

immerse
EDUCATION

Engineering

SYLLABUS OVERVIEW

15-18 YEARS OLD

A large, dark blue rectangular box containing the Immerse Education logo. The word "immerse" is in a large, white, lowercase, serif font, and "EDUCATION" is in a smaller, white, uppercase, sans-serif font below it.

immerse
EDUCATION

About the Programme

Immerse Education is an award-winning provider of summer experiences offering academic and career-focused programmes for high school students from worldwide, in such locations as Boston, Cambridge, London, New York, Oxford, San Francisco, Singapore, Sydney, Tokyo, and Toronto. These programmes aim to deliver engaging, academically challenging content within a university-style classroom environment.

The Career Insights programmes bring together industry professionals and university tutors in a unique learning model grounded in project-based learning. Students gain valuable insight into what it's like to study their chosen subject at an advanced level and apply their skills in real-world contexts through interactive academic sessions, practical workshops, and industry visits.

Explore Future Careers

Do you have your sights set on a particular career path? The Career Insights summer programme will introduce you to a world of opportunities in the field, using project-based learning and practical study to enhance your skills and knowledge.

On this unique programme, you will explore real- world issues relating to the context of your chosen subject, working alongside other academically talented participants to innovate and pitch groundbreaking ideas. Interactive workshops and networking events offer you the opportunity to learn from professionals in the business. The Career Insights educational model is designed to support you in finding the career path best suited to your long-term goals and ambitions. Immerse Education has worked with expert guidance counsellors, seasoned educators and experienced career advisors to design the ultimate career preparation course.

Transformative Educational Experiences





Project Based Sessions

Career Insights lessons are built on the foundation of hands-on learning. We want you not just to retain knowledge, but also to apply your newfound understanding to real-world, practical examples as you develop throughout the programme. Our Project Based sessions are designed for you to have ample opportunity to apply what you are learning to practical tasks, allowing you to further identify gaps in your knowledge and skillset while solidifying your growth and understanding.



Industry Visits

One of the most exciting parts of the Career Insights programme is the unique opportunity for participants to attend inspiring industry visits whereby they can interact and learn from industry professionals in their field of study. Industry visits take learning out of the classroom and into the real world, where students can observe and explore how the skills and knowledge built throughout the programme apply to a career in their subject. This unique aspect of our programme ensures students also gain the chance to network directly with industry professionals who may share with you opportunities you hadn't otherwise envisioned.

Why Get Career Ready?

High-quality career guidance is essential for young people making informed decisions about their future. To bridge this gap between the excellent work of schools throughout the year and practical experience, the Career Insights programme aligns with the eight Gatsby Benchmarks of Good Career Guidance, an educational framework designed to prepare students for future careers.



Careers guidance embedded in a residential experience



Encounters with employers and employees



Learning from career and labour market information



Experiences of workplaces



Addressing the needs of each student



Encounters with further and higher education



Linking curriculum learning to careers



Personal guidance

Aim of the Engineering Programme

The Immerse Education Engineering programme in London is designed to build upon your skills in science, mathematics, and problem-solving while introducing you to the interdisciplinary nature of engineering. You'll explore advanced concepts through hands-on projects and real-world applications, encouraging you to develop innovative ideas and solutions based on thorough research and practical knowledge.

Beyond academics, the programme emphasises real-world engineering practices and their impact on various industries. Through hands-on projects and case studies, you'll explore how engineering drives innovation and addresses today's global challenges. By the end of the programme, you'll have a clear understanding of university-level engineering content, insight into various degree options, and awareness of the diverse career opportunities available to future engineers.



Introduction to Engineering & Industry

Step into the world of engineering and discover its role in shaping our future. This programme introduces you to various branches of engineering and the industries where engineers solve complex challenges and drive innovation. From cutting-edge technology to sustainable infrastructure, you'll gain a deeper understanding of how engineering impacts the world and explore the exciting career paths this dynamic field offers.



15-18 YEARS



CAREER
INSIGHTS



Engineering Fundamentals

Uncover the core principles of Mechanical and Electrical engineering that power the modern world. Through hands-on activities, you'll explore the forces behind motion, the intricacies of circuitry, and the systems that bring machinery and electronic devices to life. Build a strong technical foundation to take on more advanced engineering concepts in the future.

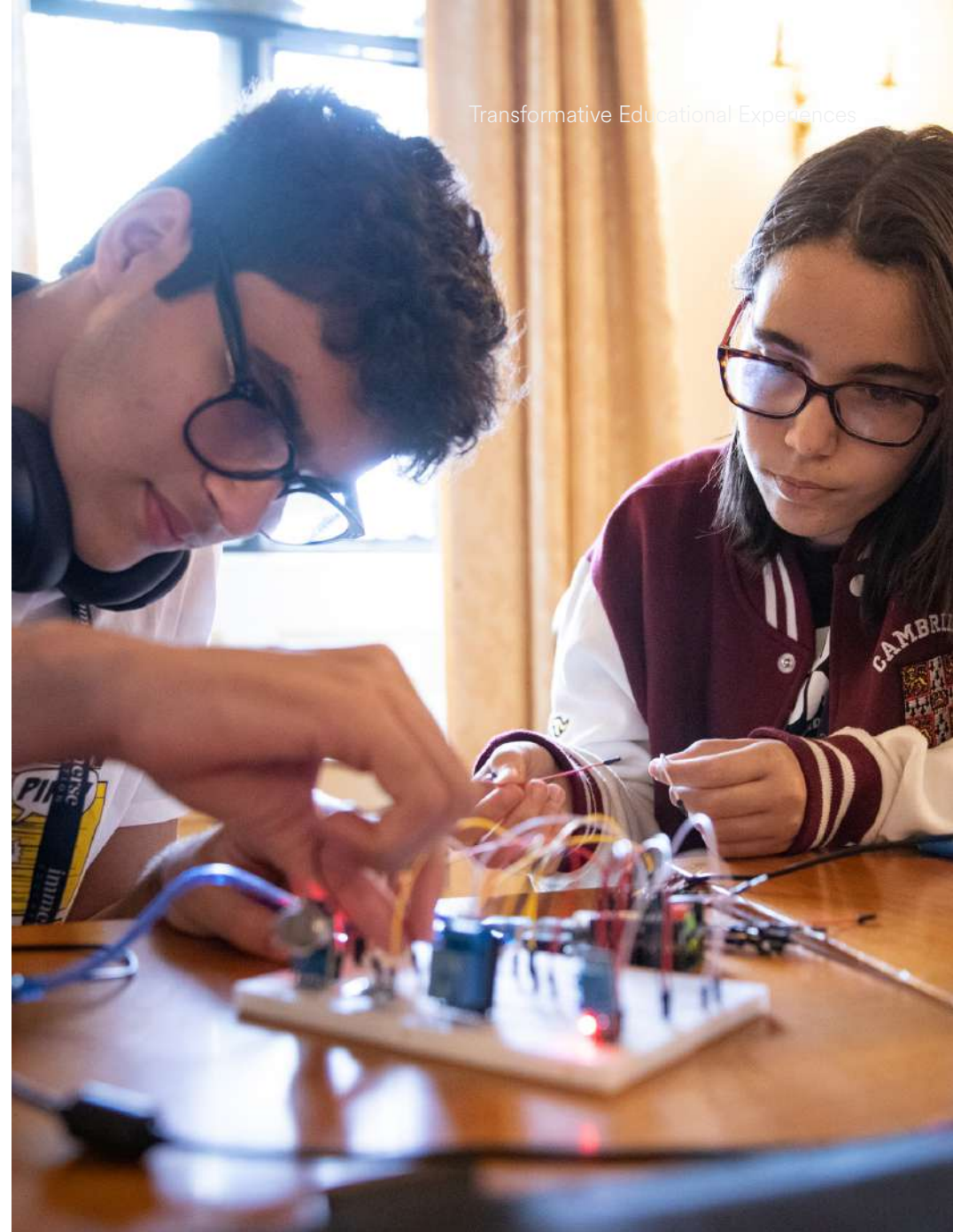


Sustainable Engineering & Modern Practices

Discover how engineers are tackling environmental challenges through sustainable and eco-friendly solutions. This part of the programme delves into renewable energy systems, green infrastructure, and cutting-edge technologies that are shaping a more sustainable future. Learn how you can be part of the solution as engineers lead the way toward addressing global challenges.

Electronic Engineering

Electronic engineering is a wide branch of engineering which applies the general principles of electromagnetism to digital circuits, sensors, actuators, mobile telecommunications, optic fibres etc. Participants will be introduced to basic electronic components and systems, and we will collaborate to briefly describe their working principles in scientific terms. We will explore digital circuits at the base of modern laptops and smartphones and assess their relative limitations. We will turn our attention to the practical design of a simple radio receiver and the working principle of the main analogue circuits.

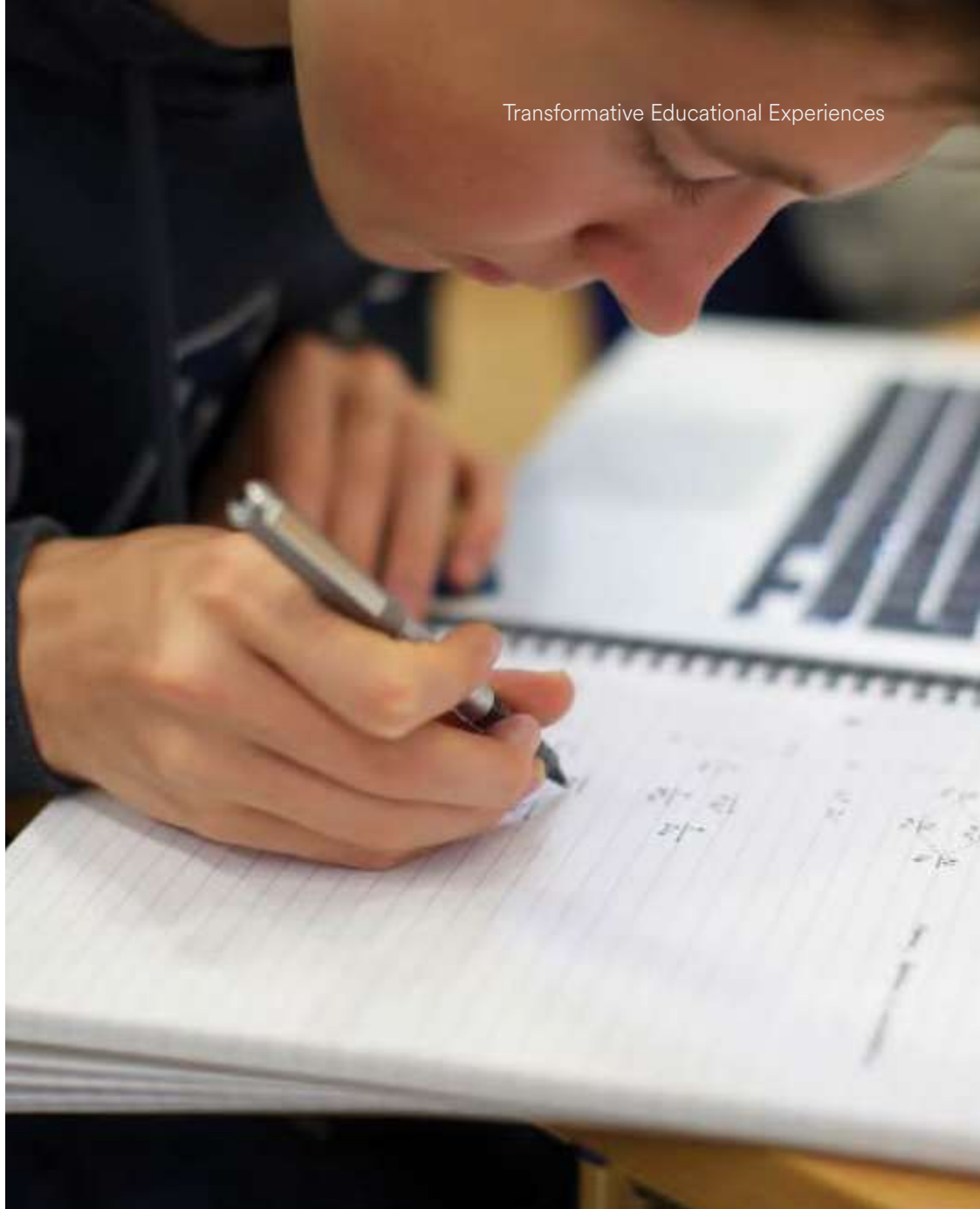


Professional Development

Bridging the gap between education and the world of work, this module offers an insight into existing and emerging careers in engineering. These sessions are made up of guest lectures and expert panel discussions with speakers from world famous institutions, and experience at leading companies like Airbus, Siemens and Rolls-Royce.

Personal Project

Throughout the fortnight, participants will be working on their own personal project. Having been provided with a brief, participants should research and prepare a presentation for their peers. This will build upon an aspect of the theory that they have learnt over the course of the programme and is also an opportunity to showcase the practical skills they have developed. The presentation is followed by questions from the audience and wider class discussion of particular points of interest. The tutor may also include feedback about the presentation in the written evaluation which is sent to participants after the programme has ended.





The Career Insights programme has been really (for lack of a better word) immersive. I think Immerse has given me a lot of clarity in terms of having a better understanding of what a career, or even university education, looks like.

Mia

Immerse Career Insights Alumni



Partnerships & Accreditation



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Inspiring Great Young Minds

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