Engineering and Architectural Design MEng /

This programme combines architectural knowledge and vision with a robust understanding of engineering for the built environment.

Key information

Programme starts
September 2020

Location
London, Hackney Wick (Here East) and London, Bloomsbury

Degree benefits

// Your learning will combine the design-studio model of UCL’s renowned Bartlett School of Architecture with project-based learning in structural, civil and environmental engineering and design, drawing on expertise from the Institute for Environmental Design and Engineering (IEDE) and UCL Civil, Environmental & Geomatic Engineering (CEGE).

// The programme is based both in central London and the new UCL Here East facilities at Queen Elizabeth Olympic Park, a state-of-the-art 4,000m² fabrication, experimentation, testing and study resource with cutting-edge labs fully equipped with digital and analogue fabrication facilities.

// The programme is designed to meet Engineering Council MEng and Architecture degree-level requirements.

// We are also actively seeking accreditation from the Joint Board of Moderators (JBM, which include IStructE and ICE), the Chartered Institute of Building Services Engineers (CIBSE) and Architecture Registration Board (RIBA/ARB) Part 1 exemption.

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 first three years will provide an integrated programme of teaching and learning across engineering and architecture.

In year one you will develop core mathematics and engineering knowledge and skills by taking seven compulsory modules, all carefully tailored to this programme.

From year two onwards, half of your time will be spent in the design studio, where you will develop skills in design and engineering synthesis, enhancing your ability to address design challenges and the built environment.

In your final year you will select two optional modules from a range depending on your particular areas of interest and the specialist skills and knowledge you wish to develop.

YEAR ONE

Core or compulsory module(s)
- Building Physics and Energy
- Building Physics and Environment
- Design Make Information
- Design Make Live
- History and Theory of Engineering and Architecture
- Materials, Mechanics and Making
- Mathematical Modelling and Analysis 1

Optional modules
- All first year modules are compulsory.

YEAR TWO

Core or compulsory module(s)
- Environmentally Responsible Building Systems
- Advanced Mathematical Modelling and Analysis
- Structural Analysis and Foundation Design
- Urban Physics
- Design Practice 1: Introduction to Building Design

Optional modules
- All second year modules are compulsory.

YEAR THREE

Core or compulsory module(s)
- Mechanics of Buildings
- Sense, Sensing and Controls
- Practice and Project Management
- Making Buildings
- Design Practice 2: In-depth Building Design

Optional modules
- All third year modules are compulsory
**FINAL YEAR**

Core or compulsory module(s)

- Design Practice 3: Advanced Building Design
- Dissertation

Optional modules

You will select two optional modules from a range of available modules, depending on your interests and the skills you wish to develop. Modules developed specifically for this programme are anticipated to include:

- Advanced Structural Design and Use of Parametric Modelling
- BIM and GIS for Design and Retrofit
- Tall Building Design
- Organisational Learning and Dispute Resolution
- Technology and Integration

**Your learning**

Your learning is predominantly design studio-based, and incorporates extensive use of fabrication workshops, engineering laboratories and London as a living lab, with a strong focus on engineering and architectural design and research-based learning. Methods include lectures, seminars, tutorials, individual and group work, site visits, field trips, workshops, laboratories, crits, and e-learning.

**Fieldwork**

There is one field trip (optional) annually as part of this programme. Maximum cost to the student is £500.

**Assessment**

Assessment is focused on coursework submissions, including engineering and architectural design portfolios, built prototypes and written submissions. This is supplemented by a range of further methods including formal examination, crits, studio and laboratory assessments, and e-assessments.

**Your career**

Students have the opportunity to acquire a broad base of knowledge and skills to meet the educational and professional standards for a successful career in engineering and architecture design.

You will learn to develop, articulate and advocate your own position and will also develop expertise in areas of particular interest via self-directed engineering design and research projects.

**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.

Eligible applicants are invited to submit sample images from their portfolio of creative work. Shortlisted candidates will be invited to interview with the portfolio. We will be looking for evidence of independent and innovative thinking, ability to draw and/or make, ability to challenge methods and norms, and to solve problems.
**Entry requirements**

**A LEVELS**

**Standard Offer:** AAA. No specific subjects.

**Contextual Offer:** ABB. No specific subjects.

**GCSE**

English Language at grade C or 5. Mathematics and Physics (or Double Award) at grade A or 7 if not offered at A level. 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](http://www.ucl.ac.uk/ug-reqs)

**IB DIPLOMA**

**Standard Offer:** 38 points. A total of 18 points in three higher level subjects, with no score below 5. Physics must be offered at either higher or standard level.

**Contextual Offer:** 34 points. A score of 16 points in three higher level subjects, with no score lower than 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](http://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](http://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](http://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:** £25,770 (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](http://www.ucl.ac.uk/). Please see the Fees and funding pages for more details.

**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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**Brexit**

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/brexit](http://www.ucl.ac.uk/brexit)

**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](http://www.ucl.ac.uk/prospectus).