Programme Specification (Postgraduate) **FOR ENTRY YEAR: 2023/24**

Date created: n/a **Last amended** 05/07/2023 **Version no.** 2

1. Programme title(s) and code(s)

MEM – Master of Engineering Management

MEM – Master of Engineering Management with Industry

Postgraduate Certificate in Engineering Management (exit award only) *

Postgraduate Diploma in Engineering Management (exit award only) *

Postgraduate Diploma in Engineering Management, with Industry (exit award only) *

Postgraduate Certificate in Management (exit award only) *

Notes

* An award marked with an asterisk is only available as an exit award and is not available for students to register onto.

HECOS Code

HECOS Code	%
100184	100

2. Awarding body or institution

University of Leicester

3. a) Mode of study

Full-time

b) Type of study

Campus-based

4. Registration periods

September intake

The normal period of registration for the Masters of Engineering Management is 12 Months

The maximum period of registration for the Masters of Engineering Management is 24 Months

The normal period of registration for the Masters of Engineering Management with Industry is 24 Months

The maximum period of registration for the Masters of Engineering Management with Industry is 33 Months

January intake

The normal period of registration for the Masters of Engineering Management is 16 months

The maximum period of registration the Masters of Engineering Management is 28 months

The normal period of registration for the Masters of Engineering Management with Industry is 28 months

The maximum period of registration for the Masters of Engineering Management with Industry is 40 months

5. Typical entry requirements

Academic:
Candidates should normally have at least a good second-class honours degree in a relevant subject from a British university; or a qualification recognized by the University as equivalent.
Candidates who have acquired experience through work or other means that enables staff responsible for admissions to be confident of the candidate's ability to succeed in the programme will be considered.
English language
Candidates whose first language is not English will be required to provide evidence of appropriate language skills. A score of 6.5 in IELTS or an equivalent is required, with no less than a score of 6.0 in any element but if candidates have been instructed in their u/g courses in English in certain countries for a period of at least two years, this may be deemed adequate. Courses at the University's English Teaching Unit are offered to candidates who fail this requirement. The course must be completed before the MEM can begin.

6. Accreditation of Prior Learning

None

7. Programme aims

This is an advanced career entry programme focussed on industrial careers in the engineering / technology sector. The focus of this programme is Engineering Management. A more practical and engineering-focussed alternative to an MBA for aspiring engineering managers, the Masters in Engineering Management (MEM) is designed to train and develop future leaders of technological companies.
Incorporating distinctive modules such as Lean manufacturing, product and service design, Cost Management, Value Driven Design and Engineering Business Management, the MEM covers usable pragmatic management techniques to complement the technical skills that are necessary for future leaders in the Engineering industry. The technical element of this programme will be dominated by systems engineering, concurrent engineering methodologies and quantitative engineering management techniques that will allow students to design engineering products that are optimum business solutions. The combination of advanced business optimisation and management methodologies will equip students with the knowledge and skills required to secure leadership roles in global engineering industries.

For the aims, learning outcomes and special features of the Year in Industry, please see
https://le.ac.uk/study/postgraduates/courses/industry

8. Reference points used to inform the programme specification

- QAA Benchmarking Statement
- Framework for Higher Education Qualifications (FHEQ)
- UK Quality Code for Higher Education
- University Learning Strategy
- University Assessment Strategy
- University of Leicester Periodic Developmental Review Report
- External Examiners' reports (annual)
- United Nations Education for Sustainable Development Goals
- Student Destinations Data
- Engineering Accreditation Board (EAB) Master's Degree other than Integrated Masters, and EngD Learning Outcomes (AHEP 3rd Edition)
- UK-SPEC (UK Standard for Professional Engineering Competence)
- Engineering Council Compensation and Condonement requirements November 2018

9. Programme Outcomes

Unless otherwise stated, programme outcomes apply to all awards specified in 1. Programme title(s).

a) Discipline specific knowledge and competencies

i) Knowledge

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
A successful student will develop, and therefore be able to deploy a core knowledge of general and specialist Engineering management topics and techniques to problems encountered in engineering industries (PGCert/PGDip/MEM), and apply this knowledge to a major extended engineering management case study (MEM only)	Lectures, Specified reading, Exercises, Tutorials, Group discussion, private study, and assignment feedback (formative and summative). Major project work, including team meetings and supervision meetings.	Module examinations, coursework exercises, tutorial questions, individual reports/essays. Major project report and presentation.

ii) Concepts

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
A successful student will explain and critique the application of general and specialist engineering management techniques (such as project management methodologies, cost engineering and value driven design) to engineering systems and products (PGCert/PGDip/MEM). A successful MEM student will demonstrate the selection and application of appropriate techniques to a substantive engineering management problem.	Lectures, Specified reading, Exercises, Tutorials, Group discussion, private study, and assignment feedback (formative and summative). Major project work, including team meetings and supervision meetings.	Module examinations, coursework exercises, tutorial questions, individual reports/essays. Major project report and presentation.

iii) Techniques

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
A successful student will apply general and specialist engineering management techniques to undertake analysis of engineering systems and to critique the business performance of engineering systems and products (PGCert/PGDip/MEM) and to a major substantive case study (MEM).	Lectures, Specified reading, Exercises, Tutorials, Group discussion, private study, and assignment feedback (formative and summative). Major project work, including team meetings and supervision meetings.	Module examinations, coursework exercises, tutorial questions, individual reports/essays. Major project report and presentation.

iv) Critical analysis

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
A successful student will critically appraise results of engineering management analyses, results and literature on the discipline of management and its application in engineering, including in different cultural, environmental and organisational contexts (PGCert/PGDip/MEM).	Lectures, Specified reading, Exercises, Tutorials, Group discussion, private study, and assignment feedback (formative and summative). Major project work, including team meetings and supervision meetings.	Module examinations, coursework exercises, tutorial questions, individual reports/essays. Major project report and presentation.

v) Presentation

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
A successful student will present and defend scientific and business results, management analysis and conclusions in an organized and appropriate medium to a professional standard with clarity, fluency and coherency (PGCert/PGDip/MEM), and present the results of a substantive team engineering management project (MEM).	Exercises, Tutorials, Group discussion, Major project work, including team meetings and supervision meetings.	Module examinations, coursework exercises, tutorial questions, individual reports/essays. Major project report and presentation.

vi)   Appraisal of evidence

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
A successful student will locate, organise and assess data, analyse complex ideas and appraise and criticise different arguments (PGCert/PGDip/MEM). A successful student will conduct independent inquiry, evaluating engineering management topics and application at an advanced level and proposing and justifying solutions (MEM only)	Lectures, Specified reading, Exercises, Tutorials, Group discussion, private study, and assignment feedback (formative and summative). Major project work, including team meetings and supervision meetings.	Module examinations, coursework exercises, tutorial questions, individual reports/essays. Major project report and presentation.

b) **Transferable skills**

i)   Research skills

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
A successful student will demonstrate intellectual independence through selecting appropriate methods (PGCert/PGDip/MEM), applying them to unfamiliar context and delivering a credible and substantial research project at an advanced level (MEM)	Lectures, Specified reading, Exercises, Tutorials, Group discussion, private study, and assignment feedback (formative and summative). Major project work, including team meetings and supervision meetings.	Module examinations, coursework exercises, tutorial questions, individual reports/essays. Major project report and presentation.

ii)   Communication skills

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
A successful student will be able to communicate to an acceptable standard in a professional environment (PGCert/PGDip/MEM).	Exercises, Tutorials, Group discussion, private study, and assignment feedback (formative and summative). Major project work, including team meetings and supervision meetings.	Module examinations, coursework exercises, tutorial questions, individual reports/essays. Major project report and presentation.

iii)   Data presentation

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
A successful student will be able to select and use appropriate IT, Analytical and graphical methods, CAD drawings, Statistics, financial results, and be able to locate, organise and marshal evidence and select and apply appropriate software packages for quantitative analysis (PGCert/PGDip/MEM).	Lectures, Specified reading, Exercises, Tutorials, Group discussion, private study, and assignment feedback (formative and summative). Major project work, including team meetings and supervision meetings.	Module examinations, coursework exercises, tutorial questions, individual reports/essays. Major project report and presentation.

iv)   Information technology

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
A successful student will be able to use standard and specialist IT tools (PGCert/PGDip/MEM, if appropriate developing tools or templates or applying programmes in unusual contexts (MEM).	Lectures, Specified reading, Exercises, Tutorials, Group discussion, private study, and assignment feedback (formative and summative). Major project work, including team meetings and supervision meetings.	Coursework exercises, tutorial questions, individual reports/essays. Major project report and presentation.

v)   Problem solving

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
A successful student will be able to propose one-off and continuous improvements to processes in specific contexts (PGCert/PGDip/MEM) and in complex, industrially relevant situations (MEM).	Lectures, Specified reading, Exercises, Tutorials, Group discussion, private study, and assignment feedback (formative and summative). Major project work, including team meetings and supervision meetings.	Module examinations, coursework exercises, tutorial questions, individual reports/essays. Major project report and presentation.

vi)   Working relationships

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
A successful student will demonstrate effective skills in project management, organisation, time management (PGCert/PGDip/MEM) collaborative and responsible working and/or leadership in teams (MEM).	Lectures, Specified reading, Exercises, Tutorials, Group discussion, private study, and assignment feedback (formative and summative). Major project work, including team meetings and supervision meetings.	Coursework exercises, tutorial questions. Major project report and presentation.

vii)   Managing learning

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
A successful student will demonstrate advanced study skills and identify their strengths and interests, including self-reflection upon behaviour and skills with a view to personal and professional development (PGCert/PGDip/MEM).	Lectures, Specified reading, Exercises, Tutorials, Group discussion, private study, and assignment feedback (formative and summative). Major project work, including team meetings and supervision meetings.	Module examinations, coursework exercises, tutorial questions, individual reports/essays. Major project report and presentation.

viii)   Career management

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
A successful student will reflect on motivation, strengths, interests and skills, using this to identify future career opportunities (PGCert/PGDip/MEM).	Lectures, Specified reading, Exercises, Tutorials, Group discussion, private study, and assignment feedback (formative and summative). Major project work, including team meetings and supervision meetings.	Module examinations, coursework exercises, tutorial questions, individual reports/essays. Major project report and presentation.

10. Special features

This programme is accredited by the Institution of Mechanical Engineers (IMechE) and The Institution of Engineering and Technology (IET) and is subject to 5 yearly re-accreditation.

11. Indicators of programme quality

The programme is subject to all normal departmental, college and institutional academic quality assurance processes.

12. Criteria for award and classification

This programme follows the standard scheme of taught postgraduate award and classification set out in Senate Regulations – see the version of *Senate Regulation 6 governing taught postgraduate programmes of study* relevant to year of entry.

The following additional award requirements for this programme have been approved:
- This programme follows the Scheme of Assessment for Master degree programmes with a structure of 120 credits of taught modules and a project of 60 credits, with the variation (required by the Engineering Council for accreditation purposes) that a maximum of 15 credits may be failed at grade D (40-49%) and no credits failed at grade F (0-39%). Students who fail to meet this criterion will be considered for an interim award based on the taught component of the programme.
- A student who successfully completes an industry placement but does not meet the award requirements for an MEM may be considered for the exit award of PGDip in Engineering Management with industry.
- Special conditions are required for the PGCert exit route to ensure engineering / management learning outcomes achieved are appropriate to the title of the award. If only the management (MN) modules are passed a PGCert in Management will be awarded. For other combinations of passes a PGCert in Engineering Management or a PGDip in Engineering Management will be awarded in accordance with the normal provisions of Senate Regulation 6.

13. Progression points

As defined in Senate Regulations - refer to the version of *Senate Regulation 6 governing taught postgraduate programmes of study* relevant to year of entry.

As defined in Senate Regulation 6: Regulations governing taught postgraduate programmes of study. The following additional progression requirements for this programme have been approved:
A Placement Student will revert back to the degree without Year in Industry if:

1. At the semester 1 exam board, they have less than one module at merit level and any failed modules at <50%. No progression rule is applied at the semester 2 exam board. In the case of failed modules with mitigating circumstances, the semester 1 board will use its discretion.
2. They fail to secure an industrial placement role.
3. They fail to pass the assessment related to the industrial placement.
4. The industrial placement ends early due to the behaviour of the Placement Student not being in accordance with the University's Regulations for Students, Student Responsibilities. The Placement Student will need to return to the University and carry out an in-house project in the School or Department, as per the normal non-Industry MEM. To prevent such an incident from happening, processes are in place to identify any possible issues or concerns early in the industrial placement role. This includes a start check, regular communications, visits to the workplace (physical and/or virtual) and evaluation. Communication and contact between the Placement Student, Placement Provider and University provides support should issues arise.
5. They discontinue their industrial placement and carry out an in-house project in the School or Department, as per the normal non-Industry MEM.

In the event that a Placement Student is moved to the standard campus-based MEM, the Placement Provider will be notified immediately. For overseas students, the UKBA will also be informed immediately. Placement Provider's will be made that any contract of employment shall be made subject to satisfactory completion of the taught part of the MEM.
Three months is the minimum time required for an industrial placement to be formally recognised. If the industrial placement is terminated earlier than 3 months as a result of event outside of the

Placement Students control (for example redundancy, or company liquidation), the following process will be adopted:

1. If the Placement Student has completed less than 2 months, they will be supported to search for another placement to take them up to the required minimum of 3 months for the industrial placement to be formally recognised. If the Placement Student does not find a placement to meet this criteria they will be required to suspend and transferred onto the degree without industry.

2. If the Placement Student has completed 2 months, they will be supported to search for another placement to take them up to the 3 months required for the industrial placement to be formally recognised. If the Placement Student cannot source an additional placement to take them to 3 months, assessments related to the industrial placement will be set for the student to make it possible for the individual learning objectives for the industrial placement to be met. This will allow with industry to be recognised in the degree certificate.

3. The duration of time between the two Placement Providers to meet the minimum 3 months of an industrial placement must not exceed the period of time required to comply with visa requirements.

4. A Placement Student is permitted to undertake an industrial placement which runs across two academic years.

In cases where a student has failed to meet a requirement to progress, he or she will be required to withdraw from the course and a recommendation will be made to the Board of Examiners for an intermediate/exit award where appropriate.

14. Rules relating to re-sits or re-submissions

As defined in Senate Regulations - refer to the version of *Senate Regulation 6 governing taught postgraduate programmes of study* relevant to year of entry.

15. External Examiners reports

The details of the External Examiner(s) for this programme and the most recent External Examiners' reports for this programme can be found at exampapers@Leicester [log-in required]

16. Additional features (e.g., timetable for admissions)

None

Programme Specification (Postgraduate)   **FOR ENTRY YEAR: 2023/24**

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Appendix 1: Programme structure (programme regulations)

The University regularly reviews its programmes and modules to ensure that they reflect the current status of the discipline and offer the best learning experience to students. On occasion, it may be necessary to alter particular aspects of a course or module.

MEM – Master of Engineering Management

Updates to the programme

Module affected	Update
MN7403 Accounting and Finance for Managers	Option module deleted
MN7402 Business Economics	Option module deleted
MN7401 Organisational Behaviour	Option module deleted
MN7374 International Human Resource Management	Option module deleted
MN7437 Accounting and Finance for Non-Specialist Managers	New core module
MN7436 Business Economics for Non-Specialists	New core module
EG7322 Lean and Quality Engineering	Name changed from Lean Engineering

Credit breakdown

Status	Year long	Semester 1	Semester 2	Other delivery period
Core taught	n/a	60 credits	60 credits	n/a

Status	Year long	Semester 1	Semester 2	Other delivery period
Optional	n/a	n/a	n/a	n/a
Dissertation/project	n/a	n/a	n/a	60 credits

180 credits in total

Level 7/Year 1-September intake   2023/24

Core modules

Delivery period	Code	Title	Credits
Semester 1	MN7437	Accounting and Finance for Non-Specialist Managers	15 credits
Semester 1	MN7436	Business Economics for Non-Specialists	15 credits
Semester 1	EG7311	Engineering Project Management	15 credits
Semester 1	EG7312	Systems Engineering	15 credits
Semester 2	MN7406	International Business	15 credits
Semester 2	EG7321	Engineering Business Management	15 credits
Semester 2	EG7322	Lean and Quality Engineering	15 credits
Semester 2	EG7323	Cost Engineering	15 credits
*Semester 1	ADEG7221	Placement Preparation 1	0 credits
*Semester 2	ADEG7222	Placement Preparation 2	0 credits

Notes

*These modules are only relevant for the 'with industry variant'. The 'with industry' programme includes an industrial placement of between 3 and 12 months, following the end of the final exam period in the taught phase, Placement Students will return to the University to complete the project/dissertation after the industrial placement.

Notes

This is an indicative list of option modules and not definitive of what will be available. Option module choice is also subject to availability, timetabling, student number restrictions and, where appropriate, students having taken appropriate pre-requisite modules.

Level 7/Summer

Core modules

Delivery period	Code	Title	Credits
Summer	EG7302	Engineering Management Project	60 credits

Level 7/Year 1- January intake   2023/24

Core modules

Delivery period	Code	Title	Credits
Semester 2	MN7406	International Business	15 credits
Semester 2	EG7321	Engineering Business Management	15 credits
Semester 2	EG7322	Lean and Quality Engineering	15 credits
Semester 2	EG7323	Cost Engineering	15 credits
Semester 1	MN7437	Accounting and Finance for Non-Specialist Managers	15 credits
Semester 1	MN7436	Business Economics for Non-Specialists	15 credits
Semester 1	EG7311	Engineering Project Management	15 credits
Semester 1	EG7312	Systems Engineering	15 credits
*Semester 2	ADEG7222	Placement Preparation 2	0 credits
*Semester 1	ADEG7221	Placement Preparation 1	0 credits

Notes

Please note that for January intake student Semester 2 will be first and followed by Semester 1.

*These modules are only relevant for the 'with industry variant'. The 'with industry' programme includes an industrial placement of between 3 and 12 months, following the end of the final exam period in the taught phase, Placement Students will return to the University to complete the project/dissertation after the industrial placement.

Level 7/January 2025

Core modules

Delivery period	Code	Title	Credits
January	EG7302	Engineering Management Project	60 credits

Appendix 2: Module specifications

See taught postgraduate module specification database (Note - modules are organized by year of delivery).