UCL Non-Residential Summer Schools 2019

Division of Surgery and Interventional Science

Dates: 29th July – 1st August 2019

Summer School Title: Sports and Exercise Medical Sciences: experience the journey from cells to medals

Are you interested in how medical sciences can change the way we play sport? Come to the Institute of Sports and Exercise Health at UCL, learn from world class experts and run your own research project to learn how the human body functions during exercise. Using our state-of-the-art equipment, you will explore the effects of the environment, technique and supplementation on performance and discuss its importance with our lecturers. You will also get the chance to experience other Medical Science disciplines through hands-on demonstrations in the labs with our innovation and engineering teams. You will learn how engineering is used to improve artificial limbs and how cell biology is helping to develop man made organs as part of our research at UCL. At the end of the week, you will have the opportunity to present the findings of your research. With sessions on the UCAS application process and careers pathways in sports science, this summer school is the perfect preparation for a degree in Sports and Exercise Medical Sciences.

Required A level subjects: Biology and Chemistry

For further information and other qualifications, please visit our website:

https://www.ucl.ac.uk/prospective-students/undergraduate/degrees/sport-exercise-medical-sciences-bsc/

Integrated Engineering Programme

Dates: 29th July – 1st August 2019

Summer School Title: Change Your World!

Change your World with Engineering is an immersive and problem-solving summer school. You will get an insight into how you can use engineering to tackle 21st century challenges including global health, human wellbeing and transformational technology. This course will give you a taste of how modern engineering works, and to learn how working across disciplines can create innovative solutions to environmental, social and political issues.

You will work on authentic engineering challenges with other participants in a design studio setting, with the support of academic staff and students. You will experience your own engineering project from start to finish, where you get to design, test and prototype your ideas.

The transition to University can be difficult for everyone especially those with Neurodiverse cognitive profiles (ASD, ADHD, DCD, Tourettes Syndrome). The purpose of this summer school is to enable you to experience what University has to offer within a supported environment.
This Summer School gives you the opportunity to develop a set of personal and professional skills that are highly desired by employers—such as project management and entrepreneurial thinking.

**Required A level subjects:** Dependant on degree option. Please see below.

For further information and other qualifications, please visit our website:

https://www.ucl.ac.uk/engineering/study/undergraduate/integrated-engineering-programme

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**Maths**

**Dates:** 29th July – 1st August 2019

**Summer School Title:** Year 12 Curve Sketching Summer School

Curve sketching is an essential skill in the mathematician’s toolbox. Graphs reveal the behaviour of functions and are used for many purposes in mathematics, science and engineering. This Summer School aims to explore different aspects of curve sketching in active sessions where you will develop mathematical intuition and problem solving skills through challenging problems. You will also have an opportunity to learn more about the UCL Department of Mathematics and meet the admissions tutor, who will advise you on applications. Special guest lecturers will offer research talks to widen your mathematical horizon. From taboo cubics to kissing curves, this course will inspire you to take mathematics further.

**Required A level subjects:** Maths and Further Maths

For further information and other qualifications, please visit our website:

https://www.ucl.ac.uk/maths/study/bscmsci-mathematics/admissions

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**Pharmacy**

**Dates:** 22nd – 25th July 2019

**Summer School Title:** An insight into the Master of Pharmacy degree at UCL School of Pharmacy

Are you interested in medicines and how to use them effectively? This summer school is the perfect introduction to the discipline of Pharmacy and the MPharm degree that UCL offers. You will get a “taste” into the journey and life of a Pharmacy student at UCL. The programme covers a diverse range of themes, from fundamental chemical science through biology and pharmacology to the more applied social aspects of pharmacy and patient behaviour. To introduce you to the course, you will get hands-on experience in a variety of laboratory demonstrations and practical sessions. Our academic staff and students will be there to support you and talk about their experiences into their pharmaceutical careers.

**Required A level subjects:** Chemistry and either Biology, Maths or Physics

For further information and other qualifications, please visit our website:

http://www.ucl.ac.uk/prospective-students/undergraduate/degrees/pharmacy-mpharm/
Space and Climate Physics (Mullard Space Science Lab)

(Related Degree Programmes: Physics, Astrophysics, Natural Sciences, Geophysics, Earth Sciences, Engineering, Mathematics)

Dates: 15th – 19th July 2019

Summer School Title: MSSL Space Science Week

Mullard Space Science Laboratory is a world leading space science research organisation involved with the technological development and scientific applications of NASA and ESA space missions. Research at the lab includes everything from black holes and neutron stars to planets and human spaceflight. In your week at Mullard you will:

- Design and plan a mission proposed by one of our space science researchers.
- Learn how to use data from active ESA, NASA and UKSA spacecraft to study the solar system and beyond. Last year students learned how to find new planets where life could exist, and predicted the onset of huge solar storms.
- Discover how a spacecraft is built by exploring our state of the art facilities. Rockets, telescopes, and particle detectors are just a few of the artefacts you will see by walking the corridors.
- Meet people at the forefront of scientific endeavour and learn how they created missions and discovered new phenomena.

Space Science Week at Mullard is a fantastic way to get involved with cutting edge space research and to discover exactly where a science and maths A-level could take you.

Required A level subjects: No specific subjects

Please note, this is not a subject you can study at Undergraduate level, for information on UCL Undergraduate degrees, please visit: http://www.ucl.ac.uk/prospective-students/undergraduate/degrees

UCL Special Collections

(Related Degree Programmes: Archaeology, Anthropology, Arts and Science, English, Fine Art, History, Language and Culture, Politics and International Relations and Politics, Philosophy and Economics)

Dates: 29th July – 2nd August 2019

Summer School Title: Protest in Print

Learn how artists and activists have used print and grass roots publications to communicate their messages.

Explore examples of protest in print from UCL Special Collections’ incredible rare book and manuscript collections.

Join us on a journey to discover how print, in all its many forms, has been and can be a powerful tool for political and social change. You will also get the opportunity to create your own printed banners or posters at the Slade School of Fine Art.
On this course, you will:

- Get hands-on experiences with rare or unique items from UCL Special Collections archives, rare books and manuscripts.
- Learn about the massive impact that printing has had on society, and how it continues to be used as a tool by artists, writers and activists.
- Develop your own message of protest – about a subject area that you are passionate about – and learn to create printed materials at The Slade School of Fine Art that communicate this.
- Exhibit your work to a public audience in the UCL’s South Junction Reading Room.

This course is suitable for a wide variety of students, especially those interested in History, English, Art, Language, Culture, Politics and Anthropology.

**Required A level subjects:** No specific subjects

Please note, this is not a subject you can study at Undergraduate level, for information on UCL Undergraduate degrees, please visit: [http://www.ucl.ac.uk/prospective-students/undergraduate/degrees](http://www.ucl.ac.uk/prospective-students/undergraduate/degrees)