The Knowledge Hub
International University Institution of Egypt

partnered with
Coventry University

Course Specification

Part A
MSc Engineering Management

Specialist Routes:
Engineering Business Management (TKHT005)
Operations Management (TKHT006)
Technology Management (TKHT007)

School of Engineering

From Academic Year: 2025/2026

Please note: This specification provides a concise summary of the main features of the course and the 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.

We regularly review our course content, to make it relevant and current for the benefit of our students. For these reasons, course modules may be updated.

The accuracy of the information contained in this document is reviewed by the University and may be verified by external agencies.

PART A Course Specification (Published Document)

1. Introduction

Course Summary:

This MSc course prepares students to have the capability to excel, and to be successful senior managers in engineering companies in ever-more highly competitive international environments.

Course Introduction:

To help deliver this, a very important distinguishing feature of this course is that it has been designed to incorporate three alternative Specialist Routes that allow the student to select a Route that is clearly focused on their anticipated or current career path in an engineering company. The selection of one from three Routes (Engineering Business Management (EBM), Operations Management, or Technology Management) adds specific career-focused content to the core modules that all students take. Typical career routes are:

- EBM Route – Purchasing, Business Planning, or Distribution.
- Technology Management Route – R&D, Design, or Technical Sales.
- Operations Management Route – Manufacturing, Facilities, Maintenance.

Key Course themes include equipping students to successfully manage an engineering business and enabling students to contribute to the wealth generation of a company within a sustainability context. These are key requirements of industry.

Examples of Course content (dependent on Route) include:

- Managing an Engineering Business, including sustainability.
- Leading Transformation Through Innovation and Entrepreneurship.
- Project Management
- Quality Systems and Technology, including Industry 4.0
- Generative Design

The attractions of this Course and why it should be studied are that:

- It has a strong focus in the areas of both engineering and management.
- Students will benefit from the industrial experience of those academics who have worked in industry and who truly understand engineering management issues.
- There is a strong emphasis on the application of knowledge, and the importance of this application.

The Course is aimed at students who wish to pursue a career in the engineering sector in any of the many departments/functions that comprise an engineering company and who have a second-class honours degree (minimum 2:2 or higher) in any engineering-related or management discipline obtained from a recognised higher education institution. There are exceptions to this (see section 16).

The innovative features of the course include:

- Developing student capability to potentially deliver enhanced wealth generation within a company
- Engineering and management computer simulations
- A syllabus that addresses key areas of engineering and business management theory within an international context.

The unique benefits of this course are that it:

- Enables the content to be tailored to meet students' career aspirations in terms of a business management, operations management, or technology management career path
- Provides students with an opportunity to apply for a variety of roles in engineering companies
- Does not require several years of prior industrial experience in their chosen field as an entry qualification.

How you will learn:

The core principles underpinning our teaching and learning strategy in the school is the integration of active, social, applied and inclusive approaches (ASIA). Key elements of the teaching and learning strategy include:

Active

Module delivery uses a wide range of teaching and learning resources that is appropriate to the content and enables and supports individualised learning needs for a diverse student population. The emphasis throughout is problem-based learning: Students are encouraged to creatively problem solve using the appropriate analytical tools in a professional manner.

Social

Students have multiple points of engagement with learners from a range of cultures, experiences and organisations. There is a mix of individual and group formative and summative tasks that promotes and encourages social interactions.

Applied
Modules will include seminars, tutorials and workshops as well as theoretical lectures. This supports students to put their knowledge into practice by tackling real-world scenarios. Assessment will also encourage students to engage with real-world or simulated scenarios to support their submissions, reinforcing active learning.

Inclusive
Course teaching and learning sessions foster open discussions in a safe and inclusive environment, where everyone feels comfortable sharing and learning from a wide range of experiences and backgrounds. Academic delivery is designed to encourage collaboration through activity, encouraging multi-disciplinary involvement and ways of working.

2 Available Award(s) and Modes of Study

Title of Award	Mode of attendance	FHEQ Level
MSc Engineering Management **Fallback Awards** PgD Engineering Management PgC Engineering Studies	Full time 1 year Part time up 2 years	L7

3 Awarding Institution/Body	Coventry University
4 Collaboration	Autonomous Franchise
5 Teaching Institution and Location of delivery	Coventry University Branch at TKH The Knowledge Hub Universities Campus New Administrative Capital, Residential Area 7, R7, Cairo Governorate
6 Internal Approval/Review Dates	Approved from: July 2021 Date for next review: no later than academic year 2027/2028
7 Course Accredited by	N/A
8 Accreditation Date and Duration	N/A
9 QAA Subject Benchmark Statement(s) and/or other external factors	This course has been developed using the QAA's Framework for Higher Education with reference to the *Subject Benchmark Statement - Engineering* (2023) and the *Subject Benchmarking Statement for Master's Degrees in Business and Management* (2023). Available from: QAA Subject Benchmark statement(s) It has also been developed using guidance from The Institution of Engineering and Technology (IET)
10 DBS requirement	Not required
11 Date of Course Specification	June 2025
12 Course Director	TKH: Menna Fouad

	Link Tutors (Provisional): Ramy Shaltout and Richard Anderson

13 Outline and Educational Aims of the Course

This MSc in Engineering Management aims to provide students with a comprehensive understanding of key aspects of appropriate areas and to develop knowledge, skills and expertise that can be applied to the wealth generating engineering sector. The educational experience also aims to develop students' intellectual and personal skills and give them the capability to undertake a practical research study and publish results. This will prepare students to pursue careers and be leaders in the global engineering sector in a sustainability context

The Aims of the course are to:

- Prepare students to make significant contributions to their profession, the economy and society.
- Enable students to develop their analytical, communication, and team working skills, and to exercise responsibility and sound management approaches.
- Provide students with a transformative learning experience through, for example, activity-led learning where students focus on a variety of activities, including, case studies, computer simulations, or work-based problems and the lecturers facilitate the solutions This is underpinned by research inspired teaching.
- Provide students with the opportunity to deal with complex issues, demonstrate self-direction and develop transferable skills as the foundation of lifelong learning and continuous professional development.
- Create an educational environment that enables students to explore the current and emerging technologies, applications and digital tools used in global manufacturing industries.
- Provide the opportunity for students to advance their engineering proficiency and develop new skills and knowledge.
- Mentor students to act ethically and professionally in the process of creating wealth in a culturally diverse and highly competitive global economy.

14 Course Learning Outcomes

On successful completion of the course a student will be able to:

1. Critically evaluate the role of managers in their task of ensuring that a manufacturing company continues to create wealth in an appropriately sustainable manner, through their ability to think strategically and explore potential solutions to complex and ambiguous problems in production operations, technical areas or in management.
2. Explore, critically evaluate, and apply a range of appropriate models and concepts within a practical manufacturing setting.
3. Critically appraise the social, economic, and environmental impact of an engineering company in the context of ethical and responsible management practices.
4. Discriminate between different leadership practices and the associated alternatives for effective communication and team management approaches, to enable a culturally sensitive approach towards an engineering company's stakeholders.
5. Develop the necessary study and research skills to support the analytical, critical, and reflective requirements of the written, oral and group working aspects of assignments, and of the individual project, thereby addressing academic requirements as well as enhancing employability.

In addition to the Course Learning Outcomes above the Coventry University Group Graduate Attributes are embedded throughout the course. The attributes will be articulated to clearly evidence how students are able to develop and demonstrate attainment of these attributes during their studies.

15 Course Structure, Modules, Credits and Progression and Award Requirements

The course structure is as set out below. There are three mandatory modules, and three Specialist Routes each comprising two different modules. The course has been designed to operate over a flexible one year of full-time study or up to 2 years part time.

	<u>Common Modules</u> • Managing an Engineering Business	

	• Project Management • Project	
Engineering Business Management Route • Supply Chain and Procurement Management • Leading Change Through Innovation and Entrepreneurship	**Operations Management Route** • Manufacturing Systems Analysis • Quality Systems and Technology	**Technology Management Route** • Generative Design • Advanced Materials and Manufacturing Technologies

This combination of Course title/extent of engineering content/career-focussed selectable Specialist Routes is unique across UK Universities at the point of validation.
Please note that due to the rolling delivery pattern, the pattern below is indicative and may be subject to change.

Table 1

Cred	Modul	Title	Learn	Asse	Mand	Course
Core Mandatory Modules, and						
7	KH7018ENG	Managing an Engineering Business	30	30	M	1, 2, 3, 4, 5
7	KH7005ENG	Project Management	30	30	M	1, 2, 4, 5
7	KH7006ENG	Project	60	60	M	2,5
Engineering Business Management route, or						
7	KH7058ENG	Leading Change Through Innovation & Entrepreneurship	30	30	M	1, 2, 3, 4, 5
7	KH7055ENG	Supply Chain and Procurement Management	30	30	M	1, 2, 3, 4, 5
Operations Management route, or						
7	KH7008ENG	Manufacturing Systems Analysis	30	30	M	1, 2, 4, 5
7	KH7009ENG	Quality Systems and Technology	30	30	M	1, 3, 4, 5
Technology Management route						
7	KH7000ENG	Generative Design	30	30	M	1, 2, 4, 5
7	KH7011ENG	Advanced Materials and Manufacturing Technologies	30	30	M	1, 2, 4, 5

Cascade of Awards:

MSc Engineering Management
↓
Postgraduate Diploma Engineering Management
↓
Postgraduate Certificate Engineering Studies

Conditions for the award of a Master's degree
The award of an MSc degree from this course requires students to pass all 180 credits.

Conditions for fallback award
The award of a Postgraduate Diploma from this course requires students to pass any 120 credits from the course.
The award of a Postgraduate Certificate from this course requires students to pass any 60 credits from the course.

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16 Criteria for Admission and Selection Procedure

The entrance requirement for the MSc Control, Robotics and Intelligent Automation is a second-class honours degree (minimum 2:2 or higher) in any engineering or physics science discipline obtained from a recognised higher education institution.

Applications from those not possessing the equivalent of an honours degree will be considered on a case-by-case basis by the Link Tutor reviewing work experience, academic background, and motivation.

Applicants whose first language is not English or who have not completed a first degree in which English was the main language of tuition must provide evidence of English language ability. The criterion for admission is an IELTs score of 6.5 or higher (and at least 5.5 in each component) or equivalent qualification.

Recognition for prior learning (RPL) or prior experiential learning (RPEL) may be granted for modules at the discretion of the Course Director providing that adequate evidence of learning is submitted by the student in accordance with the University guidelines. RPL/RPEL is in accordance with the University Regulations for Taught Postgraduate courses and will be limited to the maximum specified in University Academic Regulations. Policies can be found on the TKH website: The Knowledge Hub Universities | Policies and Regulations

17 Academic Regulations and Regulations of Assessment

This Course conforms to the Regulations for the delivery of Coventry University Taught Postgraduate Awards at the Coventry University Branch at The Knowledge Hub, Egypt.

18 Indicators of Quality Enhancement

The Course is managed by the School of Engineering Board of Study at TKH (Egypt).

The Progression and Awards Board (PAB) for the School of Engineering (TKH Egypt) is responsible for considering the progress of all students and making awards in accordance with both the University and course-specific regulations.

The assurance of the quality of modules is the responsibility of the School of Engineering (TKH Egypt) which contribute modules to the course.

External Examiners are appointed by Coventry University's Academic Board for all courses that lead to an academic award. External Examiners have the opportunity to moderate all assessment tasks and a sample of assessed work for each module. They will report annually on the course and/or constituent modules and their views are considered as part of the annual quality enhancement and monitoring process.

Student views are sought through module and course evaluation questionnaires and the Students' Union Student consultative processes. There is also student representation on a range of key committees at course, School and College level.

19 Additional Information

Enrolled students have access to additional, key sources of information about the course and student support including:

- Academic Course Director(s) are responsible for particular activities across the course and are able to provide advice and support to students in course-related matters;
- Student Handbook;
- Module Descriptors;
- The Knowledge Hub Study Support Information.