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EDUCATION

Architecture

ONLINE INSIGHTS
16-18 YEARS OLDS
SYLLABUS OVERVIEW

About Immerse Education

Immerse Education is an award-winning provider of exceitonal academic programmes, designed for ambitious 16-18 year olds from around the world.

The aim of these programmes is to provide participants with academically challenging content that develops their understanding of and passion for their chosen discipline. Through academic sessions, the programmes also offer young students unique and valuable insights into what it would be like to study their chosen subject at university.

This Syllabus Overview provides a summary of the topics and subject areas that participants can encounter during their studies with Immerse. It has been carefully created by our expert tutors who are members of faculty at world-leading universities, and who have experience in teaching undergraduate students.

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Academic Sessions

The academic sessions at Immerse are arranged into modules to enable participants to explore a broad range of topics over the course of two weeks. The modules included in this syllabus overview are indicative but not prescriptive.

Tutors include their own specialisms and also focus on any particular areas of interest expressed by participants within the class. They may choose to provide further detail on a specific topic, or they may include new material and information that builds on the knowledge already developed during the programme.

Personal Project

Each programme includes an element of individual work, generally termed the 'Personal Project'. This can take many forms but is commonly an essay or presentation delivered on the final day of the programme. Participants will receive feedback on this work which may also be mentioned in the participant evaluation which is provided in writing by the tutor once the programmes have ended.

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Preparatory work

Some tutors may ask participants to complete some preparatory work, such as reading or a series of exercises in advance of the programme. Participants are strongly encouraged to complete this work since it will be included in the opening sessions of the programme. Any preparatory tasks will be provided in advance of the programme directly to the participant.

Academic Difficulty

As all of our programmes are designed to provide a unique introduction to advanced material, the syllabus will be academically challenging at times.

This is something to be excited about and all of our tutors will encourage and support participants throughout the programme. Immerse Education aims to develop every participant regardless of ability, and our tutors will adapt their teaching to individual needs.

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Online Insights

The Immerse Education Online Insights programmes bring the highlights of our flagship residential programmes onto an online teaching platform, accessible from anywhere. Lessons are provided by our teaching faculty – academics from the world's leading universities, including Cambridge University and Oxford University.

Students receive a combination of subject-based tuition, one-to-one tutorials, future skills workshops and social activities with students from around the world.

Learning Platform

We use one of the most accessible and reliable online learning platforms: Zoom for Education. This ensures that all students have a reliable experience connecting with both the tutor and other students to ensure the best possible experience.

Winnie, 2020 Online Participant

My tutor was really helpful, understanding and constructive in the feedback he gave. In addition to the lectures and guidance on how to properly plan and structure my writing, the biggest help I received was the support and confidence I gained.

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Aim of the Architecture Programme

Architecture is a highly-skilled multidisciplinary field and the variety of career pathways available make it a very rewarding discipline to explore. However, it can be difficult to gain insight into the study of this subject before committing to a 7 year degree at university. The aim of the Immerse Education Architecture programme is therefore to provide participants with clear insight into the life of an architecture student, and the career potential that the profession can offer. Participants develop their theoretical understanding of the key principles behind architecture, and crucially build a range of practical skills as they develop a portfolio of sketches.

Introduction to Architecture

The opening session is a chance for participants to assimilate to the university style of teaching as well as learning a little more about their fellow classmates. The introductory lecture is intended to give an overview of what the study of architecture is at university level and will explore the foundations of current practice. Discussion will focus around individual areas of interest within the field of Architecture and any previous experience or insights that participants can bring to bear on the programme.

Plan

The purpose of this session is to get to grips with the foundations of architecture by examining some of its earliest examples. This enables participants to begin locating their architectural thinking in relation to some theoretical and historical grounding and also provide a starting point for further discussions. As the plan is perhaps the primary form of architectural depiction this will be examined in reference to the historical precedents previously discussed and then participants will apply their learning by constructing their own plan of their 'found place'.

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Structures and Materials

Whatever definition of architecture one uses, it is widely acknowledged to include at least two key features: it is made of 'stuff', and it doesn't fall down. But the combination of these two aspects—the materials that are used and the structure that is used to prevent those materials falling to the ground—are often all that is required to give architecture its aesthetic and communicative effects. After an introductory session in class, students will explore some of the great varieties of materials and structures evident in the city of Cambridge.

Elevation

The purpose of the session is to continue to trace the evolution of architectural theory through a sustained examination of the architectures generated between the 16th and 19th centuries. This will look in depth at Palladian architecture and Gothic Revival, familiarising participants with classic techniques of construction. Practical exploration will focus on the elevation, and its uses in reference to the precedents discussed. This will then inform the practical workshop in which participants will delineate their own elevations to scale using their 'found place', with particular emphasis on the use of line weights and the notations of architectural drafting.

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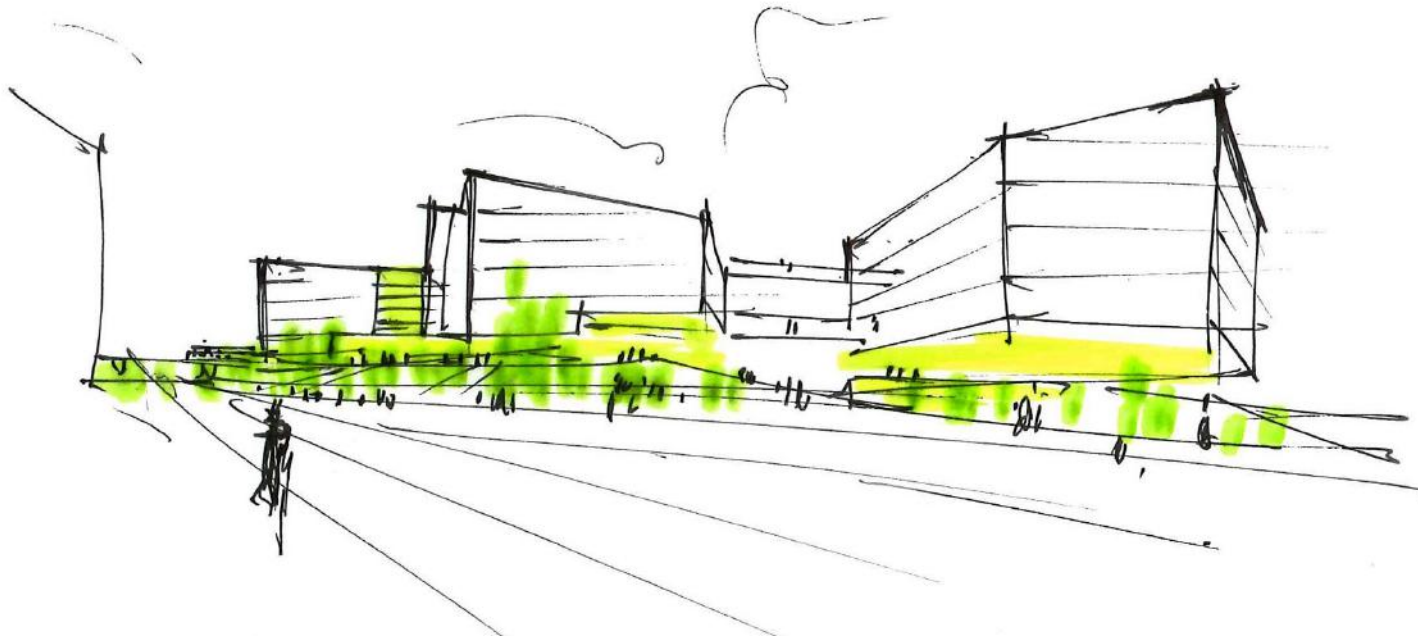
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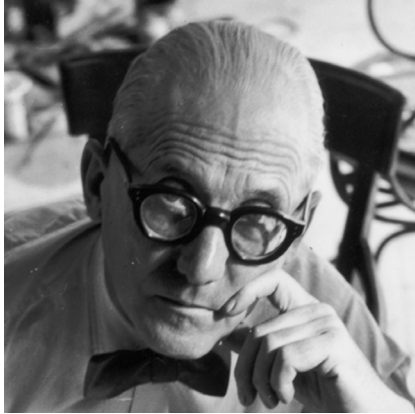
Section

This session introduces some recognisable theories of contemporary architecture through a careful examination of the work of key architects during and after the war years. Particular emphasis will be placed on the architect Le Corbusier, who was instrumental in the modern movement and whose ideas in the discipline of master planning still have relevance today. The lecture will then be followed by another workshop demonstrating the use and utility of a sectional drawing, with students producing their own; focusing on the habitation of space. Independent research to inform these sketches is warmly encouraged during the lesson.

Axonometric

The axonometric session further builds upon the history and theory lecture series, introducing participants to the trends and theoretical positions of our current era. With a strong foundation in the subject, participants will be able to now engage in in-depth discussions about the architecture around them, citing the relevant periods and theories from which they have evolved. The practical element of the module will tackle the most complicated form of drawing; the axonometric and isometric. Combined with the work of previous sessions, participants should have produced a full set of meticulously crafted drawings, that will not only be of use for their development but also for university applications.

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Design

This session begins with a lecture that draws on some of the examples given in the previous History and Theory sessions, however focus will be given to the methodology of concept to design. This will provide students with a framework with which they can begin to structure their own design propositions. In the afternoon students will be asked to bring their laptops so they spend the remainder of the session researching possible design directions with guidance from the tutor. Participants prepare to present their design idea which will call upon graphical presentation and the use of narratives to sell a proposal.

Typologies and Programming

Theories of architecture in the modern period have been dominated by two powerful ideas—on the one hand, the idea that architecture develops within the framework of certain formal 'types', that produce abstract patterns that can be developed by the architect; on the other hand, the idea that a design should respond to, support, or challenge the organisation, or 'programming', of activities proposed in a brief. Students will be introduced to the concepts of typology and programming, and use these to develop their design proposals in the afternoon, through workshop and tutorials.

Model Making

Drawing in two dimensions is one of the quickest, and also most rigorous, ways an architect can develop their ideas. But architects also develop designs and present ideas through three dimensional models. In this session, students are introduced to some basic model making principles, as well as a brief history of the ways in which architectural design has been transformed by digital modelling techniques. Combining this theory with their personal project, students are encouraged to take a first look at 3D model making.

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Personal Project

Having been provided with a brief, participants should research and prepare a design proposal. This will reflect 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. This will culminate in a 'crit', the means by which most architecture schools mark students' work. Feedback from both the tutor and fellow participants will outline the particular areas of strength in the design proposal, and also suggest any areas that can be developed to be more convincing.

Examples
of Past Projects

Past projects that participants have worked on to produce an independent design proposal include:

– Designing a punting station on the River Cam

– A new Porters' Lodge, examined through the theme of 'gateways'

– A partition screen, wall or boundary at the open-air swimming pool on Jesus Green

– An underground station in central Cambridge

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