BUILT ENVIRONMENT: ENVIRONMENTAL DESIGN AND ENGINEERING MSc / 2018/19 ENTRY

www.ucl.ac.uk/graduate/envirodes
This leading-edge programme, established before many in the built environment field were aware of greenhouse gases, has produced a stream of high-achieving graduates sought after by the biggest names in building design and the construction industry. We attract students from across the globe eager to find positions worldwide or to take relevant, cutting-edge thinking about sustainable building design back to their own part of the world.

Degree summary

The programme aims to develop students' knowledge and expertise in problem solving in the area of the built environment, and provide a framework for developing innovative thinking in the design and operation of buildings, placing associated environmental issues in a global, national and personal context.

The UCL Bartlett is the UK's largest multidisciplinary Faculty of the Built Environment, bringing together scientific and professional specialisms required to research, understand, design, construct and operate the buildings and urban environments of the future.

Located in London, the UCL Bartlett is at the heart of a large cluster of creative architects and engineering firms, next to the UK's seat of government and finance and has all the resources of a world city to hand. It offers unrivalled networking opportunities, with alumni in the majority of the major firms in London, who often give lectures to students and appear at networking events.

The multidisciplinary faculty contains the UCL Bartlett School of Architecture, which has been ranked first for Architecture in the UK for many years, and is characterised by a high level of invention and creativity. The school is internationally known as a centre for innovative design.

The programme is delivered through a combination of interactive seminars, individual and group tutorials, site visits and a residential field trip. Assessment is through unseen examination, coursework, and the built environment report. Joint coursework, including two major low-energy architectural design projects, is carried out by students in multidisciplinary teams.

Students will have the opportunity to participate in field trips and site visits including a residential trip to the Centre for Alternative Technology in North Wales.

Travel, accommodation and activities for the residential field visit is free. Travel costs for site visits or fieldwork within the London area (zones 1-6) accessible by public transport is covered by students. Otherwise, travel is covered by the programme.

Accreditation

This course has been accredited as suitable further learning to meet the academic requirement for Chartered Engineers (CEng) by the Chartered Institution of Building Services Engineers (CIBSE) and Energy Institute.

Degree structure

Mode: Full-time: 1 year; Flexible: 2-5 years
Location: London, Bloomsbury

Students undertake modules to the value of 180 credits. The programme consists of six core modules (90 credits), two optional modules (30 credits) and a built environment dissertation (60 credits).

A Postgraduate Diploma (120 credits, full-time nine months) is offered.

**CORE MODULES**
- The Built Environment: The Energy Context
- Health, Comfort and Wellbeing in Buildings
- Building Solar Design
- Natural and Mechanical Ventilation of Buildings
- Efficient Building Service Systems
- Methods of Environmental Analysis

**OPTIONAL MODULES**
- Advanced Building Simulation
- Low Energy Housing Retrofit
- Post Occupancy Evaluation of Buildings
- Multi-objective Design Optimisation
- Introduction to System Dynamics Modelling
- Indoor Air Quality in Buildings
- Building Acoustics
- Light, Lighting and Vision in Buildings
- Industrial Symbiosis
- Smart Energy Systems Implementation
- Energy Systems Modelling
- The availability of all optional modules is subject to demand.

**DISSERTATION/REPORT**
- All MSc students submit a 10,000-word report on a topic related to the main themes of the programme. The topic can be chosen to enhance career development or for its inherent interest.
**Your career**

Most students who complete the programme move into, or continue in, a building-related profession, such as architecture, low-energy design consultancy, or building services engineering. As the awareness of global environmental issues increases, the demand for people with expertise in the health and energy performance of buildings is expanding rapidly. A number of students have used the MSc as a foundation for MPhil/PhD research.

First destinations of recent graduates include: Neapoli, XC02, Max Fordham, Arup, WSP, Atkins, Buro Happold, PassivSystems, EnergyExcel, local authorities, Foster and Partners, Rogers Stirk Harbour and Partners.

Recent career destinations* include:

- Environmental Analyst, Foster + Partners
- Environmental Consultant, XCO2 Energy
- Graduate Engineer, AECOM
- Graduate Engineer, Arup
- Sustainability Consultant, Arup and studying Environment Facility Management, UCL

**Employability**

This programme is very "close to market" with many students finding jobs even before their studies have finished: the skills students gain are those that employers need. For example, we teach several tools used by commercial companies including the thermal analysis software IESVE. Students can walk straight into jobs where these are used and be useful immediately. Students sometimes take placement positions while working on their dissertations; in recent years this has included overseas options, for example, with Neapoli in Malaysia. Graduates often contact us through our strong alumni network to recruit for new positions, listening to their feedback ensures we keep the programme relevant to industry needs.

* Careers data is 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.
Entry requirements

The normal minimum qualifications are a second-class Bachelor's degree from a UK university or an overseas qualification of an equivalent standard.

For applicants without a first degree or full professional membership, but with relevant and substantial work experience in the field, a special qualifying examination may be set. Details of this route can be obtained from the Bartlett's Graduate Faculty Office.

English language proficiency level

If your education has not been conducted in the English language, you will be expected to demonstrate evidence of an adequate level of English proficiency.

The level of English language proficiency for this programme is: Standard.

Information about the evidence required, acceptable qualifications and test providers is provided at: [www.ucl.ac.uk/graduate/english-requirements](http://www.ucl.ac.uk/graduate/english-requirements)

Your application

Students are advised to apply as early as possible due to competition for places. Those applying for scholarship funding (particularly overseas applicants) should take note of application deadlines.

When we assess your application we would like to learn:

- why you want to study Environmental Design and Engineering at graduate level
- why you want to study Environmental Design and Engineering at UCL
- what particularly attracts you to the chosen programme
- how your academic and professional background meets the demands of this challenging programme
- where you would like to go professionally with your degree

Together with essential academic requirements, the personal statement is your opportunity to illustrate whether your reasons for applying to this programme match what the programme will deliver.

Application fee: There is an application processing fee for this programme of £75 for online applications and £100 for paper applications. More details about the application fee can be found at [www.ucl.ac.uk/prospective-students/graduate/taught/application](http://www.ucl.ac.uk/prospective-students/graduate/taught/application).