

# MSc (Eng) Engineering Management

Study modeDurationApply by: 29 August 2025Full-time12 monthsStarts on: 22 September 2025

# About this course

Engineers are at the forefront of human progression, driving innovation and shaping our world. As our reliance on engineers to address major global problems grows, so does our need for outstanding people to lead the way. This master's degree (MSc) combines core engineering principles with management strategies, equipping you with skills in leadership, innovation, and strategic decision-making so you can guide organisations through complex engineering and business challenges.

# Introduction

Our Engineering Management MSc bridges the gap between engineering and management, creating technically proficient, impactful leaders who can achieve business objectives and help others succeed in the process.

Through hands-on projects and case studies, you will develop critical skills in problem solving, communication, optimising systems and leading cross-functional teams while balancing innovation, cost and quality. The programme also emphasises strategic thinking and adaptability helping you develop the ability to make informed, data-driven decisions and to adapt to modern technologies, particularly those around digital/data science, carbon reduction and climate change resilience.

You will also gain a deeper understanding of the ethical considerations of engineering management, exploring issues around sustainability, inclusivity, confidentiality and integrity. We want to produce leaders committed to making the world of engineering a better place for all.

This is an exciting time to join this brand-new programme as the need for professional engineering managers is growing rapidly. You will graduate with a wide range of career opportunities and will be equipped with the skills, knowledge and experience to make real-world, positive impact.

### Who is this course for?

This programme is ideal for engineers and scientists wanting to advance into managerial roles and drive innovation and efficiency in organisations.

Our MSc is for graduates with a good first degree in an engineering or related science subject including, but not limited to, Civil, Architectural and Environmental Engineering, Mechanical Engineering, Product Design Engineering, Aerospace Engineering, Automation Engineering, Chemical Engineering, Electronics and Electrical Engineering, Computer Science, Mathematics, Physics and Chemistry.

We also welcome applications from engineering professionals with extensive and relevant professional engineering experience, which will be assessed at interview.

# What you'll learn

- Transferable skills in problem solving, critical analysis, teamwork and communication
- Modern management tools and insights, including industrial psychology and organisational behaviour
- Understanding fundamental techniques in engineering project, risk and cost management
- Methods and skills for making resilient and sustainable engineering decisions
- Entrepreneurial concepts, activities and challenges.

# Accreditation

As a new programme, our Engineering Management MSc is seeking and pending accreditation by the Institution of Engineering and Technology (IET). The programme

aims to be fully accredited (subject to IET approval) as soon as the first cohort of MSc students has graduated.

# **Course content**

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

### Semester one

In semester one you will learn the important core skills of planning, project and technical management of engineering operations and processes. The modules will build on your existing engineering knowledge, and you will develop exciting new skills in risk management, digital data science, sustainable engineering and climate change resilience.

### **Modules**

Compulsory modules	Credits
UNCERTAINTY, RELIABILITY AND RISK 1 (ENGG304)	7.5
PROJECT MANAGEMENT (MNGT502)	7.5
PROFESSIONAL ENGINEERING MANAGEMENT AND LEADERSHIP (CIVE476)	15
RESILIENT AND SUSTAINABLE ENGINEERING MANAGEMENT (CIVE477)	15
SUSTAINABLE DESIGN AND INFRASTRUCTURE MANAGEMENT (CIVE478)	7.5
Optional modules	Credits
ADDITIVE MANUFACTURING (MNFG603)	15
ADVANCED MODERN MANAGEMENT (MNGT352)	7.5
RISK AND UNCERTAINTY: PROBABILITY THEORY (ENGG404)	7.5

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

### Semester two

Semester two extends the core skills developed in semester one so that you develop a deeper, critical understanding of engineering management practices, digital engineering design, people leadership and team management. You will acquire the high-level skills needed to be an effective, professional engineering manager in the diverse, modern society we live in.

### **Modules**

Compulsory modules	Credits
ENTERPRISE SKILLS AND PROJECT ECONOMICS (ENGG354)	15
DATA, PROCESSES AND DIGITAL DESIGN IN ENGINEERING MANAGEMENT (CIVE472)	15
PATHFINDER PROJECT (CIVE474)	15
PROFESSIONAL ENGINEERING MANAGEMENT AND LEADERSHIP - ADVANCED SKILLS (CIVE475)	15

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

### **Final Project**

In the summer, you will undertake the Final Project module in which you will work on an industry-based topic in a team setting that addresses an exciting, real-world engineering problem. Working in partnership with industry professionals and leading academic researchers, you will design, develop and manage the project using techniques and approaches that are highly sought after in industry.

### Modules

Compulsory modules	Credits
FINAL PROJECT - ENGINEERING MANAGEMENT (CIVE473)	60

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

### **Teaching and assessment**

# How you'll learn

You'll be taught through a combination of traditional lectures and practical classes, benefitting from research-led teaching and active learning methods. There will be a mixture of lectures, seminars, tutorials, laboratory-based practical work, demonstrations, problem-solving exercises, group projects and independent study.

# How you're assessed

You'll be assessed through a combination of written exams, class tests, presentations and coursework. The examinations take place at the end of each semester and typically take the form of an in-person written assignment, usually to be completed in a couple of hours. Coursework-based assignments include essays, reports, oral and graphical presentations, mini-project work, key skills exercises and a dissertation. Your dissertation is assessed through a combination of written reports and a presentation of your achievements.

# 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**

Engineering Management graduates have excellent employment prospects and the demand for qualified professionals is growing each year. There has never been a more important time for organisations to have exceptional engineering leaders.

The University of Liverpool is one of the most targeted universities by top employers, according to The Graduate Market 2024, High-Fliers Research. This means our graduates are in high demand and sought after by top employers worldwide.

The career opportunities in Engineering Management are vast. Qualifying with an Engineering Management MSc degree from Liverpool will equip you with the knowledge, skills and confidence to explore opportunities in many dynamic industries. Graduates find work in roles such as:

- Engineering Manager
- Operational Manager
- Project Manager
- Engineering Director
- Technical Consultant
- Business Analyst
- Systems Analyst
- Business Development Manager
- Quality Engineer and many more.

Our graduates are also highly sought after in many other sectors and industries for their analytical, communications, management, business and IT skills.

In the United Kingdom, salaries for jobs in engineering management, range between £44,000 to £90,000. In China, the estimated total pay for an Engineering Manager is CN¥580,000 per year plus potential additional pay of cash bonus, commission, tips, and profit sharing. Engineering management jobs in India's burgeoning tech industry, have salaries ranging between ₹2,000,000 to ₹5,000,000. (Source Glassdoor)

In the United States, the salaries for engineering management roles range from \$113,000 to \$179,000 with the average around \$142,000 (plus potential bonuses, stock grants etc).

(Source <u>LeadDev</u>)

# Career support from day one to graduation and beyond

**Career planning** 

From education to employment

**Networking events** 

# **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 <u>pay a</u> <u>tuition fee deposit</u>.

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 degree should be in an engineering or science related subject, including (but not limited to): Civil Engineering, Architectural and Environmental Engineering, Chemical Engineering, Mechanical Engineering, Product Design Engineering, Aerospace Engineering, Automation Engineering, Electronics and Electrical Engineering, Computer Science, Mathematics, Physics and Chemistry.

We will also consider applications from engineering professionals with extensive, relevant work experience, which will be assessed at interview.

In exceptional circumstances, we will consider students graduating from a UK university with a 2:2 degree in a related non-engineering/science degree with links to engineering or management. Including, but not limited to, Business Management, Geography and Environmental Sciences.

### 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 <u>University of Liverpool International College</u>, 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 <u>majority English speaking country</u>.

We accept a variety of <u>international language tests</u> and <u>country-</u> specific qualifications.

International applicants who do not meet the minimum required standard of English language can complete one of our <u>Pre-Sessional English courses</u> to achieve the required level.

#### IELTS

6.5 overall, with no component below 6.0

### **TOEFL iBT**

88 overall, with minimum scores of listening 19, writing 19, reading 19 and speaking 20. 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

### **Pearson PTE Academic**

61 overall, with no component below 59

### LanguageCert Academic

70 overall, with no skill below 65

#### **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 <u>the equivalent score in selected other English language tests</u>, 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 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

Your most recent IELTS score	Pre-sessional English course length	On campus or online
4.5 overall, with no more than one component below 4.5, and 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 <u>Pre-sessional English entry requirements</u> for IELTS 6.5 overall, with no component below 6.0, for further details.

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