

Course Specification Part A

MSc Engineering Project Management EECT054

Faculty of Engineering, Environment and Computing School of Mechanical, Aerospace and Automotive Engineering Academic Year: 2021/2022

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 s/he takes 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

More detailed information on the learning outcomes, content, and teaching, learning and assessment methods of each module can be found in the Module Information Directory (MID), student module guide(s) and the course handbook.

The accuracy of the information contained in this document is reviewed by the University and may be verified by the Quality Assurance Agency for Higher Education.

Coventry University's accreditation with CMI is currently ongoing for the relevant modules and is regularly reviewed and monitored by the CMI through their quality systems. Whilst Coventry University anticipates that these reviews will continue to be successful, if they were to be unsuccessful, the relevant module in this course would no longer be accredited and we would notify applicants and students of this change as soon as possible.

1. Introduction

The Engineering Project Management (EPM) MSc degree prepares students for managing organisational change through projects. Most organisations are now project-based and projects are becoming extensively and increasingly technically complex. This is projected to be the trend in years to come. The concept and content of professional project management remain the same, although the context might be different both locally and globally. It is, therefore, imperative that engineering project managers involved in multi-faceted projects must possess skill-sets that will enable them to operate seamlessly in both local and international engineering organisations.

The course aims to provide students with an understanding of, and skills in, initiating, planning, monitoring and controlling, and closing stages of engineering projects. The knowledge and understanding of PM tools and techniques gained from this programme can be adapted to manage what, up until recently, were considered operational procedures. Students on this course learn to appreciate the human dynamics of engineering project teams with respect to leadership, communication and teamwork.

This course takes a high level, critical and evaluative view of the subject, emphasising managerial and strategic use of the tools and techniques of engineering project management. The programme is closely linked with the industry as our industrial partners review all our Module offerings annually to ensure that it meets industrial standards. Thus ensuring that graduates from this programme are employable as Project Managers after successfully completing their course. Our industrial partners also send Senior Project Management Directors to deliver prestigious PM lecture(s) and sponsors awards at Graduation for EPM Overall Best Student Award and EPM Best Thesis student. These awards are given out by Bosch in the UK at our graduation in November every year.

This programme is also accredited by the Association for Project Management (APM) having fulfilled the requirements stipulated by APM. This means as a student you will be studying a programme accredited by the chartered Project Management professional body. Another feature of this course is that you will gain better understanding of different project management methodologies. You will obtain sufficient skills and knowledge of Agile Project Management and APM Fundamentals to be able to take certification exams, with a limited number of scholarships being available for students to take these exams.

For students in today's competitive employment markets having work experience can significantly enhance employment prospects. To encourage personal development, students are invited to attend the Association for Project Management (APM) events in the West Midlands and we also invite senior officials from the chartered professional body to deliver prestigious lectures to our students. It is recommended that all students on this course become a member of the professional body. Furthermore, the course offers students the opportunity to undertake a work placement, extending the main provision to a two-year course. The work placement could be International or within the UK with a focus which may be industry or research based. Following a selection process within the first semester and subject to securing an approved placement opportunity, students would move onto the two-year course. International students who are interested in a work placement will be supported in completing an application for extending their Tier 4 visa by international student support services. Upon completion of their placement, students will return to complete the course and the final project for the full award.

As part of this course you will undertake a professional development module which is currently accredited by the Chartered Management Institute (CMI). Upon successful completion of the module, you will gain the CMI Level 7 Certificate in Strategic Management and Leadership Practice at no additional cost.

This course helps technical managers improve their project management skills and there have been a high level of successful MSc Engineering Project Management graduates working in the industry. Students who studied MSc EPM have been gainfully employed in different organisations worldwide, such as:

- Jaguar Land Rover, UK
- Saudi Aramco
- BMW
- Bosch in the UK
- Coventry University, UK
- Chevron Corporation
- DHL Ltd
- PDS Protek AS, Norway
- Axillium Research, UK

• Caparo AP Braking Ltd, UK

By the end of your programme you will be able to apply advanced engineering project management tools and techniques to complex and troubled projects.

This course has three entry points namely September, January and May.

2 Available Award(s) and Modes of Study						
Title of Award		Mode of attendance	UCAS Code	FHEQ Level		
MSc in Engineering Project Manag	ement	Full-time 1 year	N/A	7		
		2 years with Work Placement				
		Part-time 2 years				
<u>Fall-back awards</u> : PgD in Engineering Project Management PgC in Engineering Project Management						
3 Awarding Institution/Body	Coventry University					
4 Collaboration	None					
5 Teaching Institution and Location of delivery	Coventry University					
6 Internal Approval/Review	Date of approval/latest review					
Dates	Date for next review: 2024/2025					
7 Course Accredited by	Association for Project Management (APM)					
8 Accreditation Date and Duration	March 2020 – March 2023					
9 QAA Subject Benchmark Statement(s) and/or other external factors	Developed in line with The Framework for Higher Education Qualifications https://www.qaa.ac.uk/docs/qaa/quality-code/qualifications-frameworks.pdf according to the Subject Benchmark for Engineering statements https://www.qaa.ac.uk/docs/qaa/subject-benchmark-statements/subject- benchmark-statement-engineering.pdf?sfvrsn=1f2c881_16 the Engineering Council UK-SPEC Forth edition https://www.engc.org.uk/media/3417/uk-spec-fourth-edition.pdf and Professional Body: Association for Project management (APM)					
10 Date of Course Specification	February 2021					
11 Course Director	Karim Ahmed					

12 Outline and Educational Aims of the Course

This course aims to prepare students for developing their careers in the areas of engineering project management. The course introduces students to all the key aspects of managing engineering projects, and to the required fields of general management necessary for a complete portfolio of project management skills and knowledge. The educational experience enables the students to achieve an integrated understanding of the operation and strategy of project management and to develop appropriate intellectual and personal skills.

Specifically, the course aims to:

- 1. Enable students to explore the current and emerging technologies and applications in Engineering Project Management
- 2. Provide the framework within which students can develop an analytical understanding of both the functional nature of business and the holistic nature of engineering project management.
- 3. Provide students with the opportunities to develop a range of skills and the ability to apply a variety of engineering project management tools and techniques.
- 4. Create an educational environment that gives access to both academic and industrial experience and enables students to operate as effective project managers
- 5. Use activity-led learning and research inspired teaching to provide students with a comprehensive innovative learning experience
- 6. Stimulate a pro-active approach to organisational issues, which illustrates an understanding of the impact of the changing environment and the context within which project managers and organisations operate.
- 7. Develop study skills needed to support the effective prosecution of the written, oral and group working aspects of assignments and individual research project.
- 8. Plan self-learning and improve performance as the foundation of lifelong learning and continuous professional development.

13 Course Learning Outcomes

A student who successfully completes the course will be able to:

- 1. Apply advanced business and project management techniques to the analysis and solutions across a wide range of business settings
- 2. Understand a range of advanced business and engineering management techniques to achieve competitive advantage
- 3. Critically appraise the potential causes of disputes, liabilities, and breaches of contract and the basics of contract law
- 4. Demonstrate their capacity to enact, through projects, the principles of change management and become effective change agents in engineering organisations
- 5. Assess the feasibility of a project integrating the technical, contractual and human resource elements
- 6. Evaluate the need for professional and ethical conduct in commercial and social contexts, a knowledge of management and business practice and their limitations together with an understanding of sustainable development and the relevant regulations governing engineering activities in order to critically appraise risk
- 7. Critically evaluate the principles of developing and proposing strategy for leading strategic change
- 8. Contribute to a team with the necessary planning, reviewing, adaptability, drive and leadership to achieve the required objectives and observe work schedules
- 9. Apply the necessary study and research skills to support the analytical, critical and reflective requirements of written, oral and group assessments
- 10. Clearly communicate research, concepts, solutions and recommendations, and demonstrate a professional approach to written and/or oral presentations.

14 Course Structure and Requirements, Levels, Modules, Credits and Awards

This course is delivered using a modular approach. The full-time course is usually delivered over two teaching semesters of 13 weeks each. A third semester is normally devoted to independent study and preparation of a Dissertation. The course is a 1-year full-time course, with September, January and May intakes. The following table shows the modules for this course based on the Teach-Teach-Dissertation Cycle being used (as such all taught modules must typically be undertaken first, and the dissertation is taken last). Personalised timetables will be issued to students prior to their course start date. The delivery of this course is normally undertaken via the method just described, but it is also possible that his can be delivered in a block delivery format if required.

The course structure complies with the requirements defined in the University's Postgraduate Principles of Course Design document. Modules within the course, the level at which they are taught and their credit value are outlined in the following table.

Module credit level	Module Code	Title	Credit Value	Mandatory/ Optional	Course Learning Outcomes
7	7017MAA	Project Management	15	Mandatory	1,2,4,5,6,8,9,10
7	7057MAA	Advanced Experiential Project Management	15	Mandatory	1,2,3,6,7,10
7	7058MAA	Engineering Project Management Frameworks	15	Mandatory	1,2,6,9,10
7	7061MAA	Management of Quality	15	Mandatory	2,5,10
7	7163MAA	Project Management Information Systems	15	Mandatory	1,2,4,6,7,8,10
7	7060MAA	Contract Management	15	Mandatory	3,5,8,10
7	7056MAA	Strategic International Project Management	20	Mandatory	1,2,4,5,6,8,10
7	7051CRB	Leading Strategic Change through Creativity and Innovation	10	Mandatory	2,4,7,10
7	7164MAA	Research Methods and Project Proposal	10	Mandatory	1,9,10
7	7030MAA*	Masters Dissertation	50	Mandatory	1,2,3,4,5,6,9,10

*The dissertation module is the last module to be taken

Work Placement

During semester 1, students who have expressed an interest in undertaking a work placement should begin the application process for placement opportunities. Students have the responsibility for securing a placement, but they will be supported throughout the application process by a specialist employer engagement team. The university will work with employers to identify opportunities. Subject to securing a placement, the International Student Support team will work with international students to obtain UK study visa extensions. Visas required to work in other countries will be the responsibility of the student.

The course is structured so that students complete two semesters of taught modules and then spend three semesters on placement. During this time students would be enrolled onto modules 7102CEM Extended Masters Work Placement A, 7103CEM Extended Masters Work Placement B and 7104CEM Extended Masters Work Placement C. The modules are zero credit and do not contribute to the classification or name of the award but must be passed to complete the placement. Upon completion of the work placement, students are expected to return to Coventry to complete the final semester during which time they undertake their project module. Successful completion of the Work Placement is reflected in the final student transcript.

Credit level	Module Code	Title	Credit Value	Mandatory/ Optional	Course Learning Outcomes		
Subject to securing an appropriate placement opportunity and fulfilling the selection requirements, students will be transferred to the two-year course and the Work Placement modules listed below are to be taken							
7	7102CEM	Extended Masters Work Placement A	0	Optional			
7	7103CEM	Extended Masters Work Placement B	0	Optional			
7	7104CEM	Extended Masters Work Placement C	0	Optional			

The work placement is to be taken over three semesters and prior to the final semester of the course

Cascade of Awards:

The requirements for progression and awards:

Awards for Taught Masters programmes may be made with Distinction or with Merit as per the Academic Regulations.

MSc Engineering Project Management \downarrow Post Graduate Diploma in Engineering Project Management \downarrow Post Graduate Certificate in Engineering Project Management \downarrow Post Graduate Certificate (Unnamed Award)

The requirements for each of the awards listed are:

- MSc Engineering Project Management: the full curriculum (180 credits). Students must successfully pass all taught modules including 7030MAA to be eligible for the award.
- **PgDip in Engineering Project Management:** 120 credits from the programme specification to include 7017MAA, 7056MAA, 7057MAA & 7058MAA.
- **PgCert Engineering Project Management** 60 credits from the programme specification, to include 7017MAA, 7057MAA and 7058MAA.
- PgCert Unnamed: 60 credits, but not including 7056MAA and 7058MAA.

CMI Certificate:

Students who successfully complete the module and meet the CMI learning outcomes will gain a Level 7 Certificate in Strategic Management and Leadership Practice based on the following CMI units: Developing Organisational Strategy (Unit 704); Leading Strategic Change (unit 705).

Students who successfully complete this module will be awarded Foundation Chartered Manager status and be able to use the designation 'fCMgr' after their name.

15 Criteria for Admission and Selection Procedure

An applicant for the programme will normally be expected to possess at least one of the following:

- a minimum of an Upper Second class honours degree.
- a lower qualification plus appropriate and relevant experience at a professional level.
- satisfactory independent evidence of working for several years in a position that would normally be occupied by an honours graduate, in a relevant area, which would lead to gaining benefit from the course.

Students whose first language is not English must demonstrate proficiency in the English language equivalent to IELTS 6.5. Alternatively students may be admitted with IELTS 6.0 if they attend a compulsory pre-sessional English course, operated by Coventry University, before joining their Masters programme.

Applicants who do not have the above entry requirements will still be considered on their individual merits where alternative and additional evidence of aptitude, such as extensive practical experience is evident via the university RPEL/RPL policy. Admissions tutors can offer further advice on this.

Recognised Prior Learning (RPL) and Accreditation for Recognised Prior Experiential Learning (RPEL) will only be awarded for achievements equivalent to Masters' level. Module exemptions can be awarded with evidence that the module outcomes have been achieved through previous study or experience at the discretion of the Course Director.

16 Academic Regulations and Regulations of Assessment

This course conforms to the standard <u>University Regulations</u> Mode R.

17 Indicators of Quality Enhancement

The QAA's Higher Education Review undertaken in February 2015 confirmed that Coventry University meets the UK expectations regarding the:

- setting and maintenance of the academic standards of awards
- quality of student learning opportunities
- quality of the information about learning opportunities
- enhancement of student learning opportunities

This Engineering Course has been designed in accordance with the:

- QAA Engineering Subject Benchmark statement [February 2015]
- UK Standards for Professional Engineering Competence [Third Edition]
- Engineering Council Accreditation of Higher Education Programmes

The School of Mechanical, Aerospace and Engineering Project Management

- The MSc Engineering Project Management course sits within the School of Mechanical, Aerospace and Engineering Project Management.
- The School works closely with the Association for Project Management and other professional bodies who inform on the curriculum.
- The School engages in a wide variety of research and attracts governmental and industry funding
- The School engages with industry through advisory boards to inform curriculum design

18 Additional Information

Enrolled students have access to additional key sources of information about the course and student support. This information can be found in:

- Student Handbook
- Course Handbook
- Module Guides
- A Course & Module Webs
- Module Information Directory
- EEC Student Portal <u>https://share.coventry.ac.uk/students/EC/Pages/Home.aspx</u>
- Coventry University Student Portal <u>https://share.coventry.ac.uk/students/Pages/Index.aspx</u>