Computer Science BSc

With its strong focus on solving real-world problems through problem-based learning, this BSc delivers world-class, industry-relevant teaching. The programme provides the essential material employers expect from a top-quality computer science graduate, and prepares you for employment in a wide variety of industries.

Key information

Programme starts
September 2019

Location
London, Bloomsbury

Degree benefits

// Our degree programmes are designed and taught by world-class researchers, ensuring our material is cutting-edge.

// Located in purpose-built accommodation, the department offers excellent laboratory and experiment facilities in a friendly and personal learning environment.

// Our location in the centre of London strengthens our close associations with industry and the financial sector, and offers you extensive opportunities for developing contacts with potential employers.

// The degree is part of an integrated programme which stretches across engineering. This allows you to broaden your horizons through interactions with other disciplines.

Accreditation

This programme has partial CEng accreditation, meeting the educational requirements for registration as an Incorporated Engineer and as a Chartered Engineer when presented with an accredited MSc. This programme is accredited by the BCS for the purpose of fully meeting the academic requirement for registration as a Chartered IT Professional and accredited by the BCS on behalf of the Science Council for the purpose of partially meeting the academic requirement for registration as a Chartered Scientist.

Degree structure

In each year of your degree you will take a number of individual modules, normally valued at 15 or 30 credits, adding up to a total of 120 credits for the year. Modules are assessed in the academic year in which they are taken. The balance of compulsory and optional modules varies from programme to programme and year to year. A 30-credit module is considered equivalent to 15 credits in the European Credit Transfer System (ECTS).

The structure of this three-year programme is based around a set of core modules, the aim of which is to cover the essential material required of all computer scientists, whatever their particular interest or specialisation. These modules address all the main strands of computer science: architecture, programming, theory, design and mathematics.

In the final year there is a substantial individual supervised project, and a choice of two advanced optional modules from a selection of areas.

In the second and third years alongside the main Computer Science content you take an Integrated Engineering Programme (IEP) minor, comprising one module in the second year and two modules in the third year. There are a number of minor subjects offered by UCL Engineering departments including: Entrepreneurship, Nanotechnology, Biomechanics, Management, Sustainable Building Design and Connected Systems. Alternatively, you can take the Intelligent Systems minor taught by Computer Science or you can learn a modern foreign language to an advanced level.

As the first two years of the BSc and MEng programmes are identical, if you start on the BSc programme you can apply to transfer to the MEng programme before the end of the second year provided you have demonstrated the required level of academic performance. Transfer to the MEng International Programme is also possible if you wish to apply to study abroad for a year.

YEAR ONE

Compulsory subjects

// Algorithms
// Compilers
// Design and Professional Practice
// Discrete Mathematics for Computer Scientists
// Integrated Engineering
// Object Oriented Programming
// Principles of Programming
// Theory of Computation

Optional modules

// All first-year modules are compulsory

YEAR TWO

Core or compulsory module(s)

// Logic and Database Theory
// Mathematics and Statistics
// Networking and Concurrency
// Security
// Software Engineering
// Systems Engineering

Optional modules

// IEP Minor Module I
Data taken from the 'Destinations of Leavers from Higher Education' survey undertaken by HESA looking at the destinations of UK and EU students in the 2013-2015 graduating cohorts six months after graduation.

**FINAL YEAR**

**Core or compulsory module(s)**
- Computational Complexity
- Computer Systems
- Individual Project

**Optional modules**
- IEP Minor Module II
- IEP Minor Module III
- You will also select credits from a wide range of optional modules. Options may include the following:
  - Artificial Intelligence and Neural Computing
  - Database and Information Management Systems
  - Functional Programming
  - Image Processing
  - Interaction Design
  - Networked Systems

**Your learning**

Modules usually last for one term and include a mixture of lectures, tutorials and lab classes. There is a focus on practical problem-based learning and group work. From the very first week you will be applying theory and working with others to solve real and challenging problems. Individual support is offered to all students through a personal tutorial system.

**Assessment**

All modules are assessed usually by individual or group coursework assignments and an unseen written examination at the end of the academic year. Student performance is continually monitored, and students wishing to progress to the MEng programmes must have demonstrated excellent academic performance by the end of the second year.

**Your career**

The strong practical and analytical skills developed during your studies will leave you well placed to meet the growing global demand for graduates in this fast-moving industry.

Our graduates have previously secured careers with global IT consultancies, as IT analysts with City of London banks and as IT specialists with manufacturing industries. As well as these pathways, the UCL Computer Science BSc will provide you with an excellent foundation for a broad spectrum of different careers.

First career destinations of recent graduates (2014-2015) of this programme include:
- Analyst, Deutsche Bank
- Graduate Analyst, The Royal Bank of Scotland (RBS)
- Technology Analyst, Goldman Sachs
- IT Engineer, Lenovo
- MPhil in Advanced Computer Science, University of Cambridge

**Your application**

Application for admission should be made through UCAS (the Universities and Colleges Admissions Service). Applicants currently at school or college will be provided with advice on the process; however, applicants who have left school or who are based outside the United Kingdom may obtain information directly from UCAS.

In addition to academic requirements, we are looking for you to demonstrate a proven interest in computing and a clear understanding of what studying computer science entails. We are keen to admit students with an interest in subjects that relate to applications of computer technology.

Applications are firstly assessed by UCL Admissions officers against the published entry criteria. Applicants with non-standard qualifications or applications from mature applicants are referred onto the Computer Science Admissions Tutor for review.
Entry requirements

**A LEVELS**


**GCSE**

English Language and Mathematics at grade C or 5. For UK-based students, a grade C or 5 or equivalent in a foreign language (other than Ancient Greek, Biblical Hebrew or Latin) is required. UCL provides opportunities to meet the foreign language requirement following enrolment, further details at: www.ucl.ac.uk/ug-reqs

**IB DIPLOMA**

*Standard Offer:* 40. A total of 20 points in three higher level subjects including grade 7 in Mathematics, with no score below 5.

*Contextual Offer:* 38. A total of 18 points in three higher level subjects including grade 7 in Mathematics, with no score below 5.

**CONTEXTUAL OFFERS – ACCESS UCL SCHEME**

As part of our commitment to increasing participation from underrepresented groups, students may be eligible for a contextual offer as part of the Access UCL scheme. For more information see www.ucl.ac.uk/prospectus

**OTHER QUALIFICATIONS**

UCL considers a wide range of UK and international qualifications for entry into its undergraduate programmes. Full details are given at: www.ucl.ac.uk/otherquals

**UNDERGRADUATE PREPARATORY CERTIFICATES (International foundation courses)**

UCL Undergraduate Preparatory Certificates (UPCs) are intensive one-year foundation courses for international students of high academic potential who are aiming to gain access to undergraduate degree programmes at UCL and other top UK universities.

Typical UPC students will be high achievers in a 12-year school system which does not meet the standard required for direct entry to UCL.

For more information see: www.ucl.ac.uk/upc.

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**TUITION FEES**

The fees indicated are for undergraduate entry in the 2019/20 academic year. The UK/EU fees shown are for the first year of the programme at UCL only. Fees for future years may be subject to an inflationary increase. The Overseas fees shown are the fees that will be charged to 2019/20 entrants for each year of study on the programme, unless otherwise indicated below.

// **UK & EU:** £9,250 (2019/20)

// **Overseas:** £29,220 (2019/20)

Full details of UCL’s tuition fees, tuition fee policy and potential increases to fees can be found on the UCL Students website.

**Additional costs**

If you are concerned by potential additional costs for books, equipment, etc. on this programme, please get in touch with the relevant departmental contact (details given on this page).

**FUNDING**

Various funding options are available, including student loans, scholarships and bursaries. UK students whose household income falls below a certain level may also be eligible for a non-repayable bursary or for certain scholarships. Please see the Fees and funding pages for more details.

**CONTACT**

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Department: Computer Science

**EU referendum**

For up-to-date information relating to specific key questions following the UK’s decision to leave the EU, please refer to: www.ucl.ac.uk/ucl-and-europe

**Disclaimer**

This information is for guidance only. It should not be construed as advice nor relied upon and does not form part of any contract. For more information on UCL’s degree programmes please see the UCL Undergraduate Prospectus at www.ucl.ac.uk/prospectus