Template C4

Programme Specification

Title of Course: *MSc Engineering Management*

Date first produced	01/12/2012
Date last revised	07/05/2025
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Version number	11
Faculty	Faculty of Engineering, Computing and the Environment
Cross-disciplinary	
School	School of Engineering
Department	Department of Mechanical Engineering
Delivery Institution	Kingston University

This Programme Specification is designed for prospective students, current students, academic staff and employers. It provides a concise summary of the main features of the programme and the intended learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if they take full advantage of the learning opportunities that are provided. More detailed information on the learning outcomes and content of each modules can be found in the course VLE site and in individual Module Descriptors.

SECTION 1: GENERAL INFORMATION

Award(s) and Title(s):	MSc Engineering Management
Exit Award(s) and Title(s):	PgDip Engineering Management PgCert Engineering Management
Course Code *For each pathway and mode of delivery*	PPEPS1EPS02 PFEPS1EPS01
UCAS code *For each pathway*	N/A

Award(s) and Title(s):	MSc Engineering Management with Professional Placement
Exit Award(s) and Title(s):	PGCert Engineering Management with Professional Placement PGDip Engineering Management with Professional Placement
Course Code *For each pathway and mode of delivery*	
UCAS code *For each pathway*	

Awarding Institution:	Kingston University
Teaching Institution:	Kingston University
Location:	Kingston University
Language of Delivery:	English
Delivery mode:	Primarily campus based (up to 20% of scheduled L&T hours delivered online)
Learning mode(s):	Part-time With Professional Placement Full-time
Minimum period of registration:	Part-time - 2 With Professional Placement - 2 Full-time - 1
Maximum period of registration:	Part-time - 4 With Professional Placement - 3 Full-time - 2

Entry requirements	Kingston University typically uses a range of entry requirements to assess an applicant's suitability for our courses. Most postgraduate taught course requirements are based on having been awarded a relevant undergraduate degree and are normally coupled with minimum grades expectation of 2:2, specific courses in certain areas may have a stricter grade requirement. We may also use interview, portfolio and performance pieces to assess a person's suitability for some courses. We recognise that every person's journey to a postgraduate taught education is different and unique and in some cases we may take into account work experience and other non-standard pathways onto University level study. Additionally, all non-UK applicants must meet our English language requirements. Please see our course pages on the Kingston University website for the most up to date entry requirements.
Regulated by	The University and its courses are regulated by the Office for Students.
Programme Accredited by:	Institute of Mechanical Engineering
Approved Variants:	To comply with Engineering Council regulations, a maximum of 20 credits can be compensated within this programme.
Is this Higher or Degree Apprenticeship course?	No

SECTION 2: THE COURSE

A. Aims of the Course

The main aims of the MSc Engineering Projects and Systems Management

- Provide a “period of further learning” which is a requirement of the Institution of Mechanical Engineers for Chartered Engineer status for students with an accredited BEng.
- Equip students with the multi-disciplinary understanding and the key skills necessary to apply the principles of specialised subjects within the engineering field.
- Enhance the skills and knowledge required to enable students to contribute effectively to manufacturing and other engineering industries and give them the capability to hold responsible positions within industry.
- Develop the personal attributes and skills expected of a graduate with a master’s degree and to give them a secure foundation for their personal, intellectual, and professional development.
- Acquire a detailed knowledge of understanding of how various management techniques are applied in engineering companies.
- Develop an understanding of effective project management methods in engineering companies when new products or services are launched.
- Recommend and implement appropriate solutions to make an engineering company more competitive and operationally more efficient.
- Further enhance the understanding and application of advanced project management techniques by engaging an industrial oriented project and applying the knowledge learnt in the course, and to recommend feasible solutions supported by a broad literature research.

B. Programme Learning Outcomes

The programme learning outcomes are the high-level learning outcomes that will have been achieved by all students receiving this award. They have been aligned to the levels set out in ‘Sector Recognised Standards in England’ (OFS 2022).

Programme Learning Outcomes					
	Knowledge and Understanding On completion of the course students will be able to:		**Intellectual Skills** On completion of the course students will be able to		**Subject Practical Skills** On completion of the course students will be able to
A1	Achieve a systematic and detailed understanding of a chosen coherent subset of the engineering systems and project management process.	B1	Demonstrate a critical awareness of the current developments in the engineering systems and project management environment.	C1	Select, justify and implement effective management techniques in order to achieve better organisation efficiency and overall competitiveness.
A2	Develop an impact of different management and operational problems and how appropriate techniques can be applied to resolve them.	B2	Achieve a good understanding of essential criteria in effective project and risk management.	C2	Evaluate and use different software and team role-play workshops to promote interaction between employees in an engineering environment.
A3	Apply a structure of an engineering organisation, the interaction of its functional department and importance of resources optimisation.	B3	Identify current issues and trends in project management in different industrial sectors.	C3	Measure the performance of an engineering company through using benchmarking and other management techniques.
A4	Engage in the critical community including reflecting on one's own and others practices and relate them to an engineering environment.	B4	Identify, analyse, and evaluate critical engineering operations issues and recommend feasible solutions.	C4	Apply appropriate operation and project management techniques to improve internal and external communications for an organisation.
A5	Apply complex nature of engineering projects and their associated risks, and how they	B5	Initiate and sustain a planned and disciplined personal effort when working alone or in a team.	C5	Apply advanced project management techniques to monitor a new engineering project.

	can be managed more effectively.				
A6	Identify human resource related problems in an engineering company and recommend appropriate actions.			C6	Create and run simulation models for improving bottleneck resources in an engineering organisation.

C. Future Skills Graduate Attributes

In addition to the programme learning outcomes, the programme of study defined in this programme specification will engage students in developing their Future Skills Graduate Attributes:

1. Creative Problem Solving
2. Digital Competency
3. Enterprise
4. Questioning Mindset
5. Adaptability
6. Empathy
7. Collaboration
8. Resilience
9. Self-Awareness

D. Outline Programme Structure

In the emergence of global business platform and the increasing deployment of advanced internet technology today, an organisation has to be innovative, efficient, competitive, resourceful, and well structured so that they can maintain and even expand their business presence in this 21st century. Because of the rapid growth of technology and higher expectation from customers, product life spans are getting shorter and shorter. As a result, many companies are driven by new projects and new products which have to be developed quickly and efficiently. This also requires the adjustment to business and resources strategy in order to satisfy the tougher demand.

To date knowing how to implement relevant technical knowledge in a specific discipline is no longer sufficient, many engineering companies are looking for graduates who can also demonstrate the skill set in project and resources management. This skill set includes planning, deploying, and utilising all the resources in a new project in the most effective way. In addition, all the constraints and possible risks must be fully evaluated to ensure a project conclude successfully.

The programme is accredited by the Institution of Mechanical Engineers (IMechE). This accreditation certifies the fact that this course is of the appropriate standard and content, representing the knowledge base required to achieve Chartered status. The course will provide an excellent opportunity to improve the students' technical portfolio with a practical knowledge in operation efficiency and project management. It adds a spectrum of transferrable engineering management skill to any previous achieved engineering qualification. Graduates will see their employability greatly enhanced, and they can take this unique mix of skill set and work in any company in the world.

Essential skills such as Project & Operation Management, Resources utilisation & optimization, Productivity measurement & Benchmarking, Business Strategy, Factory

Simulation and Quality Management concept will allow the graduate to fill senior management roles in many engineering companies.

The course is delivered with the support of external industrial speakers who bring their experience into the classroom so that students can learn how real problems can be solved using the techniques they have learned in the lectures. Throughout the course innovative teaching methods, with the aid of a virtual learning platform, will be used inside and outside the classroom to enhance the students learning experience.

One of the main features of the course is that many of its subject materials are highly research oriented and taught by active and internationally recognised research academics in the faculty. This provides the students with additional opportunity to deepen their subject interest by selecting a research-based project dissertation. The project dissertation, which can be customised to meet the individual requirement and career ambition of a student, will enable them to be specialised in a chosen field and prepare them for the world of work.

Students will also have the opportunity to engage with the wider Faculty research community through attending regular research seminars and participating in research forums run by PhD students. This may lead to the possibility of furthering their studies towards a PhD research degree. There are also ample opportunities for Maser students to take leading roles in a range of extracurricular activities which are run across all levels of a subject area in the faculty.

The delivery of the course is led by technology. In addition to the well-balanced structure of lectures and practical sessions using cutting edge technology, all course materials including teaching and supplementary materials, tutorial questions, subject discussion forums, video clips, relevant case studies, module guides and assessment marking schemes can be accessed online in a virtual learning environment.

Graduates from this course will see their employability potential greatly enhanced, and they can take the unique mix of knowledge and skills acquired in this course to work in any company in the world. The programme also helps develop employment-ready students through an integrated industrial experience in the form of a work placement on the two-year version of the programme.

This integrated placement provides students with an exciting opportunity to apply and develop their knowledge and skills in a real-world setting, which enables them to develop their self-confidence. Students undertaking such placement activities are in a stronger position to gain the skills and experience that employers desire today.

Full details of each module will be provided in module descriptors and in the module canvas pages.

MSc Engineering Management

Level 7							
MSc Engineering Management							
Core modules	**Module code**	**Credit Value**	**Level**	**Teaching Block**	**Pre-requisites**	**Full Time**	**Part Time**
Advanced Product Modelling	ME7744	15	7	TB2		1	2
Dissertation	ME7743	60	7	TB3		1	2
Engineering & Business Resource Management	ME7717	15	7	TB2	None	1	2
Industrial Operations Management	ME7716	15	7	TB2	None	1	2
Integrative Operations Project Management	ME7715	30	7	TB2	None	1	2
Research Techniques, Innovation & Sustainability	ME7742	30	7	Tb1		1	1
Optional Modules							
Advanced Product Modelling	ME7744	15	7	TB1		1	2
Professional Placement	CI7900	120	7	Year Long		2	4
Quality Management System	ME7738	15	7	TB1	None	1	2

Exit Awards at Level 7

Students exiting the programme with 60 level 7 credits are eligible for the award of Postgraduate Certificate.
Students exiting the programme with 120 level 7 credits are eligible for the award of Postgraduate Diploma.

E. Teaching, Learning and Assessment

This course uses a range of teaching and assessment methods which have been designed to support students' learning and achievement of the learning outcomes. The course has been developed with reference to the Kingston University Academic Framework which sets-out core principles relating to Course and Credit Structure (including Module delivery Structure and Pattern, and Learning Hours and Learning Formats); Curriculum Design (inclusion Learning Design Principles and Inclusive Curriculum); and Future Skills.

Teaching and Learning on the course consist of Scheduled Learning and Teaching and Guided Independent Study (self-managed time). Scheduled Learning and Teaching includes the following, and the format for each module is set out in the module specification:

- Laboratory Sessions
- Lectures
- Seminars
- Tutorials
- Workshops
- Placements

Guidance for students on the use of independent study time is communicated through the 'Succeed in your module' section on the Canvas Virtual Learning Environment and through other communications during the course.

In addition to the core Scheduled Learning and Teaching activities for the course, the University may offer students additional optional opportunities for learning. Examples of these include Study abroad and Work-based learning.

The course will provide students with the opportunity to develop their knowledge and skills relating to at least two United Nations Sustainable Development Goals (UN SDGs). We are committed to empowering students with the knowledge, skills and opportunities to understand and address the UN SDGs: each course is thus also required to prepare students for at least two of the SDGs (not including Quality Education, which all courses must deliver).

F. Support for Students and their Learning

Students are supported through a range of services that provide academic and wider support. These include:

- A Module Leader for each module
- A Course Leader to help students understand the course structure
- Personal Tutors to provide academic and personal support
- Technical support to advise students on IT and the use of software

- Student Voice Committee – to ensure the views of students are heard
- Canvas – Kingston University's Virtual Learning Environment
- Student support facilities that can provide advice on issues such as finance, regulations, legal matters, accommodation, international student support
- Disabled student support
- The Kingston Students' Union
- Student Development and Graduate Success

G. Ensuring and Enhancing the Quality of the Course

The University has policies and procedures for evaluating and improving the quality and standards of its provision. These include:

- Continuous Monitoring of courses through the Kingston Course Enhancement Programme (KCEP)
- Student evaluation including Module Evaluation Questionnaires (MEQs), the National Student Survey (NSS)
- Internal and external moderation of graded assignments

H. External Reference Points

External reference points which have informed the design of the course. These could include:

- PSRB standards
- QAA Subject benchmarks
- Other subject or industry standards

I. Development of Course Learning Outcomes in Modules

This table maps where programme learning outcomes are **summatively** assessed across the **core** modules for this course. It provides an aid to academic staff in understanding how individual modules contribute to the course aims, a means to help students monitor their own learning, personal and professional development as the course progresses and a checklist for quality assurance purposes.

Module Code		**Level 7**							
		ME7716	**ME7717**	**ME7742**	**ME7715**	**ME7738**	**ME7744**	**ME7743**	**CI7900**
	A1	S	S		S				

Knowledge & Understanding	A2				S				
	A3				S				
	A4		S						
	A5				S				
	A6		S		S				
Intellectual Skills	B1								
	B2	S	S		S				
	B3								
	B4	S	S		S				
	B5								
Practical Skills	C1		S		S				
	C2	S			S				
	C3	S	S						
	C4	S	S						
	C5				S				
	C6		S						

Students will be provided with formative assessment opportunities throughout the course to practise and develop their proficiency in the range of assessment methods utilised.

Additional Information