

Royal Holloway, University of London
Course specification for a postgraduate award
MSc Information Security (1221)

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](#).

Your degree course in Information Security provides progressive structures in which you will be able to gain ever-wider knowledge and understanding, and appropriate skills. The two mandatory modules introduce you to the various ways in which different organisations solve problems of security management and how computer systems are made secure. Building on the core modules, the optional courses introduce a wider range of techniques and assess their suitability for specific roles. Research skills are developed to a professional level through the design, execution and written report of an independent research project, which also serves to integrate knowledge and skills acquired throughout the programme.

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	November 2023	Location of study	Egham
Course award and title	MSc Information Security	Level of study	Postgraduate
Course code	1221	Year of entry	2024/25
Awarding body	Royal Holloway, University of London		
Department or school	EPMS/ISG	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 Two to five years (104 - 260 weeks) part-time
Accrediting Professional, Statutory or Regulatory Body requirement(s)	National Cybersecurity Centre (NCSC)		
Link to Coursefinder for further information:	https://www.royalholloway.ac.uk/studying-here/	For queries on admissions:	https://royalholloway.ac.uk/applicationquery

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 (Mandatory Condonable MC or Mandatory Non-Condonable MNC)
IY5501	Security Management and Methods	30	7	MC
IY5502	Cryptography and Security Mechanisms	30	7	MC
IY5500	Project	60	7	MNC
<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 will 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, 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.</p> <p>You must choose options to the value of 60 credits from the list of modules offered by the Department. You must take at least 30 credits of optional modules in your second term.</p>				

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 [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.

Part-time delivery - students will normally complete IY5501 Security Management and Methods and 30 credits of optional modules in the first year of study. In the second year of study, students normally complete IY5502 Cryptography and Security Mechanisms, alongside 30 credits of optional modules and IY5500 Project.

Block-mode delivery - students will normally complete one mandatory module (either IY5501 or IY5502) and at least one 15 credit optional module the first year of study. In the second year, they normally complete the remaining mandatory module (either IY5501 or IY5502) and one other 15 credit optional module. You will continue to take the remaining 30 credits of optional modules in Years 3 and 4 of your degree. The IY5500 Project will be completed at any time after having passed IY5501 and IY5502 from Year 3 onwards.

Section 5 – Educational aims of the course

The aims of this course are to:

- Provide a systematic understanding of the technical, legal, commercial and social aspects of information security supported by research staff and recognised security experts from industry.
- Equip students with a systematic comprehension of current strategies, methodologies and techniques in information security.
- Enable students to identify the main security issues in the development of digital business activities.
- Allow students to critically review the current problems in information security and their countermeasures.
- Provide a strong foundation for a professional career as a security expert in business or commerce.

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 (*)*)

<ul style="list-style-type: none"> • Critically discuss the essential concepts, methods and approaches in information security (K) • Articulate the technical, legal, commercial and social issues that need to be addressed when assessing information security needs (K) • Appraise computer systems, networks, architectures and processes to identify potential security risks. (S) 	<ul style="list-style-type: none"> • Develop and apply countermeasures for new security issues as they arise. (S) • Reflect in writing and speech the results of research clearly and systematically in a manner comprehensible to a non-expert (*) • Demonstrate independent learning and scholarship necessary for continuing professional development (*)
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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 Information Security. 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 lectures; seminars, study groups and guided independent study. Assessment of knowledge and understanding is typically by formal examinations, coursework, oral presentations and the dissertation or long essay. In addition, students may be involved in workshops and may produce various forms of work.

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, however, for the assessments listed as 'summative', you will receive a mark for it 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. 'Coursework' might typically include a written assignment, like an essay. Coursework might also include a report, dissertation or portfolio. 'Practical assessments' might include an oral assessment or presentation, or a demonstration of practical skills required for the particular module

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, such as the Quality Assurance Agency (QAA).

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	
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 courses of study.	
QAA Subject benchmark statement(s)	http://www.qaa.ac.uk/quality-code/subject-benchmark-statements
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