



## Machine Learning; (Taught); (MSc); 2626 September 2018 intake

The purpose of this information sheet is to provide prospective students and applicants further information about the nature of the degree, in order to help you decide if it is the choice for you. Should you have any further questions, contact information is provided at the end of the flyer.

### Section 1 – degree programme structure

|                                     |                                      |
|-------------------------------------|--------------------------------------|
| Awarding institution                | Royal Holloway, University of London |
| Accreditation(s) (where applicable) | None                                 |
| Standard length of degree           | 1 year full-time                     |
| Available part-time                 | 2 years part-time                    |

The following table summarises the compulsory modules, which are referred to by Royal Holloway as mandatory course units offered on this degree programme, as well as a selection of optional course units that are likely to be available. Please note that although the College will keep changes to a minimum, new units may be offered or existing units may be withdrawn, for example, in response to a change in staff. You will be informed if any significant changes need to be made. This programme requires a minimum of 6 students to enable to College to run the course. Should this number not be reached and we are unable to run the programme we will offer an alternative or refund any deposit paid.

| Course unit name   | Credits | Mandatory | Optional | Notes<br>(please see below for description) |
|--|---------|-----------|----------|---|
| ( CS5100) Data Analysis  | 20      | Yes       |          |   |
| (CS5810) Programming for Data Analysis   | 10      | Yes       |          |   |
| (CS5920) Machine Learning  | 10      | Yes       |          | 2   |
| (CS5200) On-line Machine Learning  | 20      | Yes       |          |   |
| (CS5950) Deep Learning   | 20      | Yes       |          |   |
| (CS5821) Individual Project  | 60      | Yes       |          |   |
| <b>Optional courses are chosen to complete each term to a total of 60 credits.</b> |         |           |          |   |
| (CS5855) Databases   | 10      |           | Yes      | 1   |
| (CS5234) Large-scale Data Storage and Processing                                   | 20      |           | Yes      |   |
| (CS5930) Methods of Computational Finance  | 10      |           | Yes      | 2   |
| (CS5580 Advanced Data Communications)  | 10      |           | Yes      | 2   |
| (CS5220) Fundamentals of Digital Sound and Music                                   | 10      |           | Yes      |   |
| (CS5945) Intelligent Agents and Multi-Agent Systems                                | 10      |           | Yes      |   |

|  |    |  |     |   |
|--|----|--|-----|---|
| (CS5945) Semantic Web  | 10 |  | Yes |   |
| (CS5504) Business Intelligence Systems, Infrastructures and Technologies | 20 |  | Yes |   |
| (CS5490) Computational Optimization                                      | 10 |  | Yes | 2 |
| (CS5110) Methods of Bioinformatics                                       | 10 |  | Yes | 2 |
| (CS5250) Visualisation and Exploratory Analysis                          | 20 |  | Yes | 2 |
| (CS5800) Computation with Data   | 10 |  | Yes | 2 |
| (EC5333) Financial Econometrics  | 20 |  | Yes |   |
| (EC5321) Investment and Portfolio Management                             | 20 |  | Yes |   |
| (EC5340) Fixed Income Securities and Derivatives                         | 20 |  | Yes |   |
| (EC5041) Microeconometrics   | 20 |  | Yes |   |
| (EC5070) Decision Theory and Behaviour                                   | 20 |  | Yes |   |
| (MT5432) Inference   | 20 |  | Yes |   |
| (MT5433) Topics in Applied Statistics                                    | 20 |  | Yes |   |
| (MT5436) Applied Probability   | 20 |  | Yes |   |
| (IY5522) Security Technologies   | 20 |  | Yes |   |
| (IY5502) Introduction to Cryptography                                    | 20 |  | Yes |   |
| (IY5511) Network Security  | 20 |  | Yes |   |
| (IY5512) Computer Security   | 20 |  | Yes |   |
| (IY5501) Security Management   | 20 |  | Yes |   |
| (IY5606) Smart Cards, RFIDs and Embedded Systems Security                | 20 |  | Yes |   |
| (IY5609) Digital Forensics   | 20 |  | Yes |   |
| (IY5610) Security Testing  | 20 |  | Yes |   |
| (IY5607) Software Security   | 20 |  | Yes |   |
| (IY5604) Database Security   | 20 |  | Yes | * |
| (IY5612) Cyber Security  | 20 |  | Yes |   |

### Notes

- (1) Compulsory and available only for students who lack background in the corresponding area.
- (2) Cannot be taken by Royal Holloway graduates who took a similar course.
- (\*) Only runs in block mode (normally one week in January).



## Section 2 – degree programme costs

|                               |         |
|-------------------------------|---------|
| H/EU tuition fee 2018/19*     | £10,400 |
| Overseas tuition fee 2018/19* | £19,000 |
| Other essential costs**       | None    |

\*The tuition fees given above apply to students enrolled on a full-time basis. Students studying part-time are charged a pro-rata tuition fee and information is available from [Student-Fees@royalholloway.ac.uk](mailto:Student-Fees@royalholloway.ac.uk). All fees are likely to rise annually in line with inflation but no more than 5% per year. The UK Government has announced that EU students starting an undergraduate or postgraduate taught degree in 2018/19 will pay the same level of fee as a UK student for the duration of their degree.

For further information, please see [Royal Holloway's Terms & Conditions](#).

\*\* These estimated costs relate to studying this particular degree programme at Royal Holloway. Costs, such as accommodation, food, books and other learning materials and printing etc., have not been included, and further information regarding these can be found on our website.

## Section 3 – useful vocabulary

We understand some of the terminology used in this document may be new to you, and may differ from that used by other universities. To help with this, we have provided a brief description for some of the most important terminology:

*Degree programme* – Also referred to as 'degree course' or simply 'course', these terms refer to the qualification you will be awarded upon successful completion of your studies.

*Course unit* – also referred to as 'module', this refers to the individual units you will study each year to complete your degree programme. Masters programmes consist of a number of taught course units – some mandatory, and some options – plus a dissertation/project to the value of 180 UK credits in total. On completion of a minimum of 120 UK credits a student may be awarded a Postgraduate Diploma, while on completion of a minimum of 60 credits a student may be awarded a Postgraduate Certificate. Some Masters programmes may have progression requirements (where they are offered over more than one year of study) or pass requirements for degree title if they are accredited by a professional body.

*H/EU* – Different categories of students pay different levels of tuition fees. H/EU stands for students with Home or European Union fee status.

*Overseas* – Non-EU students are liable to pay the overseas rate of tuition fees, and are sometimes also referred to as international students.

## Section 4 – contact information

If you have any further questions, you can contact the Admissions team by email at [study@royalholloway.ac.uk](mailto:study@royalholloway.ac.uk).

This information is final at the time of publication (05/09/2017) and supersedes any previous information provided in publications or on Royal Holloway's website.