SPACE SCIENCE AND ENGINEERING: SPACE TECHNOLOGY MSc / 2019/20 ENTRY

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Space Science and Engineering: Space Technology MSc /

Taught jointly by UCL Space & Climate Physics and UCL Electronic & Electrical Engineering, this MSc programme aims to provide a broad understanding of the basic principles of space technology and satellite communications together with specialised training in research methods and transferable skills, directly applicable to a career in the public and private space sectors.

Degree summary

The Space Technology pathway is focussed on the application of space technology in industrial settings, its main objective is to provide a sound knowledge of the underlying principles which form a thorough basis for careers in space technology, satellite communications and related fields.

Students develop a thorough understanding of the fundamentals of:
- spacecraft, satellite communications, the space environment, space operations and space project management; the electromagnetics of optical and microwave transmission, and of communication systems modelling; a range of subjects relating to spacecraft technology and satellite communications.
- UCL Space & Climate Physics, located at the Mullard Space Science Laboratory, is a world-leading research organisation and is the largest university space science group in the UK.
- It offers a unique environment at the forefront of space science research, where scientists and research students work alongside top engineers building and testing instruments for space as well as studying the data from these and other spaceborne and ground-based instruments.
- The close contact that the laboratory enjoys with space agencies such as ESA and NASA and with industrial research teams encourages the development of transferable skills which enhance job prospects in industrial and research centres in the public and private space sectors.

The programme is delivered through a combination of lectures, coursework problem tasks, team-based coursework exercises, presentations and tutorials. Student performance is assessed through unseen written examinations, coursework, and the individual and group projects.

Degree structure

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

Students undertake modules to the value of 180 credits. The programme consists of three core modules (45 credits), four optional modules (60 credits), a Group Project (15 credits) and an Individual research Project (60 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

- Space Science, Environment and Satellite Missions
- Space Systems Engineering
- Communications Systems Modelling Type
- Group Project

OPTIONAL MODULES

- At least one module from the following:
  - Spacecraft Design - Electronic Sub-systems
  - Mechanical Design of Spacecraft
  - Antennas and Propagation
  - Radar Systems
  - Space-based Communication Systems
- At least one module from:
  - Space Instrumentation and Applications
  - Space Plasma and Magnetospheric Physics
  - Principles and Practice of Remote Sensing
  - Global Monitoring and Security
  - Space Data Systems and Processing

DISSERTATION/REPORT

- All MSc students undertake an individual research Project, which normally involves attachment to a research group, and culminates in a report of 10,000–12,000 words.
Your career

The programme aims to prepare students for careers in space research or the space industry, or further research degrees.
Entry requirements

A minimum of a second-class Bachelor's degree in a relevant discipline from a UK university, 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: Good. 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 for a Master's degree in Space Science and Engineering, and particularly on which Pathway (Space Science or Space Technology) you intend to enrol, and why
- why you want to enter a programme of study at UCL
- what particularly attracts you to this programme, how have you heard of it and what do you want to get from it
- how your academic and professional background meets the entry requirements and the demands of this programme, considering the topics that are taught in it
- where you would like to go professionally with your degree, i.e. which kind of career you intend to pursue

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, and how prepared you are to face the challenges it poses (e.g. large project component, individual and in a team, and taught advanced topics).

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.

FEES AND FUNDING 2019/20 ENTRY

// UK: £11,060 (FT)
// EU: £11,060 (FT)
// Overseas: £30,140 (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.

STFC and NERC studentships may be available.

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

Programme Administrator
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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