COMPUTER SCIENCE BSc /
UCAS CODE: G400
2018 ENTRY

www.ucl.ac.uk/prospectus/compsci
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 2018

**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.

**Research Excellence Framework (REF) 2014**
The Research Excellence Framework, or REF, is the system for assessing the quality of research in UK higher education institutions. The 2014 REF was carried out by the UK's higher education funding bodies, and the results used to allocate research funding from 2015/16.

// 96% rated 4* (‘world-leading’) or 3* (‘internationally excellent’)

Learn more about the scope of UCL’s research, and browse case studies, on our Research Impact website.

**Degree structure**

In each year of your degree you will take a number of individual modules, normally valued at 0.5 or 1.0 credits, adding up to a total of 4.0 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 1.0 credit is considered equivalent to 15 credits in the European Credit Transfer System (ECTS).

The Computer Science MEng and BSc programmes share a common core for the first two years. The aim of the core modules is to cover the essential material required of all computer scientists, whatever their particular interest or specialisation. The core modules cover all the main strands of computer science: architecture, programming, theory, design and mathematics. Additionally, in the second year you choose a minor option from a wide selection available as part of the Integrated Engineering Programme (IEP) within UCL Engineering.

In your final year you will carry out an individual supervised project, and follow core modules in operating systems and computational complexity. In addition you will take optional modules selected from within the department, and continue to study electives from your chosen IEP minor option.

This degree is part of the IEP, a teaching framework that engages students in specialist and interdisciplinary activities designed to create well-rounded graduates with a strong grasp of the fundamentals of their discipline and a broad understanding of the complexity and context of computer science problems. Students engage in activities that span departments so the development of fundamental technical knowledge takes place alongside specialist and interdisciplinary research-based projects and professional skills. This creates degrees encouraging professional development, with an emphasis on design and challenging students to apply knowledge to complex problems.

As an IEP student, you are able to select a minor subject to study alongside your core and optional computer science modules in the second and third years. There are a large number of minor subjects available within UCL Engineering, which include, for example: Intelligent Systems, Entrepreneurship, Nanotechnology, Biomechanics, Management, Sustainable Building Design and Connected Systems.

**YEAR ONE**

**Compulsory subjects**

// Discrete Mathematics for Computer Scientists
// Integrated Engineering
// Principles of Programming
// Object-Oriented Programming
// Professional Engineering and Design
// Robotics Programming
// Theory I
// Theory II

**Optional modules**

// All first-year modules are compulsory

**YEAR TWO**

**Core or compulsory module(s)**

// Networking and Concurrency
// Compilers
// Logic and Database Theory
// Mathematics and Statistics
// Software Engineering and Human Computer Interaction
// Systems Engineering Project

**Optional modules**

// IEP Minor Module I
**FINAL YEAR**

<table>
<thead>
<tr>
<th>Core or compulsory module(s)</th>
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<tbody>
<tr>
<td>Computational Complexity</td>
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<tr>
<td>Operating Systems</td>
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<tr>
<td>Individual Project</td>
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**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
  - Computer Graphics
  - Database and Information Management Systems
  - Functional Programming
  - Image Processing
  - Interaction Design
  - Networked Systems

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**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 on to the MEng programmes must have demonstrated excellent academic performance by the end of the second year.

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**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 (2013-2015) of this programme include:

- IT Engineer, Lenovo
- Application Developer, J.P. Morgan
- Software Developer, Barclays
- Technology Analyst, Goldman Sachs
- Software Engineer, Cisco Systems

**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.

If your application demonstrates the academic profile and commitment to computer science we are looking for, you will be invited to a department open day where you can find out more about us and what it's like to study at UCL Computer Science.
Entry requirements

A LEVELS

Grades
A*AA

Subjects
Mathematics required.

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

Points
39 overall.

Subjects
A total of 19 points in three higher level subjects including grade 6 in Mathematics, with no score below 5.

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)

The 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.

TUITION FEES

The fees indicated are for undergraduate entry in the 2018/19 academic year. The UK/EU fees shown are for the first year of the programme at UCL only. The Overseas fees shown are the fees that will be charged to 2018/19 entrants for each year of study on the programme, unless otherwise indicated below.

- UK & EU: £9,250 (2018/19)
- Overseas: £25,960 (2018/19)

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

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/eu-referendum

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