# Programme Specification

## Engineering Management [Frenchay]

Version: 2025-26, v2.0, Validated

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# Section 1: Key Programme Details

## Part A: Programme Information

**Programme title:** Engineering Management [Frenchay]

**Highest award:** MSc Engineering Management

**Interim award:** PGCert Engineering Management

**Interim award:** PGDip Engineering Management

**Awarding institution:** UWE Bristol

**Teaching institutions:** UWE Bristol

**Study abroad:** No

**Year abroad:** No

**Sandwich year:** No

**Credit recognition:** No

**School responsible for the programme:** CATE School of Engineering, College of Arts, Technology and Environment

**Professional, statutory or regulatory bodies:** Not applicable

**Modes of delivery:** Full-time

**Entry requirements:** For the current entry requirements see the UWE public website.

**For implementation from:** 01 September 2025

**Programme code:** H19C42

# Section 2: Programme Overview, Aims and Learning Outcomes

## Part A: Programme Overview, Aims and Learning Outcomes

**Overview:** This MSc Engineering Management programme is designed to develop and empower visionary, climate-conscious leaders who will drive innovation and sustainable technology in engineering practice and management within a globally interconnected world.

This postgraduate programme is open to graduates from engineering, sciences, and business management. It is designed to create pathways to lucrative employment opportunities in professional engineering environments. By enhancing students' understanding of both engineering and business management and emphasizing the practical application of this knowledge in real-world contexts, the programme is perfectly aligned with the needs of organisations in the technology and engineering sectors.

**Features of the programme:**

**Educational Aims:** The MSc Engineering Management programme aims to:

Provide opportunities for graduates from diverse backgrounds to develop the skills and knowledge needed to meet the industry’s demand for future managers with a blend of technology and business expertise.

Create a multi-disciplinary learning environment that ensures the development of managerial capabilities and vision to tackle future challenges in the engineering and technology sector.

Support graduates in gaining a comprehensive understanding of global challenges, enabling them to implement change initiatives and strategies that enhance organisational competitiveness.

Enhance critical thinking, problem-solving, and continuous learning skills that are transferable across various contexts, enhancing graduates’ employability and accelerating their career progression.

Provide appropriate facilities and resources to ensure a high-quality learning

experience for students.

Prepare graduates for further academic pursuits, including doctoral degrees in engineering management research.

**Programme Learning Outcomes:**

On successful completion of this programme graduates will achieve the following learning outcomes.

**Programme Learning Outcomes**

PO1. Critically evaluate the role of innovation, technology, leadership, and systems thinking in adapting to technological and engineering changes, while managing risks and resources effectively.

PO2. Apply engineering and management concepts, theories, and techniques to address real-world multi-functional technology and engineering challenges, balancing conflict and operational objectives, manage time and tasks efficiently with a focus on organisational priorities and achieving results.

PO3. Demonstrate strategic management thinking, financial management, and critically assess business needs for sustainable competitiveness in the technology and engineering sectors, while influencing others through effective communication and leadership skills.

PO4. Integrate key management theories, models, and frameworks relevant to technology and engineering management, and provide purpose and direction to teams and projects.

PO5. Develop practical skills in managing technology and engineering capabilities and cultivate leadership qualities to address strategic and operational issues and demonstrate self-management in line with developing people through promoting a culture of continuous learning.

PO6. Analyse recent developments in the technology and engineering industries and their impact on strategic operations and management.

PO7. Critically evaluate information to make effective decisions based on outcome assessments.

PO8. Apply technology and management skills to complex problem situations, providing effective multidisciplinary solutions, and demonstrate effective teamwork skills and professional values to achieve mutual goals.

PO9. Communicate effectively, ethically, and professionally, build relationships and networks, and stay up to date with knowledge advances and aware of the constantly changing world.

**Assessment strategy:** The MSc Engineering Management programme employs a variety of assessment methods that are carefully aligned with the learning outcomes of the programme. The chosen assessment approaches ensure comprehensive evaluation of students' knowledge, skills, and competencies. These include:

1. Coursework: Essays, reports, and case studies that allow students to demonstrate their understanding of theoretical concepts and their ability to apply them to real-world scenarios.
2. Project Work: Group and individual projects that encourage collaboration, problem-solving, and practical application of engineering management techniques.
3. Presentations: Oral presentations to develop communication skills and the ability to articulate complex ideas clearly and confidently.
4. Reflective Journals: Personal reflections that promote self-assessment and continuous improvement.

Students engage with both disciplinary and practice-oriented approaches to assessment:
- Disciplinary Approaches: These include traditional methods such as coursework that assess students' theoretical understanding and analytical skills.
- Practice-oriented Approaches: Project work and case studies provide hands-on experience, enabling students to tackle real-world engineering management challenges. These methods are chosen to bridge the gap between theory and practice, ensuring students are well-prepared for professional roles.

The effectiveness of the chosen assessment approaches is ensured through several mechanisms:
- Continuous Feedback: Regular feedback from programme team helps students understand their strengths and areas for improvement, promoting continuous learning and development.
- Peer Review: Incorporating peer review in project work and presentations

encourages collaborative learning and critical evaluation.
- Alignment with Industry Standards: Assessments are designed in line with industry trends to ensure they reflect current practices and expectations in engineering management.

By employing a diverse range of assessment methods, the MSc Engineering Management programme ensures that students are evaluated comprehensively, capturing their academic achievements and practical skills. This strategy aligns with the Enhancement Framework's principles of programmatic design, enquiry-based learning, and inclusive practice, ultimately preparing graduates for successful careers in engineering management.

**Student support:** - Offer optional modules to create individualized learning plans tailored to students' backgrounds and career goals.

- Promote collaboration across fields through interdisciplinary research projects to enhance problem-solving skills.

- Host and encourage students to participate in events on global challenges and industry trends to broaden students' understanding and prepare them for change initiatives.

- Include activities that develop critical thinking and problem-solving skills to boost employability.

- Provide high-quality facilities and resources like labs, libraries, and online databases.

- Partner with career support services for resume workshops, interview prep, and networking events to accelerate career progression.

- Offer research training and projects aligned with students' interests to prepare them for further academic pursuits and enhance employability.

- Incorporate effective communication, leadership, and ethical practices into the curriculum.

- Integrate group work activities to build teamwork, collaboration, and conflict resolution skills, including peer assessments.

- Record lectures and module inductions for flexible access and reinforced learning.

## Part B: Programme Structure

### Year 1

Full time students must take 180 credits in Year 1.

Interim awards (Full Time):
Postgraduate Certificate of Engineering Management - 60 credits which must include:
Project Management in Practice UFMEB8-30-M
Strategic Analysis of Technical Operations UFMF78-15-M
Finance for non- Financial Managers UFMFTQ-15-M

Postgraduate Diploma of Higher Education Engineering Management 120 credits of which must include:
Project Management in Practice UFMEB8-30-M
Strategic Analysis of Technical Operations UFMF78-15-M
Finance for non- Financial Managers UFMFTQ-15-M

### Year 1 Compulsory Modules (Full Time)

Full time students must take 165 credits from the modules in Compulsory Modules (Full Time).

| Module Code | Module Title | Credit |
|---|---|---|
| UFMEB8-30-M | Project Management in Practice 2025-26 | 30 |
| UFMEB7-15-M | Process Design and Simulation 2025-26 | 15 |
| UFMFTF-60-M | Dissertation (Masters) 2025-26 | 60 |

| | | |
|---|---|---|
| UFMFTQ-15-M | Finance for Non-Financial Managers 2025-26 | 15 |
| UFMF78-15-M | Strategic Analysis of Technical Operations 2025-26 | 15 |
| UFMFBM-30-M | Sustainable Engineering for Global Challenges 2025-26 | 30 |

**Year 1 Optional Modules (Full Time)**
Full time students must take 15 credits from the modules in Optional Modules (Full Time).

| Module Code | Module Title | Credit |
|---|---|---|
| UFMFRQ-15-M | Logistics and Supply Chain Management 2025-26 | 15 |
| UFMEE8-15-M | Principles of Lean Engineering 2025-26 | 15 |

**Part C: Higher Education Achievement Record (HEAR) Synopsis**

The Programme is designed for postgraduate students who can effectively apply their management knowledge and skills within the fields of engineering and technology sectors. Graduates will emerge as highly analytical and strategic thinkers, equipped to lead and address global challenges. Through participation in individual and group projects, they will demonstrate their ability to work both independently and collaboratively.

Additionally, students will gain insights into real-world business practices through engagement with academic experts, further enhanced by seminars from experienced external speakers. These professional graduates will understand their strengths, navigate diverse business environments and cultures, and manage complex international relationships effectively.

**Part D: External Reference Points and Benchmarks**

QAA UK Quality Code for HE 2024

Framework for higher education qualifications (FHEQ)

QAA Characteristics Statement for Master's degree (2020)

QAA Subject Benchmark statement for Engineering (2023)

QAA Subject Benchmark statement for Business and Management (2023)

UWE Strategy 2030

University policies

Staff research projects

PSRB requirements

Occupational standards

**Part E: Regulations**

Approved to University Regulations and Procedures.