This research Master's programme focuses on technology and the applications of virtual reality, computer graphics, imaging and computer vision. Students learn alongside world-leading researchers specialising in virtual reality, augmented reality, 3D modelling, visualisation, interfaces, gaming and social. They will partake in UCL's multidisciplinary tradition, sharing ideas and resources across UCL Engineering and beyond.

Degree summary

Students will learn how to analyse, engineer and evaluate a broad range of virtual reality and augmented reality systems. They will discover how to analyse the requirements for interfaces, such as type of system, role of application tasks and perceptual requirements. They will learn how to develop for advanced immersive systems as well as how to validate and evaluate those systems.

The Virtual Reality MRes is run by UCL’s Virtual Environments, Interaction and Visualisation (VEIV) Centre. This centre has been a world leader in computational capture, rendering and simulation for the past 15 years.

VEIV has access to UCL’s exceptional virtual reality facilities, including a full range of consumer AR & VR equipment, motion capture systems, a large CAVE projection room system and haptic robots.

The programme is delivered through a combination of lectures, lab practicals and tutorials, and is assessed through examinations, presentations, dissertation and coursework.

Degree structure

Mode: Full-time: 1 year
Location: London, Bloomsbury

Students undertake modules to the value of 180 credits. The programme consists of an individual dissertation (75 credits), a group research project (30 credits), four optional modules (45 credits), and two transferable skills modules (30 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

- Individual Research Project
- Group Project B
- Research Methods and Reading

If the cohort is not large enough to run the Group Project, students will take a second individual research project instead.

Optional modules

Students choose four optional modules (45 credits in total) from the following list. One of the transferable skills modules must be Researcher Professional Development or Entrepreneurship Theory and Practice.

- Mathematical Methods Algorithms & Implementations
- Virtual Environments
- Image Processing
- Computer Graphics
- Machine Vision
- Graphical Models
- Geometry of Images
- Acquisition & Processing of 3D Geometry
- Inverse Problems in Imaging
- Computational Photography & Capture
- Researcher Professional Development*
- Entrepreneurship Theory and Practice*

It is also possible for students to select other advanced taught or research modules, with approval.

Please note that registration on optional modules is subject to demand and cannot be guaranteed.

*Indicates transferable skills module. At least one of these transferable skills modules must be taken.

Dissertation/Report

- All students will undertake an individual research project (75 credits) which culminates in a dissertation of 10,000 - 12,000 words.
Your career

We equip our graduates for jobs in organisations including creative media companies, global IT companies and 3D graphics and product design specialists. We expect graduates to be able to develop state-of-the-art systems that fulfil a broad range of application needs. Many of our alumni work in the various media industries across London. A significant number have founded their own successful start-up companies.

Employability

With virtual reality and associated technologies being relatively new, industry needs individuals with a broad ability to design and evaluate systems. VEIV and UCL provide a multidisciplinary environment where students can specialise in a particular area, but also get a broad understanding of the various ways that novel immersive technologies are being analysed and developed.
Entry requirements

A minimum of an upper second-class UK Bachelor’s degree in a relevant discipline, or an overseas qualification of an equivalent standard. Work experience may also be taken into account. Experience, knowledge and hands-on experience with computing (e.g. software development or coding), and with mathematics/statistics, are key requirements for individuals to be able to cope with the content of the programme. Therefore in your application we suggest that you highlight any such modules taken during your degree and any relevant experience you have outside of your formal education.

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: Good. Information about the required, acceptable qualifications and test providers is provided at: www.ucl.ac.uk/graduate/english-requirements

Your application

When we assess your application we would like to learn:
// why you want to study Virtual Reality at graduate level
// why you want to study Virtual Reality at UCL
// what particularly attracts you to this programme
// why you want to learn about the research process and to learn through research
// how your academic and professional background meets the demands of this 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: £12,750 (FT)
// EU: £12,750 (FT)
// Overseas: £27,040 (FT)

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.

All full time students are required to pay a fee deposit of £2,000 for this programme. All part-time students are required to pay a fee deposit of £1,000.

UK Government-backed postgraduate loans worth up to £10,280 are now available to help Master’s students cover their tuition fees and living expenses. These non-means-tested, repayable postgraduate student loans are similar to those offered to undergraduate students.

Find out more and check eligibility on the UK Government’s Student Finance website.

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

APPLICATION DEADLINE

All applicants: 14 June 2019

Details on how to apply are available on the website at: www.ucl.ac.uk/graduate/apply

CONTACT

Dr Charlotte Penny, Programme Manager

Email: veiv-admin@cs.ucl.ac.uk

Telephone: +44 (0)20 3108 7150

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