

# CAMBRIDGE SUMMER ACADEMIC PROGRAMME

Cambridge, UK | 16-29 July 2024 | Aged 15 & above





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## PART 1

# Overview

The Cambridge Summer Academic Programme is a short-term academically rigorous programme for ambitious high school students presented in collaboration with renowned professors and tutors from the University of Cambridge, held at the tranquil yet magnificent campus of Churchill College.

The programme is designed to bring high school students to Cambridge, where they will receive high-quality training in professional, language, and general education courses, visit famous research institutes and laboratories, participate in a variety of social activities and excursions, and interact with students from the University of Cambridge who will accompany them throughout the programme.







## PART 1

# Overview

During the course, professors and tutors will provide guidance for the final group presentations. At the end of the course, students will deliver group presentations, which will be assessed and graded by University of Cambridge faculty members. Those who pass will be awarded a prestigious course completion certificate and academic report at an elegant formal dinner.

The Cambridge Summer Academic Programme aims to enhance students' academic abilities and professional development, deeply immerse them in the learning atmosphere of a world-class university, experience the unique British culture, broaden their international horizons, and improve their competitiveness.







**PART 2**

# Highlights

## Immersive experience in a world-class university

Students will be staying in en-suite rooms in student accommodation at Churchill College, Cambridge. Living in dorms is a perfect opportunity to get a taste of life in uni, as well as making friends with peers from all over the world.







## PART 2

# Highlights

## Special visits to Britain's top universities

Pay in-depth visits to top British universities like Oxford, UCL and LSE in person and connect with their current students, build your global network of peers, set your academic goals, and delve into the historical, cultural, and educational essence of the UK.



QS World  
University Rankings 2024



University of Cambridge **World Ranking 2**  
Immersive learning experience



University of Oxford **World Ranking 3**  
Visit on Day 11



UCL **World Ranking 9**  
Visit on Day 13



LSE **World Ranking 45**  
Visit on Day 12





## PART 2

# Highlights

## Extensive academic and cultural activities

Courses are taught by Cambridge's incumbent professors, culminating in the issuance of an official completion certificate. Explore iconic cultural landmarks like the British Museum and the Houses of Parliament, enhancing cultural literacy and global perspective.







## PART 2

# Highlights

## Remarkable socialising opportunities

Engage face-to-face social activities with students from Cambridge, Oxford, and other institutions, gaining deep insights into the student's life at British universities; and dine at classic British restaurants to savour the authentic flavours of Britain.







## PART 3

# Introductions

## University of Cambridge

Founded in 1209, the University of Cambridge is the world's top research university. It comprises 31 colleges and over 150 departments, excelling in science, engineering, and the humanities. The university has produced over 100 Nobel laureates. Its historic buildings, the River Cam, and vibrant academic atmosphere make it a dream destination for students. Cambridge is dedicated to advancing knowledge and fostering global collaboration.







## PART 3

# Introductions

## Churchill College

Founded in 1960, Churchill College honours Sir Winston Churchill. It focuses on excellence and innovation in science, engineering, and mathematics. The college offers modern facilities, encourages interdisciplinary collaboration, and hosts a variety of cultural and sports activities. Its unique architecture and green spaces make it a notable part of Cambridge. Approximately 70% of students admitted each year study STEM courses.







## PART 4

# Life on Campus

## Staying on campus

Students will reside in en-suite rooms provided by the college. These rooms are well-equipped and comfortable, ensuring a good environment for rest and study. Living in dorms is the best way to interact with other international students, broadening their horizons and fostering friendships.







## PART 4

# Life on Campus

## Studying on campus

Students will have access to the college's library resources, enjoying a wealth of academic materials and modern study facilities. Courses will be conducted in the college's classrooms, taught by renowned professors and tutors from the University of Cambridge. The small class sizes ensure that each student receives personalised guidance and support.







## PART 4

# Life on Campus

## Exploring on campus

The college is close to Cambridge city centre and various historical and cultural landmarks, such as King's College and the River Cam. The college organises a variety of excursions, enabling students to learn about Cambridge's culture and history in their free time. The campus itself is renowned for its lush green environment and brutalist architecture.







## PART 4

# Life on Campus



### Formal Dinner

The Formal Dinner is one of the oldest traditional social activities. In the ancient colleges of Cambridge, the flickering candlelight illuminates the solemn and elegant dining hall. Students, dressed in formal evening attire, listen to Latin prayers recited by the college fellows and enjoy traditional food.



### Punting

The River Cam, immortalised by the poet Xu Zhimo, captivates every visitor's imagination. Drifting leisurely upstream with a punt on the gentle waters of the Cam, experiencing the ancient and graceful charm of Cambridge, is considered a must-do activity when visiting the city.



### Social Dance

Participating in a social Latin dance with Cambridge students offers the chance to experience the enchanting encounters of princes and princesses in a fairy tale. Feel the authentic Latin vibe, and make warm and cheerful friends among the Cambridge students.



### Concert/Choir

Cambridge frequently hosts a variety of unique concerts and choir performances. Church culture, an inseparable part of British heritage, is celebrated through the beautiful forms of concerts and choral singing, in the famous churches and halls of Cambridge.





## PART 5

# Course & Lecturers

Our academic course is meticulously designed, offering students a total of 12 hours of study, covering three main sections. It aims to enhance students' academic levels across various modules, including professional, language, and general education. This comprehensive approach provides a solid foundation for gaining admission to world-renowned universities such as Oxford and Cambridge.

### Research Methodology

- Literature reading and research topic formulation
- Overview of research methodology and case studies
- Effective analysis of research results and extraction of innovative points
- Publishing and presentation skills for research outcomes

### Subject 101s

- Artificial Intelligence (AI)
- Medicine & Pharmaceuticals
- Materials Science
- International Relations
- Engineering & Technology
- Architecture & Urban Studies
- Humanities & Social Sciences
- Finance & Business

### Practical Skill Workshops

- CV and Personal Statement writing workshops
- Interview skills
- Presentation skills
- Guidance on applications to prestigious UK universities such as Oxford and Cambridge





## PART 5

# Course & Lecturers

### Delivered by Renowned Cambridge Scholars

Unlike typical summer enrichment programmes, our programme features lectures by renowned professors and scholars from various fields at the University of Cambridge.

### Cambridge Supervisions

Supervision is considered the cornerstone of Cambridge's world-leading undergraduate education and research, a distinctive feature and the essence of Cambridge education. Tutors will provide Supervision to assist participants with their academic work.

### Companion by Cambridge Students

Throughout the programme, elite students from Cambridge University will accompany participants, offering both living assistance and academic guidance. The programme aims to foster long-term, sustainable friendships and connections.

### Lectures in Cambridge Colleges and Institutions

The University of Cambridge has 31 autonomous colleges. Participants will attend lectures by renowned Cambridge scholars in various colleges and affiliated institutions, experiencing high-quality teaching from distinguished professors up close.

### Certificate of Completion

At the end of the course, each participant will receive an officially certified certificate of completion and an academic report, recognised by prestigious universities and enterprises worldwide. The original document can be dispatched by us if needed for further study or job applications.





## PART 5

# Course & Lecturers

SUBJECT 101

## Artificial Intelligence (AI)

### Supervised Networks: Image Analysis with CNNs/GANs

Models of Convolutional Neural Networks (CNNs) and Generative Adversarial Networks (GANs), their data distribution learning, and the role of GANs in addressing unsupervised learning challenges.

### Reinforcement Learning in Robotics: Applications and Challenges

Latest reinforcement learning techniques in robotic environments, including algorithms and policy representations, exploring challenges in robotic policy representation.

### AI and Computational Biology Models in Healthcare

Developing a general computational/AI framework to address complexities in modern healthcare systems.



**Prof Pietro Liò** MAE

- Member of the Academia Europaea, Professor of Computational Biology at the Department of Computer Science and Technology, University of Cambridge
- Focusing on AI applications in biology, healthcare, and genomics

SUBJECT 101

## Medicine & Pharmaceuticals

### Role of Mitochondria in Acute Myocardial Infarction/Heart Failure

Mitochondria's role in ischemia/reperfusion injury post-myocardial infarction and its significance in treating heart failure progression.

### Diabetic Cardiomyopathy and Heart Failure with Preserved Ejection Fraction

Chronic heart failure due to cardiac changes from hyperglycemia in diabetic patients, with an emphasis on HFpEF's pathophysiology and potential new treatments.

### New Therapies for Acute Ischemic Stroke

Highly translational interventions for ischemic stroke, including thrombectomy and drug development.



**Prof Thomas Krieg**

- Professor of Experimental Cardiovascular Medicine at the University of Cambridge
- Focusing on cardiovascular medicine, particularly myocardial ischaemia and reperfusion injury
- Honorary Consultant Physician





## PART 5

# Course & Lecturers

SUBJECT 101

## Materials Science

### Fundamentals of Nanotechnology

Origins and latest developments in nanotechnology applications to gain insights into future possibilities.

### Detailed Introduction to Nanotechnology

In-depth study of how electrical and mechanical properties of materials change at the nanoscale, and its application to automotive electrification issues.

### Batteries: Nanotechnology in Electronics

Fundamental concepts of battery technology and the role of nanotechnology in enhancing battery performance.



### Prof Jason Robinson

- Professor of Materials Physics at the Department of Materials Science & Metallurgy, University of Cambridge, Head of Department
- Focusing on superconducting spintronics and quantum materials

SUBJECT 101

## International Relations

### History of International Organisations

Historical origins, structure, and roles of major international organisations.

### International Law

Specifics of international law creation, enforcement, and how it governs relations between nations

### International Environmental Organisations

Overview of the FAO, UNEP, UNFCCC, and treaty secretariats



### Dr Catherine MacKenzie

- Director of Studies in Land Economy at Homerton and Magdalen Colleges, University of Cambridge
- Worked as barrister and solicitor at the United Nations, World Bank, and Asian Development Bank, with expertise in international law





## PART 5

# Course & Lecturers

SUBJECT 101

### Engineering & Technology

#### Thermal Models of Energy-Efficient Buildings

Examples of insulation, thermal mass, glass, and phase change materials in enhancing thermal mass and active control systems.

#### Mechanical Ventilation and Airflow Paths

Interaction with natural convection and its impact on cooling and heating, illustrated with office examples.

#### Natural Ventilation

Applications of natural ventilation in various environments, such as offices and theatres.



#### Prof Andy Woods FRS

- Fellow of the Royal Society, Professor of Physical Sciences at the University of Cambridge, Fellow at St John's College and Director of the BP Institute
- Specialising in fluid dynamics, including volcanic systems, porous media flows, and natural ventilation

SUBJECT 101

### Architecture & Urban Studies

#### Urban Fighters: Nature of Urban Conflicts

Discussion on urban conditions crucial to national conflicts and the long-term impact of conflicts on daily life.

#### Divided Cities

Analysis of divided cities in Europe and the Middle East, understanding how ethnic, religious, and national conflicts shape these cities.

#### Urban Conflict Studies

Understanding the relationship between policy/planning issues and daily life through an architectural and spatial approach, focusing on resilience and long-term urban transformation.



#### Prof Wendy Pullan

- Professor of Architecture and Urban Studies at the University of Cambridge, Head of Department (2014-17), Fellow and Director of Studies at Clare College
- Specialising in urban conflict, heritage, and the interface of architecture with political and social issues.





## PART 5

# Course & Lecturers

SUBJECT 101

## Humanities & Social Sciences

### Sociological Theory

Major theoretical perspectives in sociology, key differences between research methods, and how to use and evaluate them.

### Media and Culture

Understanding the rise of media, its impact on society, and whether social media has transformed self-perception and social organisation.

### Cultural Sociology and Theory of Cultural Trauma

Exploration of narratives that resonate with and inspire people, linking to claims of collective trauma about past wrongs and their rectification.



### Prof Patrick Baert

- Professor of Social Theory at the University of Cambridge, Fellow and Director of Studies at Selwyn College
- Specialising in social theory, intellectual history and the sociology of knowledge, chief editor of the International Journal of Politics, Culture and Society (Springer)

SUBJECT 101

## Finance & Business

### Changing Society with Design Thinking: Prototype Testing of Business Models

Designing data collection efforts to test social risk hypotheses.

### Promoting Social Change with Systems Thinking: Measuring Social Impact

Engaging in responsible innovation using systems thinking to understand potential unintended consequences of social entrepreneurship.

### Raising Funds for Social Innovation

Effectively communicating ideas within the context of social innovation and the process of raising early-stage capital.



### Prof Matthew Grimes

- Professor of Entrepreneurship and Sustainable Futures at Cambridge Judge Business School, Academic Co-Director of the Entrepreneurship Centre
- Focusing on how individuals and organisations create and sustain positive social change through entrepreneurship





## PART 6

# Schedule

Day	Date	Activity	Stay
Day 1	16th July (Tue)	Pick-up from London airport and transfer to Cambridge; Check-in at Churchill College, campus tour	Cambridge
Day 2	17th July (Wed)	Opening ceremony, mixer with current students; Cambridge library registration, guided city tour	Cambridge
Day 3	18th July (Thu)	Cambridge academic courses 1; Visit to King's College, punting on the River Cam	Cambridge
Day 4	19th July (Fri)	Cambridge academic courses 2; Tutor group session 1	Cambridge
Day 5	20th July (Sat)	Cambridge academic courses 3; Visit to the Cambridge Science Park and the Cavendish Laboratory	Cambridge
Day 6	21st July (Sun)	Cambridge academic courses 4; Tutor group session 2	Cambridge
Day 7	22nd July (Mon)	Cambridge academic courses 5; Visit to the Fitzwilliam Museum, University of Cambridge	Cambridge
Day 8	23rd July (Tue)	Cambridge academic courses 6; Tutor group session 3	Cambridge
Day 9	24th July (Wed)	Cambridge academic courses 7; Excursion to the ancient town of Ely and guided tour of the Ely Cathedral	Cambridge
Day 10	25th July (Thu)	Self-study and assessment/presentation prep session; Assessment/Presentation, formal dinner	Cambridge
Day 11	26th July (Fri)	Visit to Oxford and meet current students; College guided tour at Christ Church, University of Oxford	London
Day 12	27th July (Sat)	Central London guided tour; Guided visits to the National Gallery and the Houses of Parliament	London
Day 13	28th July (Sun)	Visit to UCL, LSE and meet current students; Guided visit to the British Museum	London
Day 14	29th July (Mon)	Drop-off at London airport for flight home	





## PART 7

# Enrolment & Pricing

ENROL NOW

3,800 GBP | 37,000 HKD | 6,400 SGD

for both students and parents for the entire UK itinerary covering **15 days and 13 nights**

**including** full accommodation, breakfast, course training fees, practical venue fees, course materials including schemes of work, handouts, and completion certificates, social activities, visits and day trips to Oxford and Cambridge, airport transfers, and 24-hour security and management.

**not including** visa fees (if applicable), return airfare, and insurance (students should purchase short-term travel insurance independently).

Students will receive an invitation and accommodation proof to arrange their own visas and insurance upon payment of fees.





## PART 8

# About & Contact

ENROL NOW

## Unlocking Potential, Paving Futures

Wenjong Consulting is founded by a group of Oxbridge, UCL, Imperial and LSE graduates. Registered in China and BVI, we are a boutique consultancy that offers top-tier and tailored services to unlock educational and life opportunities for you.

We have over 6 years of experience in organising a wide range of cultural and educational tours and events, including our academic programmes held at some of the world's most prestigious universities.



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