Royal Holloway, University of London
Course specification for a postgraduate award
MSc in Engineering Management (January) (3563)

Section 1 – Introduction to your course

This course specification is a formal document, which provides a summary of the main features of your course and the learning outcomes that you might reasonably be expected to achieve and demonstrate if you take full advantage of the learning opportunities that are provided. Further information is contained in the College prospectus, and in various handbooks, all of which you will be able to access online. Alternatively, further information on the College's academic regulations and policies can be found here. Further information on the College's Admissions Policy can be found here.

The course will recruit students with a first degree in Science, Engineering, Technology or Management fields of study, who wish to find employment in a range of management roles within the engineering sector, particularly in those markets which are or are likely to experience rapid expansion over the coming years. The course provides students with essential knowledge, skills and tools to enter into and build successful senior management careers in engineering management, right across the engineering and manufacturing sectors, science-based industries, and high tech manufacturing.

The Master's course is delivered over one year of full-time study (52 weeks) and assumes that students will be resident in the UK for this period. As the course assumes no prior familiarity with the diversity of systems around the world, it includes some elements which are introductory. Students study alongside those working on courses on project management, supply chain management and media management.

While Royal Holloway keeps all the information made available under review, courses and the availability of individual modules, especially optional modules are necessarily subject to change at any time, and you are therefore advised to seek confirmation of any factors which might affect your decision to follow a specific course. In turn, Royal Holloway will inform you as soon as is practicable of any significant changes which might affect your studies.

The following is brief description for some of the most important terminology for understanding the content of this document:

Degree course – Also referred to as 'programme', this term refers to the qualification you will be awarded upon successful completion of your studies. 'Courses' were formerly known as 'programmes' at Royal Holloway.
Module – This refers to the credits you will study each year to complete your degree course. Postgraduate taught degrees at Royal Holloway comprise 180 credits. On some degree courses a certain number of optional modules must be passed for a particular degree title. 'Modules' were formerly known as 'course units' at Royal Holloway.

Section 2 – Course details			
Date of specification update	April 2022	Location of study	Central London Campus
Course award and title	MSc in Engineering Management (January)	Level of study	Postgraduate
Course code	3563	Year of entry	2022/23
Awarding body	Royal Holloway, University of London		
Department/ School	Electronic Engineering/ School of Engineering, Physical and Mathematical Sciences	Other departments or schools involved in teaching the course	N/A
Mode(s) of attendance	Full-time	Duration of the course	One year (52 weeks) full-time
Accrediting Professional, Statutory or Regulatory Body requirement(s)	N/A	For queries on admissions:	study@royalholloway.ac.uk
Link to Coursefinder for further information:	https://www.royalholloway.ac.uk/studying-here/		

Section 3 – Degree course structure				
3.1 Mandatory module information **The following table summarises the mandatory modules which students must take in each year of study**				
Module code	**Module title**	**Credits**	**FHEQ level**	**Module status (see section 6)**
EE5000J	Project by Dissertation	60	7	MNC
EE5001J	Project and Programme Management	30	7	MC
EE5004J	Technology Innovation and Change Management	30	7	MC
EE5005J	Professional Practice	15	7	MC
EE5010J	Research Methods	15	7	MC
EE5006J	Engineering Supply Chain and Logistics	15	7	MC
EE5007J	Global Engineering	15	7	MC

This table sets out the most important information for the mandatory modules on your degree course. These modules are central to achieving your learning outcomes, so they are compulsory, and all students on your degree course will be required to take them. You will be automatically registered for these modules. Mandatory modules fall into two categories; 'condonable' or 'non-condonable'.

In the case of mandatory 'non-condonable' (MNC) modules, you must pass the module to successfully graduate with a particular degree title, or before you can proceed to the next year of your course where studying part-time. In the case of mandatory 'condonable' (MC) modules, these must be taken but you can still progress or graduate even if you do not pass them (see Academic Regulations on condonable fails). Please note that although Royal Holloway will keep changes to a minimum, changes to your degree course may be made where reasonable and necessary due to unexpected events. For example; where requirements of relevant Professional, Statutory or Regulatory Bodies have changed and course requirements must change accordingly, or where changes are deemed necessary on the basis of student feedback and/or the advice of external advisors, to enhance academic provision.

3.2 Optional modules

In addition to mandatory modules, there will be a number of optional modules available during the course of your degree. The following table lists a selection of optional modules that are likely to be available. However, not all may be available every year. Although Royal Holloway will keep changes to a minimum, new options may be offered or existing ones may be withdrawn. For example; where reasonable and necessary due to unexpected events, where requirements of relevant Professional, Statutory or Regulatory Bodies (PSRBs) have changed and course requirements must change accordingly, or where changes are deemed necessary on the basis of student feedback and/or the advice of External Advisors, to enhance academic provision.There may be additional requirements around option selection, please contact the department of Electronic Engineering and department of Computer Science for further information.

Optional modules.

Module Title	Credits	Module Title	Credits
N/A			

3.3 Optional module requirements

There are no optional modules on this degree course.

Section 4 - Progressing through each year of your degree course

For further information on the progression and award requirements for your degree, please refer to Royal Holloway's Academic Regulations.

All postgraduate taught students are required to take and pass the non-credit bearing Moodle-based Academic Integrity module SS1001 in order to be awarded. The pass mark for the module assessment is stated in the on-line Academic Integrity Moodle module. Students may attempt the assessment as often as they wish with no penalties or capping. Students who otherwise meet the requirements for award as stipulated in the College's Postgraduate Taught Regulations (Section 15: Consideration and classification of candidates for the award) but fail to pass the Moodle-based Academic Integrity module will not be awarded.

The course consists of mandatory taught modules to the value of 120 Credits and a dissertation (60 credits), comprising of 180 credits in total. The course will also include a number of external-speaker seminars. Students are assessed and examined on the credit bearing modules only. The course also includes elements which are mandatory but are non-credit bearing and any assessment for these elements does not count towards the degree average.

The course structure for the PGDip is as below, with the exception that students will not undertake the dissertation. PG Cert students take taught modules to the value of 60 credits.

Progression throughout the year/s is monitored through performance in oral presentations, contributions to seminar discussion and coursework. Please note that if you hold a Student Visa and you choose to leave (or are required to leave because of non-progression) or complete early (before the course end date stated on your CAS), then this will be reported to UKVI.

Section 5 – Educational aims of the course

The aims of the course are:
- To allow students to develop an understanding of technological and engineering management techniques in order to provide individuals with strategic capabilities to accept broader and responsible roles, both technical, managerial and strategic, within a continuous evolving change environments;
- To enable students to develop a critical, selective and confident approach to the integration of knowledge domains and practical skills to resource, operate, manage, implement and change strategic objectives for engineering and technology;
- To enable students to understand the management role in the investigation, implementation, adoption and operation of engineering and service systems for efficiency, cost effectiveness and operational quality utilisation of organisational resources;
- To provide the necessary knowledge and understanding of the major forces influencing all engineering and manufacturing businesses today, namely the management of business ethics, corporate social responsibility and sustainability;
- To provide training in business research techniques and methods in the field of study;
- To provide the analytical skills and confidence for the writing of insightful, professional business reports to senior management to aid strategic planning and implementation in the organisation.
- To foster an independent learning ability and an enquiring mind required for continuing professional development;
- To equip students with an impressive range of sector-specific practical tools and skills that are applicable in industry alongside wider transferable skills.

Section 6 – Course learning outcomes
In general terms, the courses provide opportunities for students to develop and demonstrate the following learning outcomes. (*Categories – Knowledge and understanding (K), Skills and other attributes (S), and Transferable skills (*)*)

1. Comprehensive understanding and ability to apply theoretical and practical knowledge and understanding of various strategic, human centric, organisational, operational, and corporate factors influencing the initiation and governance of global projects and programmes while applying relevant methods and techniques (K) (S);

2. Full knowledge of the characteristics and trends for adoption of technological and digital innovation and evaluate the implications for technical, strategic, and change management challenges within organisations (K);

3. Knowledge and understanding of the advanced principles underpinning engineering supply chains and potential impacts on engineering and service based global logistics activities within an expanding and evolving international markets. (K);

4. Application of advanced understanding and implementation practices for global environmental and sustainability, and its relevance to all industries and government policies subject to different regulatory frameworks and policies (K);

5. Fully understand the global engineering and digital framework, and the strategic implications of digital technologies for existing and new start-ups within all engineering and service-based industries (K);

6. Fully understand the methods and tools of Technology Integration R&D teams integrating rapid technological advance, new product development and the ability to enter markets on time with products robust to market context (K) (*);

7. The ability to critically analyse, interpret, utilise tools, findings and research while able to develop own approaches and practices within wider field of technology, operations and engineering management, (S);

8. The ability to conduct management, organisational, and research studies independently at an advanced level using traditional and electronic resources while presenting to both technical and non-technical audiences (S);

9. The ability to further develop skills of reflection on reading and learning, and skills in information handling and retrieval, with independent presentation of logical and coherent written and oral arguments (S); *

10. To enhance interpersonal skills and collaborative teamwork, involving recognising and respecting the viewpoints, and interacting constructively with other people (S); *

11. The ability to organise and interpret complex data and information through structured and systematic way, and to comprehend and develop sophisticated concepts (S)*

12. Enhanced time management and organisational skills including working to deadlines, prioritising tasks, organising work-time (S).*

Section 7 - Teaching, learning and assessment

Teaching and learning is mostly by means of formal but interactive lectures, seminar discussions, oral presentations, in-class and engineering management related problem-solving exercises, guided independent research, coursework essays, and a dissertation on management in engineering and related practice. The basic strategies are to nurture the interest and enthusiasm of the students for the field, to embed the student in frontier knowledge in the field, to develop the students' critical and communication skills and to develop analytical, research, creativity and innovative problem-solving skills. Assessment of knowledge and understanding is typically made by coursework essays, examinations and a dissertation which integrates and crystallises knowledge and understanding across the domains in the field to attain business and/or analytical objectives. Full details of the assessments for individual modules can be obtained from the Department of Electronic Engineering

Section 8 – Additional costs

There are no single associated costs greater than £50 per item on this degree programme.

These estimated costs relate to studying this particular degree course at Royal Holloway. General costs such as accommodation, food, books and other learning materials and printing etc., have not been included, but further information is available on our website.

Section 9 – Indicators of quality and standards

QAA Framework for Higher Education Qualifications (FHEQ) Level	7

Your course is designed in accordance with the FHEQ to ensure your qualification is awarded on the basis of nationally established standards of achievement, for both outcomes and attainment. The qualification descriptors within the FHEQ set out the generic outcomes and attributes expected for the award of individual qualifications. The qualification descriptors contained in the FHEQ exemplify the outcomes and attributes expected of learning that results in the award of higher education qualifications. These outcomes represent the integration of various learning experiences resulting from designated and coherent programmes of study.

QAA Characteristics Statement (Master's Degrees) – September 2015	https://www.qaa.ac.uk/en/quality-code/supporting-resources

Subject benchmark statements provide a means for the academic community to describe the nature and characteristics of courses in a specific subject or subject area. They also represent general expectations about standards for the award of qualifications at a given level in terms of the attributes and capabilities that those possessing qualifications should have demonstrated.

Section 10 – Further information

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 when taking full advantage of the learning opportunities that are available. More detailed information on modules, including teaching and learning methods, and methods of assessment, can be found via the online module catalogue. The accuracy of the information contained in this document is reviewed regularly by the university, and may also be checked routinely by external agencies.

Your course will be reviewed regularly, both by the university as part of its cyclical quality enhancement processes, and/or by your department or school, who may wish to make improvements to the curriculum, or in response to resource planning. As such, your course may be revised during the course of your study at Royal Holloway. However, your department or school will take reasonable steps to consult with students via appropriate channels when considering changes. All continuing students will be routinely informed of any significant changes.

Section 11 – Intermediate exit awards (where available)

You may be eligible for an intermediate exit award if you complete part of the course as detailed in this document. Any additional criteria (e.g. mandatory modules, credit requirements) for intermediate awards is outlined in the sections below.

Award	Criteria	Awarding body
PG Diploma	Passes in at least 120 credits, with fails of between 40% to 49% for up to 40 credits condonable (with the exception of any course specific requirements)	Royal Holloway and Bedford New College
PG Certificate	Passes in at least 60 credits with no condonable fails	Royal Holloway and Bedford New College

Section 12 - Associated award(s) with Banner Codes

MSc Engineering Management (3563)	PG Diploma in Engineering Management (3471) PG Certificate in Engineering Management (3472)