Consistently rated amongst the world's best universities (3rd in Europe and 6th in World, QS World University Rankings 2023), Imperial College London is a science-based institution with an international reputation for excellence in teaching and research. Imperial attracts over 22,000 students and 8,000 staff of the highest international quality from over 126 different countries.

Since its foundation in 1907, Imperial's contributions to society have included the discovery of penicillin, the development of holography and the foundations of fibre optics. This commitment to the application of research for the benefit of all continues today, with current areas of focus including interdisciplinary collaborations to improve global health, tackle climate change, develop sustainable sources of energy, address security challenges, develop data management and analysis technologies for supporting data driven research, and tackling problems at molecular scale.

Imperial's Centre for Continuing Professional Development had extensive experience in developing and running a range of summer schools for undergraduate students. We draw on Imperial's education pedagogy to design and deliver programmes that provide an engaging learning experience for students, incorporating group projects that are designed to assess students' learning outcomes.

The Data Science Institute (DSI)• is a major Imperial College London initiative that brings together Imperial's existing data science activities and expertise and provides a focus and a catalyst for new partnerships.

The DSI sups

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64.5 contact hours spread over 3 weeks covering lectures, workshops, tutorials, project work and visits. Classes will be delivered on weekdays.

Students will be allocated in small groups for Project work which will be done through team- based learning with supervision. Final project will be presented in groups to a panel of experts on the last day of the programme. A prize will be awarded to the team with the best project. The entire programme will be taught in English.

Students will receive a verified Imperial College London certificate on successful completion of the summer school and a prize will be awarded to the best project team. Each student will also receive a transcript for their project marks.

All students are expected to be studying an undergraduate or postgraduate degree, in any engineering discipline, IT or computing degree at a well-recognised university.

English requirements:

All students are required to have a good command of English, and if it is not their first language, they will need to satisfy the College requirement as follows:

>   a minimum score of IELTS (Academic Test) 6.5 overall (with no less than 6.0 in any element) or equivalent.
>   TOEFL (iBT) 92 overall (minimum 20 in all elements)
>   CET- 4 (China) minimum score of 550
>   CET- 6 (China) minimum score of 520

*The English qualification certificate is waived for both programme and scholarship application for the student undertake higher education (undergraduate or postgraduate) studies in English.
*If you have difficulty providing the evidence, you will be required to attend an online interview.

Technical requirements:

As the project has a strong technical element, students are expected to have the following technical knowledge and interest:

>   Interested in computer visualisation / natural language processing;
>   Have at least intermediate level at one of the common programming language (Python, Java, C ++, etc.);
>   Have mathematical foundation (probability theory, linear algebra, etc.);
>   Have understanding of the Linux environment;
>   Knowledge of Machine Learning with experience in using PyTorch / Tensorflow / Keras.

Students will be asked to bring along their computer pre-installed with Python for project work.

The fee covers tuition which cov...

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Campus tour, visits and social activities in the programme schedule,

Lunches and refreshments on weekdays from 24th July to 5th August,

Accommodation fee for 17 nights.

Overseas insurance expenses;

A London Transport card with a top-up value of £5;

Shuttle service (bus).

*Scholarship Application

Please note you are also eligible to apply for the scholarship and get a tuition fee deduction. A scholarship of up to £600 will be provided by *Global University Online*.

To apply, please complete an online application form and upload your personal statement (within 500 words) and CV/resume. For more details, please visit:

http://www.globaluniversityonline.org/hqdx.php/ larsd hq etail /4;gtt œar i n

(subject to change)

22nd July, Saturday

Arrive in the UK
Ice-breaking Session (depending on the arrival time of students)

23rd July, Sunday

10:30	Orientation
14:00	Academic English Skills
16:30	End of day

24th July, Monday

09:00	Programme Registration
09:15	Welcome, Housekeeping and Introduction to Imperial
09:30	Programme Overview and Icebreaker
10:00	Introduction to Data Science
12:30	Group Photo
13:00	Welcome lunch with student ambassadors
	Followed by campus tour
14:00	Team building and leadership
16:30	End of day

25th July, Tuesday

09:30	Exploratory Data Analysis
11:00	Introduction to Natural Language Processing
12:30	Lunch
13:30	Group Project Introduction and Briefing
	Data preparation
16:30	End of day

26th July, Wednesday

09:30	Data Science for Computer Vision
12:30	Lunch
13:30	Social activity 1
	Thames River Cruise
16:30	Tour ends

27th July, Thursday

09:30	Machine Learning for Data Science
12:30	Lunch
13:30	Project tutorials Q & A
15:00	Teams work on group project
16:30	End of day

28th July, Friday

09:30	Data Visualization
12:30	Lunch
13:30	Visit to DSI 360 observatory for Groups 1, 2, 3, 4
14:30	Visit to DSI 360 observatory for Groups 5, 6, 7, 8
15:30	Visit to DSI 360 observatory for Groups 9, 10, 11
16:30	Visit to DSI 360 observatory for Groups 12, 13, 14
	Teams work on group project during non-visit period
17:30	End of day

29th & 30th July, Saturday & Sunday

Free time to explore London

31st July, Monday

09:30	Data Science Entrepreneurship
12:30	Lunch
13:30	Effective Communication for Presentation Workshop
16:30	End of day

1st August, Tuesday

09:30	Transforming the future of healthcare with data science
12:30	Lunch
13:30	Social activity 2 Silicon Roundabout Tech City Tour
16:30	Tour ends

2nd August, Wednesday

09:30	Introduction to Blockchain Technology
12:30	Lunch
13:30	Data Privacy and Ethics
15:30	Teams work on group project
16:30	End of day

3rd August, Thursday

09:30	Advances in Data Science - Research showcase
12:30	Lunch
13:30	Opportunities for International Students
14:00	Project tutorials Q & A
15:30	Teams work on group project
16:30	End of day

4th August, Friday

09:00	Students arrive to upload project presentations
09:30	Group 1
09:45	Group 2
10:00	Group 3
10:15	Group 4
10:30	Group 5
10:45	Break
11:00	Group 6
11:15	Group 7
11:30	Group 8
11:45	Group 9
12:00	Group 10
12:15	End of presentation Students to complete feedback form
12:45	End of summer school reception lunch
14:00	Announcement of winning teams and Certificate Ceremony
15:00	End of summer school

5th & 6th August, Saturday & Sunday

Free time to explore London

7th August, Monday

10:30	Workshop: Alumni Experience Sharing (Master's and PhD/ Career opportunities)
13:30	London Visit

8th August, Tuesday

London Visit / Departure Day

The summer school is founded by Professor Yike Guo and co-directed by [Dr Kai Sun](#) and Huang Ping and taught by a multi-disciplinary teaching faculty from the Data Science Institute and other departments of Imperial College London.

The summer school will take place at Imperial College London's South Kensington Campus, located amongst many famous [attractions](#) in London.

The culture triangle: neighbour to three of London's most prestigious (and free) museums. Right next door, the Science Museum. Across the road, the Victoria & Albert Museum, and around the corner of the Natural History Museum. From Neolithic to the latest scientific breakthroughs, experience it all just minutes from Imperial's doorstep.

The campus is also next to the famous Royal Albert Hall, one of London's most iconic music venues, established in 1871, host to the BBC Proms and countless world-famous international artists.

In addition, the beautiful Hyde Park and the famous Harrods Department Store are just a short walk from the campus.