



**UNIVERSITY  
OF LONDON**

Postgraduate programmes in

# Information Security 2020

Academic direction by

[london.ac.uk/infosec](https://london.ac.uk/infosec)



**ROYAL  
HOLLOWAY  
UNIVERSITY  
OF LONDON**

# Join the World Class

## 1 **A mark of excellence**

Gain a University of London degree and increase your potential career development in information security-related fields.

## 2 **Quality of learning**

The programmes in this leaflet are developed by academics at Royal Holloway, one of the world's leading centres for information security.

## 3 **Worldwide relevance**

You will benefit from the commercially relevant knowledge of Royal Holloway's academics, with content that includes computer security, digital forensics and human aspects of security.

## 4 **Access a wealth of resources**

You receive comprehensive study materials written and presented by subject experts at Royal Holloway, as well as access to online resources.

## 5 **Flexible learning**

With no travel, relocation or accommodation costs, studying through the University of London is much more affordable than coming to London to study on campus. What's more, you can continue working full time.



“In a fast changing environment of worldwide access to higher education, a University of London degree continues to offer a guarantee of quality, value and intellectual rigour.”

**Professor Wendy Thomson**  
Vice-Chancellor,  
University of London

# Your prestigious University of London qualification

## About your qualification

When you graduate with a degree, diploma or certificate from the University of London, you will receive two important documents – your Final Diploma (the parchment you receive on graduation) and a Diploma Supplement.

## The Final Diploma

- Indicates that you were registered with the University of London and awarded a University of London degree, diploma or certificate.
- Gives the name of Royal Holloway University of London that developed the syllabus and provided assessment.
- Features the University of London crest and the Vice-Chancellor's signature.

## The Diploma Supplement

- Describes the nature, level and content of the Information Security programme you successfully completed.
- Includes the transcript of courses taken, marks achieved and overall classification
- States the role of Royal Holloway and the method of study.

## Key dates

Application deadline  
**31 August 2020**

Registration deadline  
**30 September 2020**

Programme starts  
**1 October 2020**

Examinations take place  
**May 2020**

**A global reach  
with over 50,000  
students spanning  
180 countries  
worldwide**

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# Academic direction: Royal Holloway, University of London



**Dr Konstantinos Mersinas**  
Distance Learning Programme Director  
Royal Holloway

## A history of academic excellence

Royal Holloway enjoys an international reputation for the highest quality teaching and research across the sciences, arts and humanities.

The famous Founder's Building (pictured right) was officially opened by Queen Victoria in 1886. Since then, Royal Holloway has continued to grow in size and status, building on the excellence of its scholarship and the talents of its students.

Today, a combination of distinctive character, academic vision and membership of the University of London has established Royal Holloway among the top research-led university institutions in the country.



## Royal Holloway Information Security Group (ISG)

Royal Holloway, University of London, is home to the ISG, one of the largest academic security groups in the world. It brings together in a single institution expertise in education, research and practice in the field of Information Security.

The ISG offers an active research environment. It has a thriving PhD community and offers world-leading Master's and Postgraduate Diploma programmes (campus-based and online). The ISG also includes the Smart Card Centre of Excellence, which it founded with Vodafone and Giesecke & Devrient. In recognition of its work, the ISG received a prestigious Queen's Anniversary Prize for Higher and Further Education.

# Welcome to a world-renowned programme



**Professor Fred Piper**  
Founder and former Director, ISG  
Royal Holloway

## Introduction

Launched in 1992, Royal Holloway's MSc in Information Security was the first of its kind in the world. Since then, the number of degree programmes in the field has grown rapidly, usually concentrating either on academic research or specific topics, such as forensics. From the start, the Royal Holloway programme has covered the entire breadth of the subject: from the management of security, to computer crime, to cryptographic mechanisms and how they are used in the protection of computers and their networks.

Given our strength in depth across the programme and the active contribution of security professionals to its continuing review and

development, we are uniquely well placed to maintain the programme's relevance within a fast-paced industry.

The content of the distance learning MSc, launched in 2003, is broadly similar to that for campus-based students at Royal Holloway. Delivered online, you are fully supported by a Virtual Learning Environment (VLE) through which you can interact with tutors and fellow students worldwide. We look forward to welcoming you to our online security community.

In acknowledgement of his major contributions to Information Security, Professor Fred Piper was elected to the Infosecurity Europe 'Hall of Fame' in 2008. He has also been recognised as a Fellow of (ISC)<sup>2</sup>, the elite network of certified information security professionals.

## Certification of master's degrees in Cyber Security

Royal Holloway's MSc in Information Security was one of four UK master's degree programmes to receive full certified status by the UK Government Communication Headquarters (GCHQ) in 2014 as part of the UK Government's strategy to certify good cyber security education in the UK. The purpose of the certification was to help guide students and industry in their choice of degrees.

The UK National Cyber Security Centre (NCSC) now incorporates GCHQ and certifies both postgraduate and undergraduate degrees in Cyber Security. The NCSC website states: 'The successful degrees were judged to provide well-defined and appropriate content, delivered to the highest standard. Partnerships and a collaborative approach have been key throughout the process with the assessment of applicants based on the expert views of industry, academia, professional bodies, GCHQ and other government departments.'

For more information, please see the NCSC website: [ncsc.gov.uk/information/ncsc-certified-degrees](https://www.ncsc.gov.uk/information/ncsc-certified-degrees)

# Why study with us?

## Is the programme for you?

Our students come from a variety of backgrounds, ranging from new graduates through to senior security managers seeking a formal qualification in information security. Graduates of the programme can be found working as security professionals in a range of organisations, from large financial institutions to technology and research-oriented organisations.

To ensure that the programme is completely up to date, several modules involve substantial input from internationally recognised information security experts.

Furthermore, all academic staff have links with external organisations that are involved with information security and secure digital business.

In addition to the distance learning version, the programme is also available directly through Royal Holloway (full/part time, block mode, or as individual modules for continuing professional development).

## Flexible study

Studying at a distance allows you a high degree of flexibility. Generally, you can study whenever, wherever and however you choose.



- **Fits your continuing professional development needs.** You can study for either a full MSc or Postgraduate Diploma, or choose to take individual modules for your continuing professional development.
- **Fits your lifestyle.** You can fit your study around family and work commitments.
- **Fits your finances.** Your overall costs are substantially lower than if you came to London to study full time. You will have no travel, relocation or accommodation costs.
- **Fits with your location.** You can study anywhere and choose where you sit your exams.

## Information Security MOOC

In collaboration with online education provider Coursera, Royal Holloway has launched its 'Information Security: Context and Introduction' massive online open course (MOOC). The course enables learners to begin the journey into the study of information security and develop their appreciation of some key information security concepts. It also explores skills, knowledge and roles so that learners can evaluate potential career opportunities in this developing profession. To learn more, visit: [coursera.org/learn/information-security-data](https://coursera.org/learn/information-security-data)

# Programme structure

## Four compulsory core modules

An introduction to cryptography and security mechanisms

Computer security

Network security

Security management

## Plus two optional modules chosen from:

Advanced cryptography

Application security

Cybercrime

Digital forensics

Human aspects of information security and privacy

Security testing – theory and practice

Smart cards/tokens security and applications

## Plus (MSc only)

Project

## Assessment

You do not have to come to London to sit your exams as we have exam centres in more than 180 countries worldwide.

Modules are assessed by unseen written exam in May each year. For 'An introduction to cryptography and security mechanisms', assessment also includes coursework. The assessment of the project will also involve the submission of a written dissertation.

## Time commitment

For a single module, a reasonable expectation for study and exam preparation would be around 200 hours overall. For most students, a reasonable expectation for completion of the programme in the two-year minimum period would be to study around 20 hours per week during the academic session (September–May). You have between two and five years to complete the MSc, and between one and five years to complete the Postgraduate Diploma. Most students find that a three- or four-year programme of study fits with their family and work commitments.

If desired, modules can also be studied on the Royal Holloway campus in one-week blocks rather than via distance learning.



## Paul Schwarzenberger

United Kingdom

**'The degree has an excellent reputation in academia and industry worldwide, and it offers a wide range of options. I would certainly recommend this MSc to anyone wishing to gain a very well recognised information security qualification, to extend their knowledge in the subject, and enhance their professional career. As to the long-term benefits to my career, I now find myself dealing with far more senior people in our client companies.'**

# An innovative approach to learning



## Virtual Learning Environment (VLE)

The programme is offered online and is fully supported by a VLE, a virtual classroom that the University uses to deliver the content of the programme via the internet.

### The VLE will allow you to:

- access your study materials
- take part in discussions/seminars with your tutor and other students
- receive notices, seminar dates, project support and other programme-related information
- ask questions regarding the administration of the programme
- seek help for technical problems that you may encounter.

## Study materials

### When you register we will provide:

- a student handbook
- access to the Online Library where you can find *The Sciences Good Study Guide* and various reading materials to complement your studies
- a copy of the core textbooks
- a password and username to allow you to log on to the VLE.

## Study support

The VLE enables you to communicate with tutors and other students from around the world, share insights and support each other in the distance learning process.

You will discuss topics in tutored groups. You will also be able to contribute to the conferencing 'discussion' at the times that suit you best. All contributions are stored so that you can make reflective and considered contributions. You are also able to print out a permanent record of all discussions on a particular topic within your tutor group.

Most subjects include a variety of non-assessed coursework or quizzes to help you gauge your knowledge. You will also be expected to participate in virtual seminars periodically. At the start of each academic year, a schedule of seminars is posted on the VLE.

## Continuing Professional Education (CPE)

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CPE credits are earned through activities related to the information security profession, including the completion of higher academic courses. All of the compulsory core modules are also available to be studied as individual modules for the purposes of CPE. Upon the successful completion of each module, you will receive a University of London certificate.

Students who have completed the Postgraduate Diploma or MSc degree in Information Security may also register for further optional modules offered by the programme.

If you meet all the necessary entrance requirements, you may later apply to register for the MSc and gain credits for the modules you have already passed.

## David Lindsay Prize

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The British Computer Society Information Security Specialist Group awards the David Lindsay Prize for the dissertation that best addresses innovative applications of Information Security. All MSc projects in the area of Information Security are eligible for the prize. The final decision is made by the British Computer Society Information Security Specialist Group.





“My past and current employer would probably agree that having employees, especially in the information security and cyber security space sector, that have a recognised degree gives their company some standing and a comfort level in the industry.

Also, earning a degree from a prestigious institute is always nice to have on your resume. This programme allows for the perfect mix of work, home life and education.”

Jamie Rees  
Canada

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# Entrance requirements

## Academic

A Second Class honours degree, or the equivalent, in a relevant discipline (for example, computer science, electronics, information systems or mathematics) from a university or other institution acceptable to the University.

Alternatively, mature students with industry experience will be considered and are encouraged to apply.

## English language

A high level of competence in English is required. You may be required to pass (or to have passed within the last three years), at the appropriate level, a test of proficiency in English acceptable to the University. Mature students working in an English-speaking environment may be exempt from such a proficiency test.

## Individual modules for professional development

Students applying for individual modules should normally satisfy the entrance requirements for the MSc/Postgraduate Diploma. However, if you do not hold such qualifications, the University will



still consider your application. Upon successful completion of two individual modules, you will then be considered for entry to the Postgraduate Diploma or MSc degree programmes.

## Minimum PC specifications

### Hardware requirements:

- any recent laptop or desktop machine with speakers
- a broadband internet connection.

### Software requirements:

- Adobe Acrobat Reader (download latest version free from: [adobe.com](http://adobe.com))
- Flash Plug-in: Adobe Flash Player (download latest version free from: [adobe.com/products/flashplayer](http://adobe.com/products/flashplayer))
- a recent version of Microsoft Office or any compatible product, such as Open Office (Word, PowerPoint, Excel).

# How to apply and fees

## Stage 1

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Apply online via the course web pages at [london.ac.uk/infosec](http://london.ac.uk/infosec) as soon as possible, but no later than **31 August**.

Before making your application, please read:

- the 'How to apply' section: [london.ac.uk/applications](http://london.ac.uk/applications)
  - the 'Guidance notes for online applications (Postgraduate)': [bit.ly/PG-guidance-notes](http://bit.ly/PG-guidance-notes)
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## Stage 2

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We will acknowledge receipt of your application form and send you a student number to use as a reference whenever you contact the University. Everyone who applies is allocated a number.

## Stage 3

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We will notify you whether or not you have been accepted.

**Please note:** applications will only be considered when we have received all the necessary documentation, including the references, where applicable.

## Stage 4

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If your application is successful, we will send you:

- an offer of registration
  - instructions for completion of the payment and registration process
  - a link to the Regulations.
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## Stage 5

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Registration needs to be completed by **30 September\***. The programme starts on **1 October**.

\*If we have to limit the number of students who can register in any one year and we are not able to offer you a place for that year, we will make you an offer of registration deferred to the following year.

## Additional information

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If you have any questions about your application after you have applied to us, please contact:  
Tel: +44 (0)20 7862 8360  
[sid.london.ac.uk](http://sid.london.ac.uk)

## Fees

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The total fee payable to the University of London for 2020–2021 will be published on our website once confirmed. On average, fees incur a five per cent year-on-year increase. For the latest information on programme fees, please visit: [london.ac.uk/fees](http://london.ac.uk/fees)

**Please note:** student fees shown on our website are net of any local VAT, Goods and Services Tax (GST) or any other sales tax payable by the student in their country of residence. Where the University is required to add VAT, GST or any other sales tax at the local statutory rate, this will be added to the fees shown during the payment process. For students resident in the UK, our fees are exempt from VAT.



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