The Spatial Data Science and Visualisation MRes teaches cutting-edge data analysis, mining, modelling and visualisation techniques for spatial systems. Students carry out their own research project, supported by academics, researchers and students within The Bartlett, UCL’s Faculty of the Built Environment.

Degree summary

Students gain a grounding in the principles and skills of spatial research, data analysis and visualisation and virtual environments, and develop an understanding of research methodology and methods of data collection and analysis. Subject-specific modules provide students with the opportunity to develop skills in spatial analysis and to contribute to current debates in the field.

- The Centre for Advanced Spatial Analysis (CASA) is a research centre specialising in computer-based methods such as GIS, urban simulation, mapping, data visualisation, and 3D environments in cities and space.
- Graduates from our programme will have been exposed to a range of programming languages (Processing, R, Python and MySQL), 3D visualisation packages, and a substantive grounding in GIS, programming structure, mathematical methods and data design.
- This combination of skills is distinctive – graduates from this programme will have the tools to introduce new data science methods in industry and government.

The programme is delivered through a combination of lectures, seminars, tutorials and practical-based workshops and classes. The interlinked laboratory research-based mini project with data collection focuses on ‘remote data mining’ rather than fieldwork in the traditional planning/geographical/architectural sense. Assessment is through group and individual projects and the dissertation.

Degree structure

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

Full-time students study for 37.5 hours per week during term time. Typically, lectures and seminars occur on two days per week. Part-time and Flexible students normally attend half this amount.

The programme consists of four core modules (60 credits), a group mini-project (30 credits) and a research dissertation (90 credits).

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.

**COMPULSORY MODULES**

- Data Science for Spatial Systems
- Geographic Information Systems and Science
- Introduction to Programming for Spatial Analysts
- Quantitative Methods
- Group Mini Project: Digital Visualisation

**OPTIONAL MODULES**

There are no optional modules on this programme.

**DISSERTATION/REPORT**

All students submit a research dissertation of 10-12,000 words and 5,000-words in the form of a paper for publication.
Your career

The Spatial Data Science and Visualisation MRes offers a unique skillset in computation mapping, visualisation and spatial research, with recent graduates working at Ordnance Survey and the BBC, as well as a number continuing to PhDs. Through our PhD partners, Knowledge Transfer Partnerships and substantial outreach, CASA is well-connected to the world outside academia.

Employability

Research-led skills are becoming increasingly key in shaping our understanding of complex spatial functions. Vast amounts of previously unused data are becoming available either from changes in accessibility, the nature of network and cloud-based computing, changing national data policies or more widely as a result of new mass data collection methodologies.
Entry requirements

A minimum of an upper second-class Bachelor’s degree in a relevant subject from a UK university or an overseas qualification of an equivalent standard. Applicants with a lower second-class Bachelor’s degree may be considered on their individual merit.

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

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 Spatial Data Science and Visualisation at graduate level
// why you want to study Spatial Data Science and Visualisation 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.

FEES AND FUNDING 2019/20 ENTRY

// UK: £9,570 (FT), £4,755 (PT)
// EU: £9,570 (FT), £4,755 (PT)
// Overseas: £23,300 (FT), £11,650 (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.

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

APPLICATION DEADLINE

All applicants: 26 July 2019

Details on how to apply are available on the website at:
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