CAMBRIDGE CAREERS MASTERCLASS:

STEM & ENGINEERING

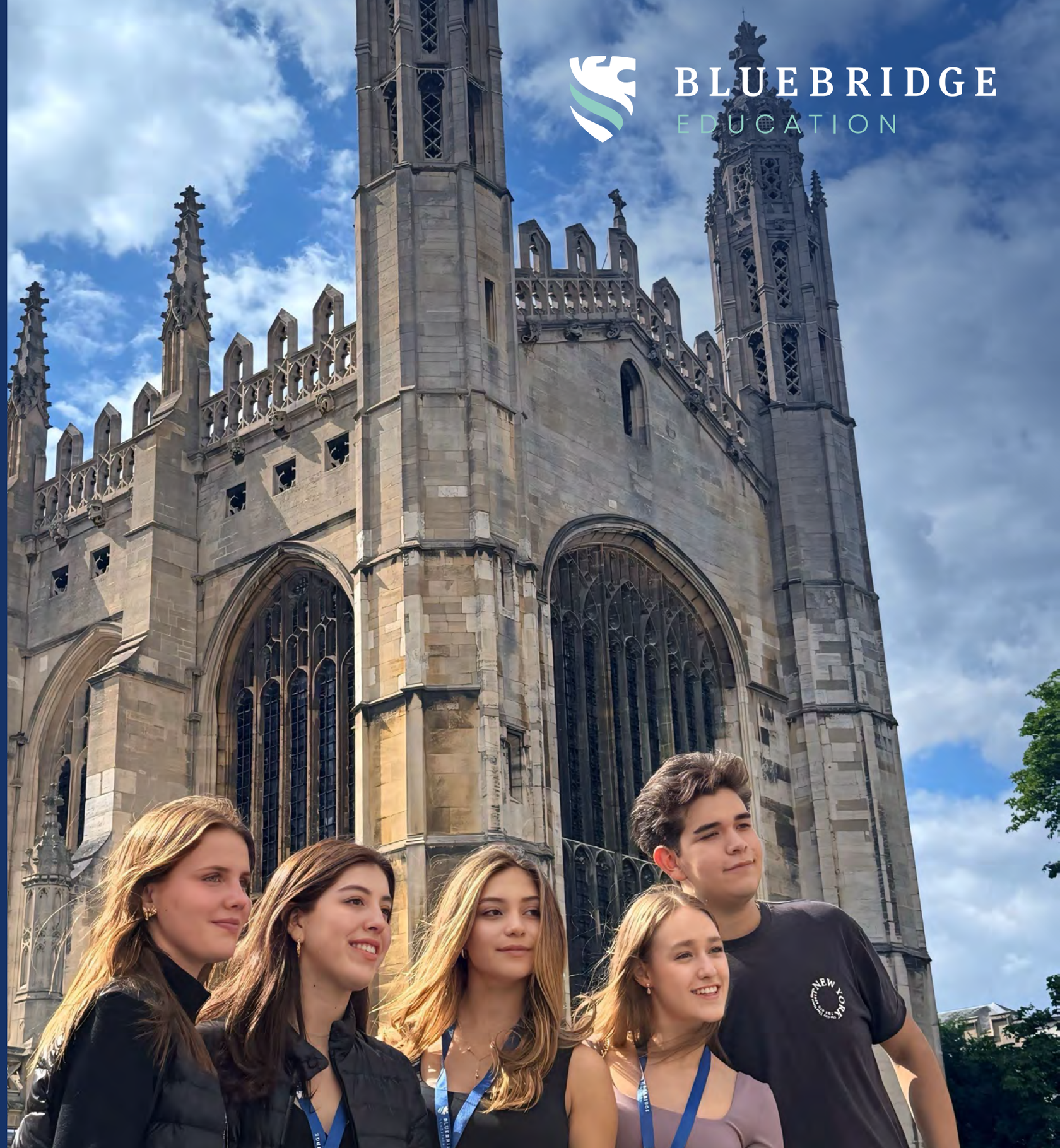
for High School Students 16-18 y.o.

| 18 - 31 JUL, 2027 |

STEM & ENGINEERING

HOMERTON COLLEGE
UNIVERSITY OF CAMBRIDGE

BLUEBRIDGE
EDUCATION



STEM & ENGINEERING

Discover how mathematics, science and engineering shape the technologies transforming our world.

The STEM & Engineering pathway introduces students to scientific principles, mathematical thinking, engineering challenges and technological innovation.

Through an interdisciplinary approach combining STEM, Computer Science, AI and Biomedical Research, students explore how scientific discoveries contribute to emerging technologies, engineering innovation and real-world solutions.

The programme develops analytical thinking, creativity and problem-solving skills while helping students explore future academic opportunities in science and engineering.

Your Academic Focus

Mathematics & Applied Thinking

Explore how mathematical concepts and reasoning can be applied to understand real-world challenges and solve practical problems.

Physics & Quantum Science

Discover fundamental physical principles and how quantum physics contributes to emerging technologies.

Engineering & Innovation

Explore how engineering principles drive technological development and innovation.

Computer Science & AI

Discover how computing and AI support scientific research and innovation.

Biomedical Innovation

Explore how scientific advances contribute to biomedical research and healthcare technologies.



A college setting. A fresh perspective.

Homerton College, University of Cambridge

HOMERTON COLLEGE
UNIVERSITY OF CAMBRIDGE

Your two weeks, in perspective.

Discover how scientific ideas become real-world innovations, from fundamental physics and applied mathematics to the technologies shaping our future.

01 **Global Leadership**

Develop leadership, communication, teamwork and critical thinking through interdisciplinary workshops, collaborative activities and group projects. Explore scientific innovation in a broader context, drawing connections between mathematics, physics, engineering and their applications across different fields.

02 **Research Skills for Academic Study**

Build essential academic research, analysis and presentation skills while working towards the NOCN Level 3 Award in Research Skills for Academic Study, worth 8 UCAS Tariff points.

03 **STEM & Engineering Academic Pathway**

Explore mathematics, physics and engineering through Cambridge-style academic sessions, discussions and interactive learning.
Develop an understanding of how scientific principles contribute to technological innovation and practical solutions, while gaining broader perspectives through related subjects such as Computer Science, Artificial Intelligence and Biomedical Research.

Certificate of Completion

From Homerton College, University of Cambridge, recognising successful completion.

8 UCAS Tariff Points

Via a recognised Level 3 qualification in Research Skills.

Take the next step

~~£6400~~ £5950

2 WEEKS | SUMMER TERM

EARLY BIRD DISCOUNT

BOOK BY 15 DEC 2026

What Will You Gain?

- A deeper understanding of mathematics, physics, engineering and their practical applications
- Stronger analytical thinking, scientific reasoning and problem-solving skills
- Greater confidence in exploring STEM and Engineering-related subjects at university

HOMERTON COLLEGE
UNIVERSITY OF CAMBRIDGE

LEARN FROM LEADING MINDS

Please note: Specific lecturers may vary. Courses are delivered by qualified professionals, including PhD holders and researchers, university lecturers, and industry experts, depending on availability and course structure.



Dr Scott Annett

Dr Scott Annett is a Fellow of Robinson College and a Bye-Fellow of Homerton College, University of Cambridge. He is the Senior Tutor at Robinson College, where he oversees students' academic progress, mentoring, and admissions at both undergraduate and postgraduate levels.

As an Associate Professor of English, Dr Annett has extensive experience in teaching and academic leadership at Cambridge. He is a CELTA-qualified English language teacher and has recently completed a Postgraduate Certificate in Teaching and Learning in Higher Education. At Homerton College, Dr Annett is the Education Director for the Homerton International Programme. In this role, he leads both international programmes for students and Professional Development Programmes (PDP) for executives and professionals, bringing together Cambridge's academic traditions with modern educational practice.



Mark Andersen

Mark Andersen is a globally recognised consultant and executive coach with 25+ years in financial services, compliance, and organisational leadership. A former investment banker and trading director, Mark has trained and coached professionals across 60+ countries, from C-suite to emerging talent. His work spans Anti-Money Laundering, Financial Crime Compliance, HR transformation, and global offshoring projects. He has served as Global Head of Learning and Development for major Russian investment banks, Middle Eastern Sovereign Wealth Funds, and international sporting organisations.

His consulting credentials include advising governments on financial crime prevention and HR governance. Mark is equally comfortable coaching Board members and designing induction programmes, reflecting his ability to translate strategy into actionable capability at all levels. Mark often teaches on Professional Development Programmes at Homerton College, University of Cambridge.



Dr Alex Smeets

Dr. Alex Smeets is the founder of Cambridge Innovation Solutions and Cambridge Funding Solutions, offering consultancy services to entrepreneurs, small businesses, and universities.

He is an Associate of Cambridge Enterprise, where he contributes to its International Outreach Programme, helping global institutions learn from the Cambridge Phenomenon.

Alex is also affiliated with St John's Innovation Centre, supporting early-stage knowledge-based businesses, and is a registered Growth Coach for the UK GrowthAccelerator service. With a PhD in Materials Science from the University of Cambridge, he has a background in R&D before transitioning to innovation, entrepreneurship, and knowledge commercialisation.



Prof. Pietro Lio

Professor Pietro Liò is a Full Professor at the University of Cambridge, specialising in Computational Biology and a member of the Artificial Intelligence group. He holds an MA from Cambridge, a PhD in Complex Systems and Non-Linear Dynamics from the University of Firenze, and a PhD in Theoretical Genetics from the University of Pavia.

His research focuses on using AI and machine learning to develop models that integrate multi-scale biological and clinical data to address personalised and precision medicine. He is particularly interested in Graph Neural Networks, AI-based medical digital twins, and decision support systems.

He is a Fellow at Clare Hall College, a member of the Cambridge Centre for AI in Medicine, ELLIS, and the Academia Europaea. He also teaches Geometric Deep Learning and serves on several key committees, including the MPhil in Computational Biology programme.



Dr Tom Crawford

Lecturer in Applied Mathematics, Robinson College, University of Cambridge | Fellow, St Edmund Hall, University of Oxford

Dr Tom Crawford is a mathematician, educator and award-winning science communicator, known for making mathematics engaging and accessible to audiences worldwide.

He teaches Applied Mathematics at Robinson College, University of Cambridge, and is a Fellow by Special Election at St Edmund Hall, University of Oxford, where he also serves as Public Engagement Lead in the Department for Continuing Education. Tom completed his PhD in Applied Mathematics at the University of Cambridge, specialising in fluid dynamics. He is the creator of Tom Rocks Maths, a popular educational platform with over 25 million YouTube views, and has appeared on the BBC, Numberphile and Channel 4's Countdown.

HOMERTON COLLEGE
UNIVERSITY OF CAMBRIDGE

PREPARE FOR YOUR FUTURE UNIVERSITY LIFE

SAMPLE SCHEDULE

MONDAY

Meet the Team & Introduction

8 am – 9 am
Breakfast in College
9 am – 9.30 am
Group Photograph
9.30 am – 12.15 pm
Welcome and Icebreakers Class
Meet the Team
Learn what lies ahead
12.15 pm - 2 pm
Lunch in College
2 pm – 4.45 pm
Campus Tour of Cambridge, including the history of Cambridge and notable sights
Explore the city of Cambridge
Learn the University History
See the most famous Cambridge Colleges
6 pm – 7 pm
Dinner in College
7 pm – 8 pm
Pathway Class

TUESDAY

Full study day

8 am – 9 am
Breakfast in College
9.30 am – 12.15 pm
Research Skills for Academic Study
Work towards NOCN Level 3 Award, worth 8 UCAS Tariff points
Enhance your Research Skills
Prepare for University Level Research
12.15 pm - 2 pm
Lunch in College
2 pm – 4.45 pm
Global leadership Group Projects
Team Work
Research
Presentation Preparation
Multidisciplinary Approach
6 pm – 7 pm
Dinner in College
7 pm – 8 pm
Pathway Class

WEDNESDAY

Learn and Explore

8 am – 9 am
Breakfast in College
9.30 am – 12.15 pm
Excursion to Punting and King's College Chapel / Wren Library
Experience one of the most iconic Cambridge Traditions
Learn more through the cultural exploration
12.15 pm - 2 pm
Lunch in College
2 pm – 4.45 pm
Global Leadership: Debate Workshop
Enhance your Debating Skills
Improve your Speaking and Presentation Skills
6 pm – 7 pm
Dinner in College
7 pm – 8 pm
Pathway Class

THURSDAY

Explore London

FIELD TRIP TO LONDON (Lunch Bag). Entrance fees are not included for attractions
7.30 am – 8:30 am
Breakfast in College
9 am – 11 am
Depart for London
11 am - 12 pm
Guided Bus Tour through Central London
From Tower of London to Westminster
12 pm – 1:30 pm
Walking Tour: Westminster to Piccadilly
Walk through the most iconic London Landmarks
Whitehall, Westminster Square, Big Ben and Westminster Abbey, Buckingham Palace and St James towards Piccadilly
1:30 pm – 4:30 pm
Free time shopping (Packed lunch provided)
Optional: British Museum Visit
4:30 pm – 6:30 pm
Depart for Cambridge
6 pm – 7 pm
Dinner in College

FRIDAY

Grand Final Day

8 am – 9 am
Breakfast in College
9.30 am – 12.15 pm
Final Group Presentations
Pitch your Project
Presentation
Discussion
Academic Programme Closure
12.30 pm - 2 pm
Traditional Afternoon Tea & Certificate Ceremony
2 pm – 4.45 pm
Free time and shopping in Cambridge
Final walk in Cambridge
Souvenirs and Shopping
7 pm – 9 pm
Final Formal Dinner in College (Formal Hall)
Programme Closing Ceremony
Traditional Cambridge College 3-course dining
Final Pictures Together











WAKE UP IN CAMBRIDGE

Stay on campus at Homerton College, University of Cambridge, one of Cambridge's largest and most diverse Colleges, with more than 250 years of history.

Your stay includes:
EN-SUITE ROOM · COLLEGE DINING · AFTERNOON TEA · FORMAL DINNER · CAMPUS LIFE





More details on accommodation at Homerton College:
homerton.cam.ac.uk/homerton-conferences-and-events/guest-accommodation

MORE THAN THE CLASSROOM

Activities included in the programme:

- Excursion to London
- Campus Tour of Cambridge, including history of Cambridge and notable sights
- Oxford / Bicester Village
- Visit to King’s College Chapel / Queen’s College
- Punting
- Group Sports Competition
- Botanic Garden Visit
- Traditional Afternoon Tea in College
- Traditional Formal College Dinner
- A Variety of Daily Evening Activities



BE INSPIRED.
BE CAMBRIDGE.

Cambridge Careers Masterclass: STEM & Engineering

HOMERTON COLLEGE
UNIVERSITY OF CAMBRIDGE

18-31 Jul 2027
Summer Term

~~£6400~~ **£5950**
Book by 15 Dec 2026

16-18 Y.O.
Students' age

B2+
Upper-intermediate

Book Now! book@bbegroup.co.uk

INCLUDED:

- Programme tuition
- Course materials
- Accommodation
- Meal plan, including Afternoon Tea and Formal College Dinner
- Excursions
- Official College Class Photo
- Programme Certificate from Homerton College, University of Cambridge
- Branded Backpack
- NOCN Level 3 Award in Research Skills for Academic Study Qualification

BLUEBRIDGE
EDUCATION

BlueBridge Education is a trusted partner with two Colleges and several student societies at the University of Cambridge