

OXFORD ACADEMY OF EXCELLENCE

EDUCATE TO INNOVATE



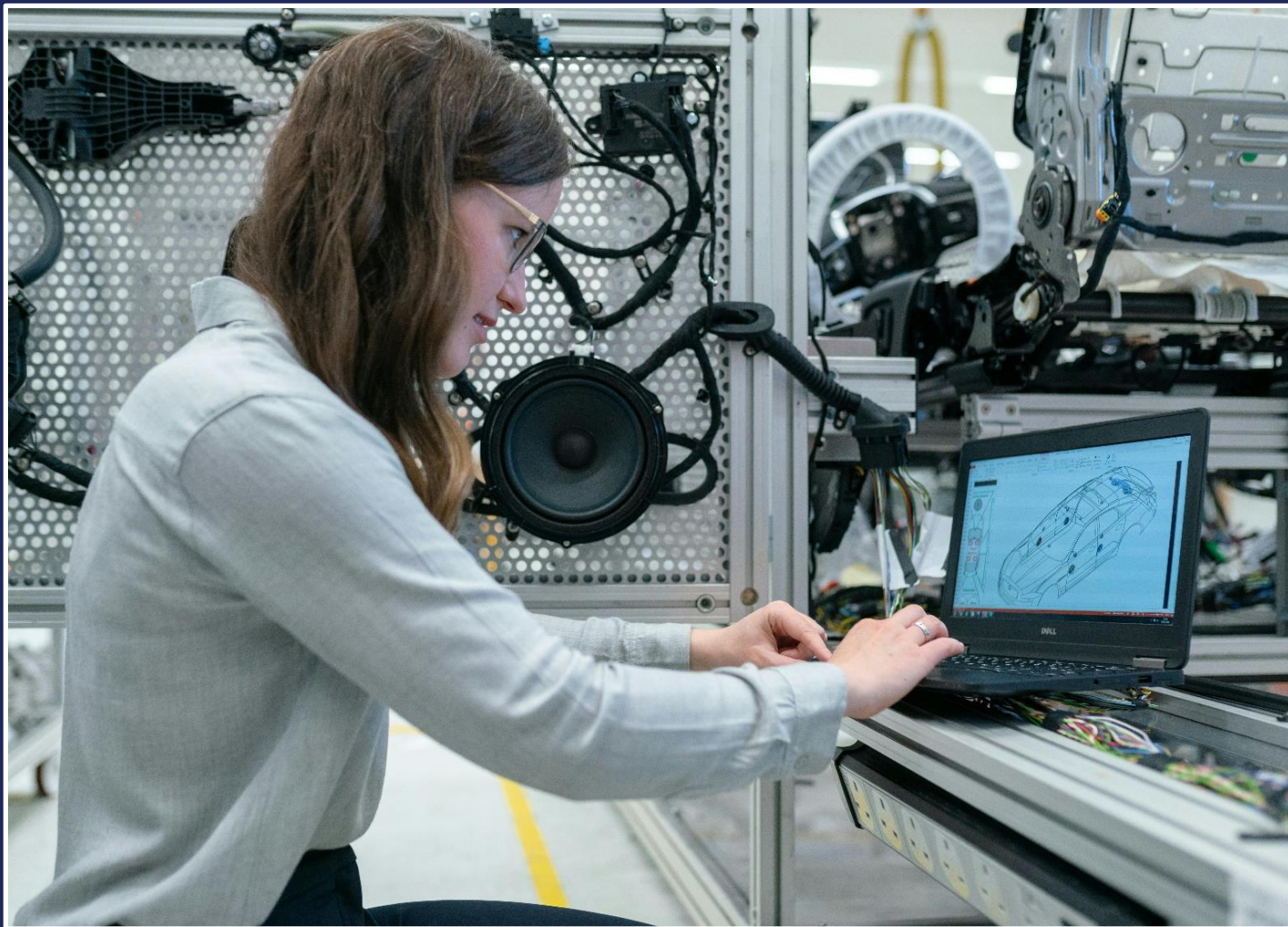
FUTURE ENGINEERS PROGRAM

IMMERSE YOURSELF IN ENGINEERING

📍 LONDON | OXFORD | CAMBRIDGE

COURSE OVERVIEW

Embark on a journey into the dynamic world of engineering! The **Future Engineers Program** is designed to ignite your curiosity, deepen your knowledge, and equip you with hands-on skills needed for a future in engineering.



WHY CHOOSE US?

Our program offers a comprehensive, immersive experience that prepares aspiring engineers for the challenges and excitement of the field:

Hands-On Engineering Experience

Engage in projects, simulations, and real-world tasks that bring engineering concepts to life.

Engineering Design Project

Apply your learning to solve real-world challenges with guidance from top engineers.

1:1 Personalized Project

Pursue a customized project aligned with your interests, working alongside mentors on cutting-edge topics inspired by top universities and industry leaders.

University & Career Support

Receive guidance on subject choices, work experience, and powerful interview techniques to kickstart your engineering journey.

Learn from Industry Experts

Study under experienced professionals who bring insights from top engineering firms and leading universities.

Explore Diverse Engineering Disciplines

From mechanical and structural to aerospace and automotive engineering, discover the fields that drive innovation and modern technology.

Project Presentation & Feedback

Present your projects, receive expert feedback, and demonstrate your skills in a professional setting.



Reference Letters

Based on individual performance and project work, students may receive personalized reference letters from mentors, providing a valuable addition to university and career applications.

Experience Oxford, Cambridge, & London

Enjoy three full-day excursions during the program—one to Oxford, one to Cambridge, and one to London. Tour iconic law schools, historic legal sites, and courts, with some free time to explore these prestigious cities.

EXPLORE OUR CURRICULUM

The Academic Insights curriculum combines fundamental engineering concepts with practical applications, giving you a head start in your engineering education. Dive into core modules designed to provide a strong foundation in various engineering disciplines.

MODULE TITLE	MODULE DECRPTION
Module 1: Foundations of Structural Engineering	Discover the foundational principles of force, motion, and energy inspired by top universities and industry pioneers. You will learn about essential concepts in structural design, such as load-bearing structures, material properties, and the principles needed to understand earthquake resistance, bridge load capacity, and other core topics in structural engineering.
Module 2: Introduction to Mechanical Engineering	Explore the core principles of mechanical engineering through hands-on challenges inspired by top universities and industry leaders like Tesla, Formula 1, and MIT. In this module, you'll delve into energy efficiency, aerodynamics, and fluid mechanics, learning how these concepts shape innovations in automotive and industrial design. Activities include optimizing an electric vehicle powertrain to enhance battery efficiency, designing aerodynamic cars for speed, building hydraulic arms to understand fluid power, and testing braking systems to study friction and force. This module combines theory and application to tackle real-world mechanical engineering challenges.
Module 3: Introduction to Aeronautical and Aerospace Engineering	Step into the world of aeronautics and aerospace, inspired by research and innovation from top institutions and industry leaders. This module covers essential principles of flight dynamics, aerodynamics, and materials used in aircraft and spacecraft design. You'll learn how concepts like lift, drag, and thermal protection impact the design and performance of gliders, Mars rovers, and heat shields. This foundational knowledge prepares you for immersive activities, including flight simulations and structural testing for space exploration.
Module 4: How to Become a Successful Engineer	Explore the essential steps to building a successful career in engineering, guided by insights from top universities and engineering professionals. This module provides practical advice on academic pathways, skill development, and career preparation, including subject choices, CV building, and interview techniques. You'll receive guidance on how to stand out in the competitive field of engineering, gain hands-on experience, and position yourself for future success in this dynamic industry.

REAL-LIFE ENGINEERING EXPERIENCE

Experience what it's really like to be an engineer through immersive, hands-on projects. With personalized mentorship, you'll tackle real-world challenges and bring engineering concepts to life in exciting and practical ways.



Structural Engineering	Design earthquake-resistant buildings, test wind-resistant towers, and construct load-bearing bridges.
Mechanical Engineering	Optimize electric vehicles, explore aerodynamics, build hydraulic mechanisms, and test friction-based braking systems.
Aeronautical Engineering	Create flight-ready gliders, program Mars rovers, design heat shields, and engage in the AeroLab Simulation for a realistic experience in aviation and flight dynamics.
1:1 Personalized Project	Choose a project aligned with your interests and work with a mentor to explore cutting-edge technologies and concepts, inspired by leading universities and industries.
Professional Skills	Learn impactful subject choices, build a standout CV, develop interview techniques, and get career tips from industry experts.

Each of these experiences combines theory with practice, ensuring you gain essential skills and insights that will set you apart in your engineering journey.



PRACTICAL EXPERIENCES AND EXCURSIONS

- Experience engineering concepts firsthand with visits to two of the most inspiring institutions and cutting-edge innovation sites.
- **Imperial College London’s Engineering Labs:** Tour one of the UK’s top engineering faculties and explore cutting-edge research facilities where tomorrow’s engineering innovations are developed.
 - **London Science Museum – Engineering Hall:** Discover engineering marvels from aerospace to industrial robotics in this interactive exhibit showcasing the evolution of technology.
 - **Cambridge Engineering Department:** Tour Cambridge’s renowned engineering department, gaining insight into advanced research in mechanical, structural, and aerospace engineering.
 - **Aerospace Museum in London:** Explore aircraft models, interactive exhibits, and the science behind flight at this museum, which highlights the past, present, and future of aeronautics.
 - **AeroLab Simulation Experience: Aviation and Flight Dynamics.** Experience the thrill of aviation and flight control through the AeroLab Simulation. You will use flight simulators to understand the basics of aircraft controls, flight stability, and aerodynamics in a hands-on, immersive environment.

	WEEKEND PROGRAM	2-WEEK SUMMER PROGRAM (MOST POPULAR)
Dates	January, March, April, May, June	July or August
Length	2 days	Up to 2 weeks
Location	In-person in London, Online	In-person in London, Oxford, or Cambridge
Residential	Non-residential	Residential

EXCLUSIVE FEATURES

FEATURE	WEEKEND PROGRAM	2-WEEK SUMMER PROGRAM
Hands-On Engineering Experience (Simulations, Projects, Real-World Tasks)	✓	✓
Engineering Design Project	x	✓
1:1 Personalized Project with Mentor	x	✓
University & Career Support (Subject Choices, CV Building, Interview Skills)	✓	✓
Insights from Industry Experts	✓	✓
Exploration of Diverse Engineering Disciplines (Mechanical, Structural, Aerospace, etc.)	✓	✓
Project Presentation & Expert Feedback	x	✓
Letters of Recommendation from Mentors	x	✓
Full-Day Excursions to Oxford, Cambridge & London	x	✓
Foundations of Structural Engineering	✓	✓
Introduction to Mechanical Engineering	✓	✓
Aeronautical and Aerospace Engineering Modules	✓	✓
Professional Skills Development (CV Building, Interview Techniques)	x	✓
Structural Engineering Projects (Earthquake Resistance, Wind-Resistant Towers)	✓	✓
Mechanical Engineering Projects (Electric Vehicles, Hydraulic Systems, Friction Testing)	x	✓
Aeronautics and Flight Dynamics Projects (Gliders, Mars Rovers, Flight Simulations)	x	✓
Visits to Top Engineering Institutions (Imperial College, Science Museum, Aerospace Museum)	x	✓
Network with Aspiring Engineers and Professionals	x	✓
Opportunity for Letters of Recommendation	x	✓

ALUMNI FEEDBACK

Hear from Our Alumni:

"The Future Engineers Program was a life-changing experience! I gained hands-on skills in everything from aerodynamics to vehicle powertrains, and my personalized project really helped me stand out in university applications."

– Aria Patel

"I loved the focus on real-world engineering problems. Working on wind-resistant tower design and electric vehicles gave me practical skills that I'm using in my studies today!"

– Leo Chen

"The mentors were incredible and helped me understand concepts beyond the textbook. My 1:1 project aligned with my interests in aerospace engineering, and it inspired me to pursue this field professionally."

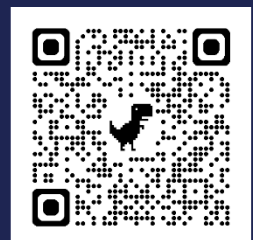
– Maya Ahmed

"This program gave me the confidence to explore engineering as a career. The skills I developed here have set me up for success, and I now have a clear vision of where I want to go."

– Noah Thompson

CONTACT

For more detailed information and to register,
please contact us at - courses@oxfordacademy.io



SCAN ME