UNIVERSITY OF LONDON

2022

Postgraduate programmes in

Computer Science

With academic direction from:

Birkbeck
UNIVERSITY OF LONDON

london.ac.uk/msc-computer-science

World class. Worldwide.

Join the World Class

1 Explore globally relevant areas of computing
This degree looks at issues that are important in our society, including intellectual property, digital surveillance, data privacy and ethical issues in computing, as well as the technical aspects of computer science, including system architecture, data management, cloud computing and software engineering.

2 Progress to a master's qualification
You can study the degree without having any prior knowledge in computer science. If you do not meet the entry requirements to join the MSc or PGDip, you can progress to the MSc or PGDip if you successfully complete the PGCert, which has more flexible entry requirements.

3 Showcase your learning with project-based coursework
You'll have the opportunity to undertake a substantive project to address a challenge within your own or a client organisation, allowing you to demonstrate problem-solving skills as well as technical expertise, which will provide a portfolio of work to present to current and potential employers.

4 Opportunities to take your career further
The MSc is valued by leading companies in the technology sector. You will gain in-demand technical skills plus knowledge of how to manage complex issues systematically and creatively in the workplace.

5 A mark of excellence
Earn an internationally recognised qualification from the University of London. The University has a track record of teaching, innovation and research dating back 160 years.

"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 Birkbeck, University of London as the Member Institution 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 programme you successfully completed.
- Includes the transcript of courses taken, marks achieved and overall classification.
- States the role of Birkbeck, University of London and the method of study.

Contents

Key dates

Applications and registration open:

01 December 2021

Applications close:

07 March 2022

Registrations close:

21 March 2022

Programme starts:

04 April 2022

A University of London degree from anywhere in the world

Dr Martyn Harris

Programme Director

We have seen the field of computer science grow at an astonishing rate, driven by advances in new technologies, research approaches, societal needs and industry.

Computer science is relevant to every single one of us, and is heavily integrated into our everyday lives. We have already seen many aspects of our personal lives influenced by new technologies, interfaces, and applications, and observed the impact, both good and bad, of these continued advances. Some of you may have experienced aspects of your work becoming more automated or technical, and most of us have witnessed the need for tighter regulation and control of some applications and systems.

Behind these advances are individuals, like yourself, who wanted to discover the opportunities that a knowledge of computer science could provide and wanted to take a step closer. This programme has been developed to deliver the necessary skills to gain expertise in a range of important topics in computer science. You will gain the necessary digital skills to develop your current role, change career, or even launch your own start up! Computer science is for everyone - we rely on many of its outputs on a daily basis, for instance e-commerce, social media, and cloud computing servers to back up our devices.

As our lives become more integrated with technology, all voices need to be heard in shaping the data, designing the algorithms and supporting the infrastructures that serve our society. My hope is that you will enjoy the process of learning, and consider how you might contribute to the field of computer science as we move forward together.

A trusted name in global education

The University of London is one of the world's leading universities, internationally recognised for its high academic standards.

This reputation is based on the outstanding teaching and research of our 17 Member Institutions.

Among former students are six Nobel Prize winners, including Nelson Mandela and Charles Kao, a pioneer in the development of fibre-optics. Graduates have made and continue to make significant contributions worldwide.

London made global

Founded in 1836, the University of London is one of the oldest and most prestigious universities in the UK and is internationally regarded as a centre of academic excellence. In 1858, we made our degrees available to study anywhere in the world.

Today, we have more than 50,000 students in over 180 countries, studying on 100-plus degrees, diplomas and certificates.

Delivered by experts in the field

Academic direction for the programme is from Birkbeck, University of London, which was founded in 1823 and joined the University of London in 1920.

The MSc has been developed by Birkbeck's highly regarded computing department. The Department of Computer Science at Birkbeck was one of the first computing departments established in the UK and a world-class centre of expertise in algorithms, data analytics, data management, experimental data science, knowledge representation, and programme verification.

The department engages in fundamental and applied research and hosts two research centres, Birkbeck Knowledge Lab and the Birkbeck Institute for Data Analytics. The Department of Computer Science at Birkbeck is also a member of the Institute of Coding (IoC) and has developed new courses to provide opportunities for everyone to acquire the necessary digital skills.

Gain knowledge of computer science in a global context

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The MSc Computer Science provides an intensive programme of study without any prior knowledge in computer science. As well as gaining a broad knowledge of the subject, students acquire practical skills and have the opportunity to investigate areas of current research more deeply.

For students who are new to the subject, the programme provides a foundation for a career in IT or software engineering. For those already working in these fields, you will have an opportunity to broaden your knowledge and upskill, while obtaining a formal qualification. You will gain in-demand technical skills plus knowledge of how to manage complex issues systematically and creatively in the workplace.

By studying this programme, you will:

- be able to demonstrate knowledge and acquire digital skills in a number of areas including programming principles, the mathematic and algorithmic foundations of computing, information systems design, and database design and management

- gain a comprehensive and practical understanding of current techniques

- gain the soft skills needed to be able to act autonomously in planning, implementing, and managing tasks at a professional level

- develop a systematic understanding and a critical awareness of computer science, much of it at the forefront of the discipline.

In some countries, qualifications earned by distance and flexible learning may not be recognised by certain authorities or regulators for the purposes of public sector employment or further study. We advise you to explore the local recognition status before your register.

How you study

The MSc Computer Science is offered fully online and allows you the opportunity to flexibly fit your studies around your schedule. You can choose to study individual modules on a pay-as-you-go basis and build up your qualification at your own pace.

This programme is designed for graduates who are new to computer science and would like to embark on a career in IT or software engineering, as well as being relevant to those already working in these roles who want to update their skills.

Each module is run over a 10-week block, with the exception of the Project module which is run over two 10-week blocks.

Programme structure

The MSc Computer Science consists of:

10 core modules (15 credits each); **and**

one Project module (30 credits)

The PGDip Computer Science consists of:

Eight modules (15 credits each)

The PGCert Computer Science consists of:

Four modules (15 credits each)

The following modules from the MSc Computer Science are available to study on a stand-alone basis, subject to module availability:

- Applied Machine Learning
- Cloud Computing
- Computer Systems
- Data Management
- Fundamentals of Computing

For further information on available modules, please visit: london.ac.uk/msc-computer-science

Online support

The programme is delivered online and there is no requirement to come to the UK as part of your studies. Our flexible online programme allows you to work around your own schedule and leads to a globally-recognised qualification.

When you register, we will create your Student Portal account. You can then access your University of London email account and other key resources including:

- The Virtual Learning Environment (VLE), which offers online learning support, access to the student café and discussion areas and other study materials.
- The Student Guide provides information that is common to all students and gives guidance on a range of issues relating to your study experience.
- The Online Library provides access to over 100 million academic electronic items comprising E-books, E-journals, conference proceedings etc. In addition, students can request items that are not held in the library via the library's Inter-Library loans service with the British Library.
- Senate House Library provides free reference access for all registered distance and flexible learning students.

Tutor support

All students receive online tutor support while studying this programme. Tutors introduce the modules, respond to queries, monitor discussions and provide guidance on assessments.

Study materials

All essential resources, activities, videos, discussions and support are provided through the VLE. This allows you to fit your studies around your work commitments. There is no need to purchase additional textbooks.

Time commitment

The flexible approach to learning allows students to complete the MSc in a minimum of two years (subject to module availability) to a maximum of five years.

You can study at your own pace, adjusting the intensity of learning to suit your needs.

Entrance requirements and further information

Entrance requirements

For the MSc and PGDip:

To qualify to register for the MSc or PGDip, applicants will need a bachelor's degree which is considered at least comparable to a UK second-class honours degree from an institution acceptable to the University.

For the PGCert:

If applicants do not meet the MSc and PGDip entrance requirements, successful completion of the PGCert will allow progression to the MSc or PGDip. To qualify to register for the PGCert, applicants will need:

Either, a bachelor's degree which is considered at least comparable to a UK second class honours degree from an institution acceptable to the University;

Or, a minimum of two years' work experience in a relevant field. This will most commonly be in a software engineering role but each application will be considered on a case-by-case basis.

For stand-alone individual modules:

To qualify to register for a stand-alone individual module, applicants will need:

Either, a bachelor's degree which is considered at least comparable to a UK second class honours degree from an institution acceptable to the University;

Or, a minimum of two years' work experience in a relevant field. This will most commonly be in a software engineering role but each application will be considered on a case-by-case basis.

English language requirements

You must satisfy the English language requirements for the programme. For more information on the requirements please visit: **london.ac.uk/applications/how-apply/english-requirements**

If you do not meet the English language proficiency requirements but believe that you can demonstrate the requisite proficiency, the University may, at its discretion, consider your application.

Computer requirements

The University of London sets minimum basic computer requirements because your study resources are accessed via the Student Portal and it is vital that you can access this regularly.

For this programme, you will need regular access to a computer with an internet connection to use the University of London's online resources and systems. A webcam may be required in the event that online timed assessments (if offered) are proctored, and in such a case, it is your responsibility to ensure that you have access to a webcam.

Additional hardware capabilities and software for specific modules will be required. Students will also need to create and use free accounts on several online services. For more information on specific requirements, please visit: **london.ac.uk/msc-computer-science**

How to apply

Please refer to the MSc Computer Science web pages for details on how to apply: **london.ac.uk/msc-computer-science**

Fees

The total fee payable to the University of London for 2022–2023 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**

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.

For further information on the range of programmes we offer, please visit our website (**london.ac.uk**) or contact us at:

The Student Advice Centre
University of London
Senate House, Malet Street
London WC1E 7HU
United Kingdom

Telephone enquires: **+44 (0)20 7862 8360**

Online enquiries: **sid.london.ac.uk**

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