

**Royal Holloway, University of London**  
**Course specification for a postgraduate award**  
**ENGINEERING MANAGEMENT (3470)**

**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 University prospectus, and in various handbooks, all of which you will be able to access online. Alternatively, further information on the University's academic regulations and policies can be found [here](#). Further information on the University's Admissions Policy can be found [here](#).

Your degree course in Engineering Management provides progressive structures in which you will be able to gain ever-wider knowledge and understanding, and appropriate skills. The course is focussed on the niche area of cyber security which impacts all industries due to the rapid expansion of the digitalisation of business. 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.

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 a 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 2024                                                                                                  | Location of study                                            | Central London                                                                                          |
| Course award and title                                                | MSc in Engineering Management                                                                               | Level of study                                               | Postgraduate                                                                                            |
| Course code                                                           | 3470                                                                                                        | Year of entry                                                | 2026/27                                                                                                 |
| Awarding body                                                         | Royal Holloway, University of London                                                                        |                                                              |                                                                                                         |
| Department or 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 and part time                                                                                     | Duration of the course                                       | One year (52 weeks) full-time<br>Two to five years (104 – 260 weeks) part-time                          |
| Accrediting Professional, Statutory or Regulatory Body requirement(s) | N/A                                                                                                         |                                                              |                                                                                                         |
| Link to Coursefinder for further information:                         | <a href="https://www.royalholloway.ac.uk/studying-here/">https://www.royalholloway.ac.uk/studying-here/</a> | For queries on admissions:                                   | <a href="https://royalholloway.ac.uk/applicationquery">https://royalholloway.ac.uk/applicationquery</a> |

| Section 3 – Degree course structure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                             |         |            |                                                                               |
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| 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<br>(Mandatory Condonable MC or<br>Mandatory Non-Condonable MNC) |
| EE5000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Project by Dissertation                     | 60      | 7          | MNC                                                                           |
| EE5001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Project and Programme Management            | 30      | 7          | MC                                                                            |
| EE5004                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Technology Innovation and Change Management | 30      | 7          | MC                                                                            |
| EE5005                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Professional Practice                       | 15      | 7          | MC                                                                            |
| EE5010                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Research Methods                            | 15      | 7          | MC                                                                            |
| EE5006                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Engineering Supply Chain and Logistics      | 15      | 7          | MC                                                                            |
| EE5007                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Global Engineering                          | 15      | 7          | MC                                                                            |
| <p>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 each year. Mandatory modules fall into two categories: 'condonable' or 'non-condonable'.</p> <p>In the case of mandatory 'non-condonable' (MNC) modules, you must pass the module before you can proceed to the next year of your course, or to successfully graduate with a particular degree title. 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. 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.</p> |                                             |         |            |                                                                               |
| 3.2 Optional modules                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                             |         |            |                                                                               |
| <p>In addition to mandatory modules, there may be a number of optional modules available during the course of your degree. 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,</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                             |         |            |                                                                               |

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 for further information.

#### 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](#).

Progression throughout the year/s is monitored through performance in summative or formative coursework assignments. 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.

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 [Academic Taught Regulations](#) but fail to pass the Moodle-based Academic Integrity module will not be awarded.

#### 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 (\*)*)

| K (Know. & Und.)<br>S (Skills & Att.)<br>T (Transf. Skills) | Course Learning Outcome                                                                                                                                                                                                                                                                                                    |
|-------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| K / S                                                       | 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                                                           | Full knowledge of the characteristics and trends for adoption of technological & digital innovation & evaluate the implications for technical, strategic, & change management challenges in organisation;                                                                                                                  |
| K                                                           | 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                                                           | 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                                                           | 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 / T                                                       | 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;                                                                                               |
| S                                                           | 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                                                           | 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 / T                                                       | 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 / T                                                       | To enhance interpersonal skills and collaborative teamwork, involving recognising and respecting the viewpoints, and interacting constructively with other people                                                                                                                                                          |
| S / T                                                       | The ability to organise and interpret complex data and information through structured and systematic way, and to comprehend and develop sophisticated concepts.                                                                                                                                                            |
| S / T                                                       | Enhanced time management and organisational skills including working to deadlines, prioritising tasks, organising worktime.                                                                                                                                                                                                |

## Section 7 - Teaching, learning and assessment

Teaching and learning on your course is closely informed by the active research of staff, particularly in the areas of Electronic Engineering. In general terms, the course provides an opportunity for you to develop and demonstrate the learning outcomes detailed herein.

Teaching and learning is mostly by means of formal but interactive lectures, seminar discussions, oral presentations, lab work, in-class and project management related problem-solving exercises, guided independent research, coursework essays, and a dissertation on management in information security project management 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 will be performed through summative coursework in the form of essays, examinations, and a dissertation.

Contact hours come in various forms and may take the form of time spent with a member of staff in a lecture or seminar with other students. Contact hours may also be laboratory or, studio-based sessions, project supervision with a member of staff, or discussion through a virtual learning environment (VLE). These contact hours may be with a lecturer or teaching assistant, but they may also be with a technician, or specialist support staff.

The way in which each module on your degree course is assessed will also vary. Assessments designated as 'summative' will receive a mark which will count towards your overall mark for the module, and potentially your degree classification, depending on your year of study. On successful completion of the module, you will gain the credits listed.

More detailed information on modules, including teaching and learning methods, and methods of assessment, can be found via the online [Royal Holloway Curriculum 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.

## Section 8 – Additional costs

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

**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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| <b>QAA Framework for Higher Education Qualifications (FHEQ) Level</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 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 courses of study. |                                                                                                                                             |
| <b>QAA Subject benchmark statement(s)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <a href="http://www.qaa.ac.uk/quality-code/subject-benchmark-statements">http://www.qaa.ac.uk/quality-code/subject-benchmark-statements</a> |
| 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– 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 |