postgraduate degree in Mechanical Engineering with Management is the basis for a career in a profession that offers an extremely wide choice of employment opportunities worldwide. Students engage in a number of activities that not only develop fundamental knowledge but also provide the tools to critically evaluate and apply knowledge to developing solutions for real world engineering challenges.

Mechanical engineering deals with the design, development, installation, operation and maintenance of anything that has moving parts. Mechanical engineers are needed in almost every industry from transport and Energy to Healthcare and sport. Mechanical Engineers have highly valued skills and are in demand worldwide. They have problem solving skills using reasoning, resourcefulness and innovative approaches whilst capable of careful attention to detail and understand how to work in multidisciplinary teams.

**BEng Aerospace, Mechanical or Civil Engineering Graduates from University of Liverpool are not eligible for this programme.**

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## **What you'll learn**

- An understanding of modern management tools, practical project management and the skills needed to thrive at entrepreneurial activity
  - Concepts of Engineering Fluid Mechanics, and in particular: the role of viscosity in fluid mechanics, including the no-slip condition and the concept of vorticity
  - Gain an understanding of nuclear engineering
  - Understand advanced manufacturing techniques using lasers
  - Alternative and conventional energy generation methods
  - Concepts required to maintain structural integrity.
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## **Accreditation**

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

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### **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.

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# Course content

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

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## Semester one

This course is available to start in September or January. If you choose to start in January, you'll undertake the Semester two modules first, from January to May. This will be followed by your research project over the summer and then your Semester one modules from September to January. On successful completion of the course, following a January start, you can expect to graduate at our summer graduation ceremonies.

Please note, 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.

If you're a University of Liverpool Engineering graduate or have a relevant background, you may be able to replace Engineering Fluid Mechanics with Advanced Fluid Mechanics.

## Modules

Compulsory modules	Credits
<u><a href="#">ENGINEERING FLUID MECHANICS (MECH627)</a></u>	15
<u><a href="#">NUCLEAR TECHNOLOGIES (MECH434)</a></u>	7.5
<u><a href="#">PROJECT MANAGEMENT (MNGT502)</a></u>	7.5
<u><a href="#">ADVANCED MODERN MANAGEMENT (MNGT352)</a></u>	7.5
<u><a href="#">TECHNICAL WRITING FOR ENGINEERS (ENGG596)</a></u>	7.5

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Optional modules	Credits
<u>COMPUTER AIDED DESIGN (MNFG604)</u>	7.5
<u>FINITE ELEMENT ANALYSIS (MECH452)</u>	7.5
<u>LASER MATERIALS PROCESSING (MECH605)</u>	15
<u>ADDITIVE MANUFACTURING (MNFG610)</u>	7.5
<u>ADVANCED ENGINEERING MATERIALS (MATS301)</u>	7.5
<u>ADVANCED FLUID MECHANICS AND AERODYNAMICS (AERO406)</u>	15

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

## Semester two

This course is available to start in September or January. If you choose to start in January, you'll undertake the Semester two modules first, from January to May. This will be followed by your research project over the summer and then your Semester one modules from September to January. On successful completion of the course, following a January start, you can expect to graduate at our summer graduation ceremonies.

## Modules

Compulsory modules	Credits
<u>ADVANCED MANUFACTURING WITH LASERS (MECH607)</u>	15
<u>ENERGY AND THE ENVIRONMENT (MECH433)</u>	15
<u>ENTERPRISE STUDIES (MNGT414)</u>	7.5

<b>Compulsory modules</b>	<b>Credits</b>
<u>STRUCTURAL INTEGRITY (ENGG409)</u>	15

<b>Optional modules</b>	<b>Credits</b>
<u>DESIGN FOR ENVIRONMENT, MANUFACTURE AND ASSEMBLY (MNFG413)</u>	7.5
<u>SMART MATERIALS (MATS515)</u>	7.5

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

## Final project

This course is available to start in September or January. If you choose to start in January, you'll undertake the Semester two modules first, from January to May. This will be followed by your research project over the summer and then your Semester one modules from September to January. On successful completion of the course, following a January start, you can expect to graduate at our summer graduation ceremonies.

## Modules

<b>Compulsory modules</b>	<b>Credits</b>
<u>MSC(ENG) PROJECT (60 CREDITS) (ENGG660)</u>	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 – some online and some in person. You'll also access asynchronous online content on a weekly basis with personal tutorials and take part in group work projects, based on engineering grand challenges faced by global society today.

There's opportunity to get hands-on too with active learning lab sessions, laser micromachining and lab work using special design software such as Finite Element.

## How you're assessed

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

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.

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# 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.

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

Career Destinations are wide and varied. Some employers include:

- Agusta Westland
- NHS
- BAE Systems
- Ford
- Jaguar
- Unilever
- Armed Forces
- QinetiQ
- National and International bodies such as EPSRC and the European Commission.

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## Career support from day one to graduation and beyond

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### Career planning

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### From education to employment

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### 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 - £13,300

### International fees

Full-time place, per year - £29,900

Fees stated are for the 2025-26 academic year.

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.](#)

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## 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.

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# Entry requirements

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

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## 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.

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## 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.

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# 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.

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## IELTS

6.5 overall, with no component below 6.0

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## **TOEFL iBT**

88 overall, with minimum scores of listening 19, writing 19, reading 19 and speaking 20. TOEFL Home Edition not accepted.

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## **Duolingo English Test**

125 overall, with writing not less than 125, speaking and reading not less than 115, and listening not below 110

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## **Pearson PTE Academic**

61 overall, with no component below 59

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## **LanguageCert Academic**

70 overall, with no skill below 65

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## **PSI Skills for English**

B2 Pass with Merit in all bands

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## **INDIA Standard XII**

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

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## **WAEC**

C6 or above

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## **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.

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## 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.

<b>Your most recent IELTS score</b>	<b>Pre-sessional English course length</b>	<b>On campus or online</b>
6.0 overall, with no component below 6.0	6 weeks	On campus
6.0 overall, with no component below 5.5	10 weeks	On campus and online options available
6.0 overall, with no more than one component below 5.5, and no component below 5.0	12 weeks	On campus and online options available
5.5 overall, with no more than one component below 5.5, and no component below 5.0	20 weeks	On campus
5.0 overall, with no more than one component below 5.0, and no component below 4.5	30 weeks	On campus
4.5 overall, with no more than one component below 4.5, and no component below 4.0	40 weeks	On campus

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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.

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