Study with us

About your course

Course(s) covered

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>ECWCSM</td>
<td>Modular Masters Programme in Computer Science (online) – Data Science and Analytics</td>
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</table>

You can find full details of your course, module information and entry requirements in the *Programme Specification*.

Key facts

**Start dates:**
- Semester A intake: 21 September 2020
- Semester B intake: 18 January 2021

**Credits:**
- PGCert level: 60 credits (as the exit award only)
- PGDip level: 120 credits (as the exit award only)
- Master level: 180 credits

**How long it takes:**
- Full-time master level: 1 year for semester A intake or 16 months for semester B intake
- Part-time master level: 2-5 years (depending on individual study pace)

**Academic Year**

**2020-2021**

The University’s academic year is made up of 3 semesters.

- Semester A runs from Monday 21 September 2020 to Friday 15 January 2021
- Semester B runs from Monday 18 January 2021 to Friday 21 May 2021
- Semester C runs from Monday 24 May 2021 to Friday 17 September 2021

**Important points**

The MSc Data Science and Analytics award route is targeted at students who have a good Honours degree in Computer Science or a very closely related discipline, and who have decided upon a specialist career path or are aiming to enter a PhD programme in one of the specialisms on offer. Those studying for this award may concentrate on their chosen specialism and will be expected to complete a major project that is clearly situated within that specialism.

**The programme aims to provide students with the opportunities to:**

- build upon existing degree-level knowledge and practical experience;
- undertake a substantial programme of individual project work at postgraduate level;
- evaluate and further develop their skills in research, independent study and self-management, and prepare themselves for lifelong learning;
• develop an understanding of the social, legal and ethical context within which a computing professional is expected to operate, and of the standards that will be expected of them when they graduate;
• acquire the necessary skills to undertake further study or research at postgraduate level, and to secure employment in their chosen career
• develop awareness of current research and practice in data science and analytics;
• extend their knowledge and understanding of the fundamental mathematical ideas behind data science and relevant computational algorithms;
• extend their knowledge and understanding of the principles and practice of obtaining data from various sources, the essential methods for pre-processing and cleaning data, data analytics and modelling;
• apply and critically evaluate data analysis practices.

**IT Skills required:**

Basic IT skills are a requirement for anyone wishing to study online. For example, you will need to be confident using an internet browser, communicating via email and using Microsoft Office tools (e.g. Word, Excel) or equivalent. An ability to learn and adapt to new technologies is also important, for example, you may be asked to participate in a virtual classroom session, contribute to a discussion forum or complete an online assessment/test

**Outline Programme Structure**

The tables below are for guidance only. They provide the examples of the modules that students may choose to study for a full-time option (i.e. 60 credits per semester) for two semester entrants, respectively. The expectation for part-time study is up to 30 credits per semester.

Please note that Modules may not run every year and running semester might vary from year to year. You will receive an email prior to each semester to confirm the module availabilities and will be asked to complete a Module choice form.

### Semester A entry

<table>
<thead>
<tr>
<th>Core</th>
<th>Core</th>
<th>Core</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Foundations of Data Science (30 credits)</td>
<td>• Responsible Technology (30 credits)</td>
<td>• Data Science and Analytics Masters Project (60 credits)</td>
</tr>
<tr>
<td>• Machine Learning (30 credits)</td>
<td>• Data Mining (15 credits)</td>
<td>• Big Data Analytics (15 credits)</td>
</tr>
</tbody>
</table>

### Semester B entry

<table>
<thead>
<tr>
<th>Core</th>
<th>Study Break</th>
<th>Core</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Responsible Technology (30 credits)</td>
<td>• Foundations of Data Science (30 credits)</td>
<td>• Data Science and Analytics Masters Project (60 credits)</td>
</tr>
<tr>
<td>• Data Mining (15 credits)</td>
<td>• Machine Learning (30 credits)</td>
<td>• Big Data Analytics (15 credits)</td>
</tr>
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### Course delivery

This course is delivered 100% online via the University's virtual learning environment StudyNet. It can be studied flexibly, which allows you to fit your studies around your work and life commitments. However, there will be specific deadlines to submit or take assessments.
You will find full details on your assessment schedule in the relevant Module Guide which will be published at the start of the module.

Number of study hours will vary depending on your prior knowledge and experience with the subject. The expectation for a 15-credit module is 150 hours (equivalent to around 12 hours per week over 12 weeks).

**Method of assessment**

Modules are assessed by combination of coursework (including essay, design, development of software artifact, technical report, academic report, live presentation, peer review, teamwork, video log, live demonstration, viva) and online timed tests. The dates of assignment submission and online tests are fixed. The online tests are available for a fixed period of time, usually 24-hours, to ensure all students can find a convenient opportunity to complete them within that period.

If you cannot meet the assignment deadlines or test dates, you must inform the Module Leader in advance of the deadlines to get appropriate advice.

**Assessments – remote invigilation**

Our courses are specifically designed to make attending the University unnecessary, including attendance for the completion of tests. Some of our online tests may make use of third-party remote invigilation providers, also known as ‘remote proctors’. These services allow us to check your identity and invigilate online tests at a distance. Typically, there are no assessment costs for students, apart from circumstances where a student has not completed the booking process within the required notice period. In such circumstances costs can vary between £5 and £15 (GBP).

**Additional expenses**

You can find full details of your course tuition fees in the Fees and Finance Policy.

Courses materials (i.e. e-books, software or support materials) are usually included in your tuition fees, unless specified otherwise.

Postgraduate study requires extensive reading and access to reference works. Recommended texts are typically available in the University’s online library as eBooks. Students may wish or may be required to purchase their own copies of textbooks. The average cost of a recommended text is approximately £50 - £100. We currently estimate that the cost of expenditure on mandatory textbooks is between £200 and £400 per year, dependent on the pattern of modules students choose to study.

As part of your MSc project you may choose to purchase additional hardware or software.

**System requirements:**

To study Online, you will need access to a suitable computer and a good reliable Internet connection. Most modern PCs and Macs (less than five years old) should be fine. As a guide, you need a minimum of:

<table>
<thead>
<tr>
<th>Description</th>
<th>Mandatory/Optional</th>
<th>Estimated cost (UK prices 2016)</th>
</tr>
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<tbody>
<tr>
<td>Desktop or laptop computer</td>
<td>Mandatory</td>
<td>Starts at £250</td>
</tr>
<tr>
<td>Display (screen resolution 1024x768 minimum)</td>
<td>Mandatory</td>
<td>Starts at £50</td>
</tr>
<tr>
<td>Headset with microphone (built in if using laptop)</td>
<td>Mandatory</td>
<td>Starts at £15</td>
</tr>
<tr>
<td>Webcam (built in if using laptop)</td>
<td>Mandatory</td>
<td>£10-£50</td>
</tr>
<tr>
<td>Broadband Internet Connection (2mbps minimum)</td>
<td>Mandatory</td>
<td>Starts at £10/month</td>
</tr>
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Microsoft Office 365 account for the duration of your studies
The package will give you:
• Full, installed Office applications Word, Excel, PowerPoint, Outlook, Publisher, and OneNote on up to 5 PCs or Macs.

Provided by the University at no cost to students / FREE
- Office on tablets and phones for the Office experience on up to 5 tablets and 5 phones.
- Online versions of Office including Word, Excel, and PowerPoint.
- File storage and sharing with 1 TB storage.

Microsoft's DreamSpark
The University subscribes to Microsoft's DreamSpark. This gives students free access to loads of software from Microsoft.

Optional Provided by the University at no cost to students / FREE

Full system requirements details can be found on the Online Distance learning website: https://www.herts.ac.uk/study/online-distance-learning/how-online-study-works/system-requirements-for-study

Attendance to the UK Award Ceremony:
On completion of your programme of studies, you will have the opportunity to attend our UK Award Ceremony. When registering for the Ceremony you will receive 1 free graduate ticket for yourself.

Attendance to the UK Award Ceremony may incur additional costs i.e. guest tickets, travel and accommodation. The exact value of these costs will depend on when you will graduate and where you are travelling from.

Details regarding attendance to the Award Ceremony can be found on the website http://www.herts.ac.uk/ceremonies