



# Economics

SYLLABUS OVERVIEW  
16-18 YEARS OLDS

**immerse**  
EDUCATION

## About Immerse

**Immerse Education is an award-winning academic summer school provider offering programmes for 16-18 year olds in centres of academic prestige.**

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 40 hours of 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.



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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 current members of world-leading universities, and who have experience in teaching undergraduate students.



## 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 are encouraged to 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.



## 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.





## Aim of the Economics Programme

The Immerse Education Economics programme is designed to provide participants with insight into what economics is, and what it would be like to study this broad discipline at university. Participants are encouraged to explore new material in-depth and to form independent and considered opinions and ideas based on sound research and practical knowledge. By the end of the programme, participants will have a good understanding, not only of university-level content, but also the variety of degree programmes available in subjects related to economics. Beyond this, participants also explore the career opportunities available to graduates in this field.

# Microeconomics: Markets and Market Failures

What is economics really about? In this topic we will take a look at the underlying problem that economists grapple with – how to make use of scarce resources, whether they're people, natural resources, time, skills and many other things. To begin, participants will investigate how a market economy solves the distribution issue, and debate its costs and benefits. They will then discuss the problems with a completely free market (market failures) within the context of a wide range of case studies, which include pollution, health insurance and financial bubbles.

## Macroeconomics: Fiscal and Monetary Policy

In this topic, students will explore how the macroeconomy works, with examples that are reported on in the news on a regular basis. Considering the real economy (and the interaction between aggregate supply and demand), we will discuss how policymakers can influence the macroeconomy via fiscal policy and posit our own suggestions to current issues. The topic will also include monetary policy – how does the Bank of England and other central banks influence the macroeconomy by using money supply and interest rates? This will be linked with a discussion about the current financial crisis and examples taken from the Great Recession.







## The Economics of Trade

With discussions in the UK about post-Brexit trade deals, what exactly are the benefits to trade and how has this impacted the Brexit negotiations? Students will be introduced to comparative advantage theory – why countries can benefit from trade, and why there can be winners and losers from trade. This topic will also include trade policy themes – what are the benefits from trade protection or free trade? How is trade implemented in reality and what is the impact? We will also talk about exchange rates and how they play a role within this topic.

## Political Economics

Politics play an important role in shaping the incentives that economic agents face. However, politicians also pursue self-interested goals that may be at odds with what is good for society. In this section we introduce models of voting and political competition. We investigate how the incentive structures that politicians face can negatively shape the economic and social outcomes of a country. We then apply these ideas to better understand how vested political interests and corruption can hinder the development of a country by looking at some specific examples.



# Development Economics

Why are some countries so poor and others so rich? This topic focuses on the development of economies – how some grow rapidly (such as China, Japan and South Korea) and others stagnate (many sub-Saharan African countries). Throughout the topic there will be two main debates. Firstly, why is there such a big difference between countries' incomes? What role does demographics and technology play? Secondly, we will ask which interventions can help to alleviate poverty, with a particular emphasis on microfinance and cash transfers.

## Economic History

Are there lessons to be learned from the past? Economic history allows us to illustrate economic theory using examples, which is particularly helpful for development economics and macroeconomics: how did countries become richer? Why was the UK one of the first to experience the Industrial Revolution? How did economies develop from agricultural societies to mass industrial sectors? Can we learn anything from the Great Depression of the 1930s and apply it to our understanding of the recent Great Recession?







# Financial Economics

The financial world can seem quite opaque to outsiders, but this topic should provide a good introduction to how the financial sector works – systems of borrowing, lending and investment. The value of trades made on NASDAQ in five days is equal to the annual income of the 20th richest county in the world, so it's important to understand how financial markets work. From models of retail banking to the impact of complicated financial instruments and their regulation, we'll look at how the financial system works and its impact on the rest of the economy.

## Game Theory

Since the 1950s, economics research has become increasingly dominated by game theory – a mathematical theory of how rational agents make decisions in interactive situations. In this part of the course, we will introduce some of the core concepts from the discipline: dominant strategies, iterated deletion, Nash equilibrium, mixed strategies, subgame perfection and repeated games. These concepts will be illustrated through applications (e.g., the median voter theorem). We will also test the predictions of game theory using classroom experiments.

## TOPICS LIST

# Auction Theory

Auctions can be viewed as a kind of game in which players choose how much to bid without knowing the bids of their opponents. As a result, they have been extensively analysed using the tools of game theory. In this section, we will use these tools to study a variety of auction formats: first price auctions (in which the winner pays their bid), second price auctions (in which the winner pays the second highest bid), and all pay auctions (in which everyone pays their bid even if they lose). As before, we will derive the game theoretic predictions of how people should bid and test these by conducting auctions in the classroom. Finally, we will introduce (and test) the famous 'revenue equivalence principle' – which states (roughly) that all auction formats raise the same amount of expected revenue.

# Introduction to Econometrics

In this section, we will introduce the most commonly used tools for using data to test hypotheses and estimate causal effects. We will show how multiple regression can allow researchers to control for variables that would otherwise confound one's results. In a similar vein, we will discuss the benefits of panel data to control for confounding factors that are constant over time. Finally, we will discuss what researchers can learn from methods such as randomised trials, natural experiments, regression discontinuities, and instrumental variables.







## 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 their ability to apply this to practical examples. 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.

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