

# **Summer Institute**



in partnership with:





AN OUTSTANDING SUMMER INSTITUTE IS JOINTLY OFFERED BY ORIEL COLLEGE, OXFORD AND WORLDSTRIDES | CBL INTERNATIONAL

We are delighted that you are considering the Summer Institute, which will be held at Oriel College, in the University of Oxford, and live, online, in July and August 2022.

The Summer Institute is unlike any other university-level summer programme. For over a decade, now, working in partnership with Oriel College, it has developed a unique expertise in delivering outstanding academic courses to high-achieving students drawn from around the world. The range of subjects is extraordinary – students can choose from any number of critical and fascinating topics in the Law, Business, Science, the Social Sciences, and the Humanities. What really sets the Summer Institute apart, however, is the quality of its teaching. The programme's instructors are drawn from the faculty of Oriel College and other colleges of the University. The syllabi and teaching plans that the students follow, meanwhile, are elaborated by the instructors together with the assistance of a committee of academic experts. Delivered as a blend of lectures, interactive seminars and tutorials, and student-led presentations, they offer participants an intense, high-level introduction to critical concepts and issues as well as an introduction to the way in which, for generations, students have learned in one of the world's great universities.

Participants will be issued with a Certificate and an Academic Transcript, but the Summer Institute is not just about awards. It is also an opportunity for passionate and dedicated students from very different cultures to come together and learn from experts while engaging intellectually with one another, as students have done in Oxford for over a millennium. It is also an opportunity, when not in class, for students to discover and immerse themselves in different aspects of English culture – from visiting world-renowned sites in Oxford to discovering great world cities like London, or architectural jewels like Bath.

Rugminach

Richard Michaelis, D.Phil Oxon Programme Director

# PROGRAMME INFORMATION

The Summer Institute presented by WorldStrides | CBL International, which is hosted by Oriel College, a constituent college of the University of Oxford, offers courses focusing on International & English Law, International Business & Economics, Philosophy & Politics, British Literature & History, and STEM (Science, Technology, Engineering and Mathematics). Participants choose two courses per four-week session. At the Summer Institute at Oriel College, you will attend seminar-style classes with an average group size of 30 students. Courses are overseen by an Advisory Board set up by Oriel and are led by outstanding instructors from Oxford University. Each course involves tutorials with lecturer-led interviews in small groups on topics related to the course. In addition, we invite faculty members to our evening talks during which many thought-provoking and current issues are addressed.

Our courses are open to undergraduate students up to 28 years old. If you are over 28, and are interested in our programme, please contact our team for more details.

#### **Accredited by the British Accreditation Council**

The Summer Institute at Oriel College, Oxford, is offered by Oriel College in Partnership with WorldStrides | CBL International. We are proud to announce that WorldStrides | CBL International is accredited by the British Accreditation Council.



### **COURSE OFFERINGS:**

THE PROGRAMME INCLUDES THE FOLLOWING TRACKS AND SUBJECTS

#### **INTERNATIONAL & ENGLISH LAW**

This programme is the only extensive summer programme in Oxford that focuses on International, European and English Law. The programme gives participants the opportunity to attend cutting-edge lectures and seminars. These lectures will focus on common legal issues that arise in the most complex commercial cases across borders. The delegates will learn about international transactions as well as legal practice across various jurisdictions. Changes to course descriptions, topics, programme structure, and schedules may occur depending on the availability of faculty members. The following courses have been offered in International & English Law in previous years:

#### **International Dispute Settlement**

This course provides an introduction to international conflict and cooperation, focusing on the various ways in which inter-state disputes are forcefully or peacefully resolved. The course is divided into three overarching sections: the legal and normative frameworks through which states resolve their disputes, the relative success of different conflict resolution strategies from arbitration and mediation to more coercive measures, and the role of global institutions in managing international disputes. The course will draw to a close by exploring how these global institutions could be reformed to better manage international disputes.

#### **International Trade Law**

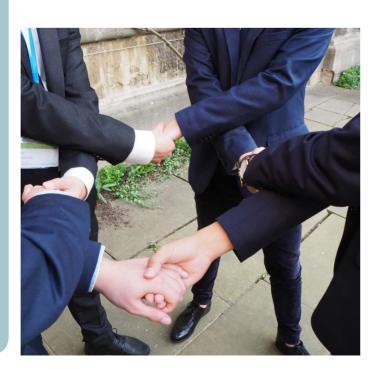
International Trade Law regulates global trade activity in goods and services, issues of intellectual property, and Foreign Direct Investment, to name a few. International trade intertwines with issues of state aid, dumping, international development and human rights. Its reach is global as it affects trade volume and sets a level playing field for countries and corporations alike. In doing so, the World Trade Organization is the designated body that administers existing trade agreements, facilitates the conclusion of new ones, and promotes the amicable settlement of disputes.

#### **International Criminal Law**

This course covers the major areas of general international law and more specifically international criminal law. The lectures cover topics on the nature and sources of international law, the law of treaties, international legal personality, jurisdiction and immunities, the use of force and the procedures for peaceful settlement of disputes, law of armed conflicts, the nature of international crime, international criminal tribunals and international criminal procedure. These subjects are considered within their broader policy contexts and with respect to recent experience.

#### **International Business Tax Law**

The course on International Taxation will introduce you to the key concepts in taxation, resulting in an in-depth understanding of the tax laws affecting international business and individuals. This course will also focus on the tax benefits and risks of cross-border transactions.



# INTERNATIONAL BUSINESS & ECONOMICS

We offer a number of courses focusing on global economic trends and international taxation, as well as behavioural and development economics. While studying in such a unique destination with classmates from all around the world, we offer delegates a rare opportunity to learn about international and theoretical economics as part of an incredible international community. Changes to course descriptions, topics, programme structure, and schedules may occur depending on availability of faculty members at the time of the programme. The following courses have been offered in International Business and Economics in previous years:

#### **Public Economics**

This course focuses on the role of the government in a market economy. The aim is to provide an understanding of the reasons for government intervention in the economy, of the different forms that government intervention may take, and of the consequences of government policies, including the response of economic agents to such policies. Therefore, the course considers both normative questions (what governments should do) and positive questions (what are the impacts of government policies). It also combines both economic theory and applications based on actual policies from around the world. Special emphasis will be devoted to the reading of empirical studies on these issues.

#### **Monetary Policy and Central Banking**

The course covers the literature on the transmission of central bank policies via the banking system and financial markets to the real economy of consumers featuring consumers and corporations. The coverage will include analysis of both conventional monetary policy and unconventional measures such as quantitative easing and forward guidance over interest rates.

All topics will be taught via lectures based on detailed slides that combine theory and empirical evidence.

# The Health of Nations: Current Challenge and Future Possibilities

This course will discuss and analyse the state of health and healthcare around the world and the challenges of the next 20-50 years. In addition, you will learn how health financing will need to adapt to an ageing population. Case studies analysing pandemics, such as SARS, flu, Ebola, and Covid-19, will be looked at in detail. New technologies and health innovations will be explored.





# PHILOSOPHY & POLITICS

The Philosophy and Politics programme is a multifaceted, interdisciplinary course that draws together two important fields of research I through which to help understand governance and the world. Our philosophy courses teach ethics, logic, and critical thinking. Politics considers the interests and intuitions that combine to form the rules and policies by which the world is governed. Philosophy and politics graduates include numerous British politicians and lawmakers. Changes to course descriptions, topics, programme structure, and schedules may occur depending on the availability of faculty members at the time of the programme.

#### **Philosophical Classics: Plato's Republic and Descartes' Meditations**

This course will offer an introduction to two of the most influential works in history of philosophy: Plato's Republic and Descartes' Meditations. In the first week. we will lead you through the text of the Republic, Plato's most famous and influential work. The dialogue is prompted by questions concerning the nature of justice, and the best kind of life we can live. These questions prompt wide-ranging discussions of the ideal state, the nature of knowledge, the nature of reality, the Theory of Forms, the structure and immortality of the soul, moral psychology, education, and the social role of arts. The study of the Republic will thus introduce you to many of Plato's central ideas and arguments, and in fact to many of the central questions of philosophy. In the second week, we will present and discuss Descartes' Meditations on First Philosophy. This is a short but foundational text of philosophy, written as a series of personal meditations in which Descartes seeks to establish a secure foundation for the whole edifice of knowledge. Some of the topics to be discussed will concern scepticism and our knowledge of the external world, the nature and existence of mind and body, the nature of judgement, and the existence of God. A true classic of Philosophy, the Meditations, written in 1641, set much of the agenda of later philosophy.

#### **Philosophy and Politics**

The course is designed to introduce students to the political concepts central to the theoretical, normative. and interpretative analysis of politics. At the core of the course the emphasis is on concepts such as liberty, justice, authority, or power, providing the foundation for understanding the nature of political thought. These concepts underpin the study of politics in general and are therefore crucial to enhancing the awareness of the relationship between political thought and action. Students are also directed towards discursive ideologies

displaying complex conceptual arrangements such as liberalism or socialism. The course is designed to develop a manifold range of skills necessary for constructing critical arguments in political theory, for working with problems of consistency and justification, for analysing the complexities of the usage of political language, for understanding the principal forms through which political thought presents itself, both as theory and as ideology, and for appreciating the main current and recent debates that command attention in

#### The Problems of Philosophy

This course will offer a selective introduction to some

of the central problems of philosophy. It will be divided in two parts. In the first week, we will focus on ethics and logic. Since its beginnings in ancient Greece, the Western philosophical reflection on how we should conduct our lives, ethics, has been closely intertwined with the inquiry into logos, 'reason' or 'areason-ing', practical and theoretical, human or divine. While ethics and logic have developed into two distinct sub-disciplines of philosophy, different philosophical approaches to normative ethics (the study of the principles of right and wrong) and 'meta-ethics' (the study of the nature and methods of ethics itself) often spring forth from different conceptions of the role that reason and argument (ought to) play in human morality, and from different assessments of the validity of certain key arguments (or alleged 'fallacies') in ethics and of the force and implications of certain 'dilemmas' or 'paradoxes'. Through a selection of texts and case studies (including Plato, Aristotle, the Stoics, Hume, Kant, Mill, Moore, Mackie), this part of the course will offer a perspective on how ethical discourse and debate were and remain deeply informed by the language and tools of logic. In the second week, we will focus on some topics of theoretical and practical philosophy. In particular, topics like scepticism, the nature of the mind, free will, and the moral permissibility (or not) of abortion will be discussed.

### SCIENCE, TECHNOLOGY, ENGINEERING



# MATHEMATICS (STEM)

The following courses are going to be offered on STEM I track this year. Changes to course descriptions, topics, programme structure, and schedules may occur depending on the availability of faculty members at the time of the programme.

#### **Materials Engineering: Dynamic Behaviour of Materials**

This course will introduce you to the effect of rapidly applied loads to different categories of solid materials. It will focus on direct industrial applications, providing the required tools fully to understand the dynamic behaviour of materials, and how it can be used within the design process of real-life

The first part of the course will introduce the concept of dynamic behaviour and wave propagation within solid materials. The second part of the course will expand the range of deformation mechanisms by including plastic and shock waves. The final part of the course will focus on the techniques used to characterise solid materials at different loading rates.

#### **Biochemistry and Molecular Biology:** Protein structure and function to **Therapy and Disease**

This course is an integrated introduction to the structure of macromolecules and a biochemical approach to protein function. We will take you through the organisation of macromolecules and study of their assembly into complexes responsible for specific biological processes. Topics addressing protein folding and function including enzyme kinetics, protein post-translational modifications the characterization of major metabolic pathways and their interconnection into tightly regulated networks. Current laboratory techniques and experimental design are discussed during the weeks and examples showing the organization of protein networks and how they relate to human diseases and therapy. There will also be an exposure to current research papers with an emphasis on viral pathogenesis to illustrate the themes discussed including vaccines and drug design. This will allow participants to build their critical analysis and apply scientific rationale to some of the latest findings in the field.

#### **Artificial Intelligence: Logic, Knowledges Representations and Ontologies**

Knowledge Representation is at the heart of the great challenge of Artificial Intelligence: to understand the nature of intelligence and cognition so that computers can exhibit human-like abilities Pioneers of the field such as John McCarthy believed that (artificial) intelligence could be formalised as symbolic reasoning with explicit representations of human knowledge given in some form of Logic. In this setting, the key challenge is to effectively represent knowledge in computers and to exploit it algorithmically to perform tasks in an intelligent way. Since its very inception, Knowledge Representation has been an inter-disciplinary field which lies at the intersection between Logic and Metamathematics, Philosophy, and Computer Science. This course focuses on general methods for representing human knowledge in Artificial Intelligence and will be given mostly from a Computer Science perspective. The course will cover not only foundations and algorithms, but also Semantic and Ontology-based Technologies and their role on modern Information Systems.

#### Quantum computing, collapse, and consciousness

This course will look at two fundamental aspects of nature and their possible connection; quantum theory and consciousness. We will cover the basics of quantum computing, the measurement problem in quantum mechanics and mathematical modelling of consciousness. The first week of the course will focus on quantum computing. We will introduce all the basic definitions from quantum theory and computation, and finish by describing Shor's quantum algorithm for the factorisation of integers. In the second week we will look more closely at the notion of measurement in quantum theory. We will discuss the measurement problem and possible solutions, focusing on collapse models. We will then discuss the mathematical modelling of consciousness and use collapse models as a possible scientific theory of consciousness. The course will only assume good knowledge of linear algebra. Some knowledge of differential equations is recommended but not essential.



#### **ENGLISH LITERATURE**

# & HISTORY



The following courses are going to be offered on English Literature this year. Changes to course descriptions, topics, programme structure, and schedules may occur depending on the availability of faculty members at the time of the programme.

#### **Modern British History**

The course will introduce you to new historical work being undertaken on Postwar British Culture. You will discuss the pivotal places in the cultural history of postwar Britain, such as Carnaby Street, the fashion centre and Mod capital of the 1960s; Abbey Road, where the Beatles recorded their groundbreaking albums 'Abbey Road' and 'Sergeant Pepper's Lonely Hearts Club Band'; and the London School of Economics, where the first student 'sit-ins' in Britain took place-and in fact, the crucible of the student revolution in 1960s Britain. The course will illuminate a a recent period in British history when British culture was at the forefront of creative ideas and global influence.

#### The Birth of the Novel

The course will introduce you to the key developments in English prose fiction in the eighteenth century, culminating in a close study of one of England's most celebrated novelists: Jane Austen. We will study the genres of the picaresque, sentimental and gothic novels to understand the literary framework which shaped Austen's distinctive literary style.

#### Shakespeare and his Age

This course studies the work of one of the world's great writers, both placing Shakespeare's plays and poetry in the context of his time, and thinking about his ongoing relevance and influence. We will explore how Shakespeare responded to the new philosophical, scientific, political, and geographical ideas of his time, and how he innovated in the theatres of London, as well as considering how subsequent generations of readers and critics have used Shakespeare to shape their philosophical and literary theories.



### **ADVISORY BOARD**

In order to ensure best academic quality, this year's summer programme will be overseen by a newly appointed advisory board from Oriel College. The board, consisting of six Fellows and Tutors of Oriel, will oversee and advise on all academic aspects of the Summer Institute including: programme curriculum, assessment approach as well as the selection of tutors.



MRS JULIANE KERKHECKER

SENIOR DEAN, FELLOW OF ORIEL AND THE GROCYN LECTURER FOR THE CLASSICS FACULTY



PROFESSOR GONZALO RODRIGUEZ-PEREYRA SENIOR TUTOR AND FELLOW IN PHILOSOPHY AT ORIEL



DR KATHRYN MURPHY
FELLOW AND TUTOR IN ENGLISH LITERATURE AT ORIEL



DR CHRISTOPHER BOWDLER
MACPHERSON FELLOW AND TUTOR IN ECONOMICS AT ORIEL



DR LUCA CASTAGNOLI

FELLOW IN ANCIENT GREEK PHILOSOPHY AND TUTOR IN PHILOSOPHY AND CLASSICS AT ORIEL



DR PAUL YOWELL
FELLOW AND TUTOR IN LAW AT ORIEL

### **OUR FACULTY**

Some Oxford University academics teaching at our Summer Institute are:



DR CHRISTOPHER BOWDLER
ASSOCIATE PROFESSOR IN ECONOMICS
ORIEL COLLEGE. UNIVERSITY OF OXFORD

Dr Christopher Bowdler is a Fellow of Oriel College, and he is also Director of Undergraduate Studies for the University of Oxford's Department of Economics. At Oriel he served as the Tutor for Admissions and Outreach from 2013 to 2015, and continues to serve on a range of college committees. He is an applied macroeconomist and has published a range of empirical papers on topics including the identification of monetary policy shocks and their transmission to the real economy and financial markets, testing open economy models of the output-inflation trade-off, and evaluating the effects of international differences in labour market institutions.



DR LUCA CASTAGNOLI

ASSOCIATE PROFESSOR OF ANCIENT GREEK PHILOSOPHY ORIEL COLLEGE, UNIVERSITY OF OXFORD

Dr Luca Castagnoli is an Associate Professor of Ancient Philosophy at the University of Oxford, and Stavros Niarchos Foundation Clarendon Fellow in Ancient Greek Philosophy at Oriel College. Having studied philosophy at the University of Bologna and the University of California, Berkeley, Luca obtained a Ph.D. in Classics from the University of Cambridge. He was a Research Fellow at Magdalene College, Cambridge, and then a Lecturer/Senior Lecturer in Ancient Philosophy at Durham University for eight years, before moving to Oxford.



DR SIMONE FALCO

POSTDOCTORAL RESEARCHER IN DEPARTMENT OF ENGINEERING SCIENCE ORIEL COLLEGE, UNIVERSITY OF OXFORD

Dr Simone Falco is a post-doctoral research associate at the department of Engineering Science of the University of Oxford and lecturer at Oriel College. His research interests comprise different aspect of the behaviour of materials under extreme loading condition, from the response of armour systems upon impact to the effect of high temperatures on the structural integrity of materials, with particular focus on the effect micromechanical features on the overall macroscopic properties of the material.



ANDREW FARLOW
RESEARCH FELLOW IN ECONOMICS
OXFORD MARTIN SCHOOL, UNIVERSITY OF OXFORD

Andrew Farlow is a Research Fellow in Economics and an Oxford Martin Senior Alumni Fellow at the Oxford Martin School. His research interests include: Pharmaceutical research and development; global health financing and delivery; innovation and technology transfer issues in global health settings; measurement of socioeconomic impact of health interventions; application of financial and risk management tools to global health analysis; market, pricing, and launch strategies, especially in resource-poor settings. The approach is highly interdisciplinary and policy-orientated, mixing science, economics, epidemiology, finance, and management practice.



DR KOBI KREMNITZER
FELLOW AND TUTOR IN MATHEMATICS
ORIEL COLLEGE, UNIVERSITY OF OXFORD

Dr Kobi Kremnitzer's areas of research are geometry, algebra and mathematical physics. He is an Associate Professor at the University of Oxford and Tutorial Fellow at Oriel College since 2009. In Oxford he has forged strong links between the research groups in algebra, geometry, number theory and math physics and with the department of computer sciences.



DR TESS LITTLE
EXAMINATION FELLOW
ALL SOULS COLLEGE, UNIVERSITY OF OXFORD

Dr Tess Little is a writer and historian, with research interests in twentieth-century Europe and the US. Her doctoral thesis examined the women's liberation movement of the 1960s and 1970s in transnational perspective through a case study of the links between the movements in the US, UK, and France. She surveyed archival material and conducted life history interviews with activists in all three countries to trace theory, protest tactics, and organisational ideas which spread across national borders. The collection of interviews will be available in future at the British Library. She also writes fiction; her debut novel, The Ninth Guest (published in North America as The Last Guest) was published in 2020.

## **EXCURSIONS**

# **Q.** CULTURAL ACTIVITIES

A perfectly balanced summer abroad programme

THE PROGRAMME IS NOT ALL ACADEMIC - YOU WILL HAVE PLENTY OF OP-PORTUNITIES TO BREAK AWAY FROM THE INTENSE LEARNING. DURING YOUR TIME OFF, THERE ARE MANY CULTURAL ACTIVITIES AS WELL AS PLANNED TRIPS TO ICONIC ATTRACTIONS AND LANDMARKS AROUND ENGLAND.

The programme has been designed to provide a balanced combination of academic content and cultural immersion. Every summer, we plan a number of activities and trips to iconic cities and landmarks in England. We want to ensure delegates have the opportunity to enjoy the rich history and culture in a range of charming cities and sites. In Oxford, participants have the opportunity to engage in a variety of popular cultural and social activities around the city. In the past, we have organised visits to the Bodleian Library, Botanic Garden, Ashmolean Museum, and Oxford Castle, traditional punting on the River Cherwell, football and cricket tournaments, pub tours, quiz nights and much more. In addition to this, we invite faculty members, industry professionals, VIPs, and other subject specialists to our Evening Talks, where a number of thought-provoking and current issues are discussed.

This map shows some of the locations our students have visited:

#### London

One of the world's great cities, London is a major hub for business, finance, culture, innovation and creativity. A multicultural city with a plethora of great sites for delegates to choose from. They could visit world-renowned museums, famous palaces, historic churches, theatres, the Tower, or simply enjoy wandering in the parks and along the Thames.



#### Cotswolds

The Cotswolds is an area near Oxford famous for its soft hills, which rise from the meadows of the upper Thames to an escarpment, known as the Cotswold Edge, above the Severn Valley and Vale of Evesham. It is famous for the bucolic beauty of its landscape and the picturesque villages, manors, and churches that pepper it.



A Roman settlement in the rolling countryside of southwest England, known for its natural hot springs, its elegant 18th century Georgian architecture, and its outsize role in the literary and artistic culture of the day. Largely built out of famous honey-coloured stone, it contains a number of historic gems, from the Roman baths to the fan-vaulted abbey.





# **PROGRAMME IMPRESSIONS**





















