

ME Manufacturing Engineering (double degree)

Two Years Full Time (September start)

Introduction

This masters merges manufacturing technical and technological aspects with innovation and entrepreneurship teaching, in the context of the global societal challenges, such as circular economy, industrial innovation and sustainability. It is a double degree programme, coordinated by EIT Manufacturing Master School, between UCD and other universities around Europe i.e. Aalto University, Finland, Ecole Centrale de Nantes (ECN), France, Politecnico di Milano (POLIMI), Italy, University of Applied Sciences and Arts of Italian Switzerland (SUPSI), Switzerland, Institut

Polytechnique de Grenoble (Grenoble INP), France and Vienna University of Technology (TU Wien), Austria. The first year is spent at UCD (entry university) and the second year is spent at another (exit) university as listed above.

Students choose one of four minors offered as part of the programme i.e. Additive Manufacture for Full Flexibility, Zero-Defect Manufacturing for a Circular Economy, Digital manufacturing for innovative ecosystems, or Data Science & AI for Competitive Manufacturing.

Course Highlight

On completion students receive two degrees directly from entry and exit universities and the EIT label certificate from EIT Manufacturing, as international recognition of their high-quality education curriculum. EIT Manufacturing (EITM) Master School is part of EIT Manufacturing, a European association of leading Universities, industries and research centres linked to the manufacturing sector.

Course Content and Structure

- **120 credit** Taught Master's **90 credits:** Taught modules taken between 2 partner universities
- **30 credits:** Thesis project undertaken at exit university
- Modules offered will depend on major stream chosen and the Entry-Exit universities combination.
- The teaching methods and learning environment are highly interactive and varied and include lectures, workshops, tutorials, labs, and practical exercises.

Please see UCD Graduate Studies for a full breakdown of each minor stream.

Modules offered by UCD include:

- Manufacturing Engineering
- Computational Continuum Mechanics
- Advanced Metals & Materials Processing
- Medical Device Design
- Mechanical Engineering Design
- Technical Communication
- Advanced Polymer Engineering
- Materials Science and Engineering
- Engineering Decision Support Systems
- Professional Engineering (Finance)
- Professional Engineering (Management)
- Engineering Project Management
- Supply Chain Design & Analysis
- Operations Management
- Quantitative Methods for Engineers

Why study at UCD?



Graduate education

12,800 graduate students; 17% graduate research students; structured PhDs



Global profile

UCD is ranked in the top 1% of higher education institutions worldwide



Global community

Over 11,000 international students from more than 152 countries



Global careers

Dedicated careers support; 2-year stayback visa to work in Ireland



Co-funded by the European Union





Career Opportunities

There is strong demand throughout Europe for graduates of manufacturing degree programmes to be better equipped for the marketplace than their predecessors have been. There is strong need for graduates to have direct experience of industry, to have a practical awareness of important developments within the sectors of Europe's manufacturing industry (e.g., increased digitalisation, demands of Industry 4.0, growth of additive manufacturing and robotics, etc.), to have a greater awareness of innovation & entrepreneurship, combined with an international perspective that is the direct result of personal experiences. The ME Manufacturing Engineering will prepare you for high level technical positions, Innovation roles and business profiles, including the capability to create your own start-up. It will also allow you to create a professional network at national and international level through the several initiatives and the EIT alumni communities.

Graduate Profile

Muhammad Suleman
MSD Ireland



I chose the programme during the COVID-19 pandemic, shortly after completing my bachelor's degree, drawn by its compelling curriculum and structure. The Zero Defects (ZD) track interested me due to its focus on processes and efficiency. The scholarship offer and the unique dual-degree aspect, earning two master's degrees in two years, were significant incentives. The hands-on learning approach at Aalto University and University College Dublin, including a two-week field trip to Kenya and a year-long student-led project, suited my style perfectly. This programme helped me develop invaluable soft skills through numerous group projects. Now a process engineer in a pharmaceutical company, I analyse data and oversee projects, benefiting from the programme's comprehensive skill set. I highly recommend it for its extensive personal and professional development opportunities.

Applicant Profile

- Applicants must hold a bachelor's degree with a minimum of 180 ECTS credits or equivalent academic qualifications from an internationally recognized university with a minimum 2:1 degree GPA. Accepted Bachelor degrees include Mechanical Engineering, Electrical Engineering, Computer Engineering, Computer Science, Information Technology or Industrial Engineering, depending on the minor that the applicant wants to pursue.
- Applicants whose first language is not English must also demonstrate English language proficiency of IELTS 6.5 (no band less than 6.0 in each element), or equivalent.

International Fees and Scholarships

All students for this programme are eligible for an automatic scholarship. The EIT Manufacturing Master School will rank applicants and offer scholarships at the time of the student's admission. Scholarships may include: mobility grant, subsistence costs support and fee waivers. See EIT Manufacturing website <https://eitmanufacturing.eu/> for more information

Related Master's Programmes of Interest

- ME Mechanical Engineering
- ME Materials Science & Engineering
- MEngSc Materials Science & Engineering
- ME Engineering with Business
- MEngSc Engineering Management

CONTACT US

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APPLY NOW

Students apply through a central application system, managed by EIT Manufacturing
<https://apply.eitmanufacturing.eu/>