Urban Railways MSc

This MSc provides you with new transferable skills (including big data management and system integration skills) required for the 21st-century urban railways. Many of the modules and the dissertation are based on real-world problems, with much interaction with London-based practitioners. The programme improves your employability in the rail industry, while providing essential skills to those envisaging careers in general transport areas.

Degree summary

The programme focuses on transferable skills that are essential for urban railway planning, operation and management in the 21st century, and are currently in demand by the industry. These include data management and analysis, system integration, and visionary-thinking capabilities. In addition, the dissertation and topics on the programme are about real-world problems, so that students can maximise the employability opportunities.

Developed with our industry collaborators, our MSc in Urban Railways is not a traditional knowledge/teaching-based programme but focuses on new transferable skills and the visionary-thinking capabilities required for urban railways. The programme also includes group work and scenario-based exercises.

Hosted by UCL Railway Research Group, a leading research group in railway operation, optimisation and management, the programme offers a wide range of opportunities to students to interact with London-based railway practitioners.

Students also benefit from UCL’s wide and in-depth portfolio of Master’s programmes; they can take modules from other UCL Master’s programmes to strengthen their speciality in their chosen subjects.

This programme will be delivered by a selection of taught modules, a week-long intensive module, and one-to-one or group tutorials. There will be much input from industry practitioners. Assessment will range from group project presentations, coursework, and examinations to essays and a compulsory dissertation over the last term.

Degree structure

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

Students undertake modules to the value of 180 credits. The programme consists of four core modules (60 credits), four optional modules (15 credits each), and a dissertation/report (60 credits). Students choose 30 or 45 credits of optional modules and either 15 or 30 credits of elective modules.

A Postgraduate Diploma (120 credits) is also offered.
A Postgraduate Certificate (60 credits) is also offered.

Please note that the list of modules given here is indicative. This information is published a long time in advance of enrolment and module content and availability is subject to change.

CORE MODULES

- Railway Policy, Management and Engineering
- Engineering Study of Rail Systems and Infrastructure
- Urban Railway System Integration
- Urban Railways in Global Contexts

Each core module is worth 15 credits

OPTIONAL MODULES

Students choose either 30 or 45 credits of optional modules.

- Quantitative Methods and Data Systems (15 credits)
- Urban Railway Planning and Analysis (15 credits)
- Urban Railway Business Management (15 credits)
- Transport Planning Analysis (15 credits)

DISSERTATION/REPORT

- All students undertake an independent research project which culminates in a dissertation of 10,000-15,000 words (60 credits)

Students can also join our Urban Railway Camp, which includes site visits and dissertation training sessions on a residential course.

As your dissertation project will focus on real-world problems, some students would be required to work in offices of our industry partners for a certain period of time. This depends on the dissertation project and the needs of industry partners.
Your career

Graduates of this programme will be able to work in the urban railway sector in the UK, Europe and beyond. Roles may include railway operators, infrastructure managers, government regulators, software developers, and consultants. Some graduates may pursue careers in academia but focus on railways.

Employability

Upon completion, students will:

// be equipped with transferable skills, including skills for big data management and analytics, and system integration (within the rail industry and with businesses outside), which are essential across the railway industry

// possess visionary-thinking capabilities. They will envisage urban railways as, for example, part of urban mobility services or a tool for the city’s prosperity

// be trained as a global leader. Through intensive project-based work on real-world problems, students will be able to produce business/operation plans and design solutions, and execute them in multicultural environments.

// demonstrate essential knowledge for urban railways.
Entry requirements

A minimum of an upper second-class Bachelor's degree or an overseas qualification of an equivalent standard.

**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:

1. why you want to study Urban Railways at graduate level
2. why you want to study Urban Railways at UCL
3. what particularly attracts you to this programme
4. how your academic and professional background meets the demands of this programme
5. 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.

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

FEES AND FUNDING 2019/20 ENTRY

- **UK**: £12,750 (FT), £6,375 (PT)
- **EU**: £12,750 (FT), £6,375 (PT)
- **Overseas**: £26,660 (FT), £13,340 (PT)

The tuition fees shown are for the year indicated above. Fees for subsequent years may increase or otherwise vary. Further information on fee status, fee increases and the fee schedule can be viewed on the [UCL Students website](http://www.ucl.ac.uk/student).

Fees for flexible, modular study are charged pro-rata to the appropriate full-time Master's fee taken in an academic session.

Full details of funding opportunities can be found on the UCL Scholarships website: [www.ucl.ac.uk/scholarships](http://www.ucl.ac.uk/scholarships)

APPLICATION DEADLINE

All applicants: 26 July 2019

Details on how to apply are available on the website at: [www.ucl.ac.uk/graduate/apply](http://www.ucl.ac.uk/graduate/apply)

CONTACT

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