



LMH SUMMER PROGRAMMES 2024

Lady Margaret Hall

A College in the University of Oxford

Inspirational programmes for those who
love learning, research, and new ideas.





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Lady Margaret Hall - Oxford



WELCOME

“Each summer Lady Margaret Hall is proud to bring together enthusiastic and intellectually curious students from across the world to study new areas of knowledge and explore different ideas and ways of thinking.

We offer an exciting range of courses, all taught by experienced academics and experts using the tutorial system, a teaching method core to the University of Oxford which centres on personalised intellectual discussion in very small classes. It is an intense and rewarding way to learn, highly effective at developing the use of critical reasoning and logical argument.

You will improve your skills of analysis and communication and gain an excellent foundation for future academic and career success. In addition, our co-curricular programme of skills sessions and guest speakers will broaden your horizons and boost your personal and professional skills.

Our beautiful college campus in leafy north Oxford will be your home for the duration of the programme. From punting on the River Cherwell to a formal banquet in the college Dining Hall, our social and cultural programme will give you an authentic taste of the unique student experience at Oxford, making friends and having fun as part of a diverse international cohort.

If you can't join us here in Oxford, all our exciting courses are available as online programmes. Whether your course is in person or online, our philosophy doesn't change – you can expect the same engaging and rewarding academic programme but the with the convenience of taking part from where you are.

In this prospectus you will find more information about our range of courses, from Artificial Intelligence to British Literature, and Psychology to Politics and Economics. In every single one you can dive deep into topics of special interest with the personalised attention of expert academics, study among like-minded students from across the world, and gain an edge for your academic and professional future.

We look forward to welcoming you to Oxford!”

Dr. Christopher Adamson
Head of Short Academic Programmes



LADY MARGARET HALL

Lady Margaret Hall is a College in the University of Oxford, founded in 1878 to provide an Oxford education to women for the very first time.



Since the first nine women were admitted in 1879 the College has grown to a friendly and welcoming co-educational community of over 700 students and nearly 50 Fellows. Throughout this history Lady Margaret Hall has remained steadfast in its commitment to diversity, inclusion, openness, and intellectual curiosity.

LMH is located in a peaceful area of splendid trees and Victorian buildings, about 15 minutes' walk from the lively city centre. The College has 12 acres of lovely grounds and gardens, where students can relax away from their studies, walk among the trees, play croquet with friends or take a punt out on the river.



THE ACADEMIC PROGRAMME

First-class teaching is at the heart of an LMH Summer Programme.

In a series of thought-provoking lectures and lively seminar discussions you will learn about cutting-edge research, expand your core knowledge, and explore new ideas and concepts among peers with diverse international perspectives and academic backgrounds.

Tutorials, the conclusion of each week's study, are an intellectual thrill. They are a unique opportunity for focused and personalised attention from an expert academic and a space for enthusiastic debate of important ideas. In groups of only two to four students, you will present and discuss your work, accept constructive criticism, and engage with the ideas of your fellow students. These rigorous academic discussions help develop and facilitate learning in a way that cannot be done with lectures alone.

The co-curricular programme provides an especially enriching learning experience beyond the classroom. Skills sessions help you to develop your personal and academic abilities, from note-taking and active reading to public-speaking and presentation skills, and guest speakers join us to provoke cross-disciplinary discussion and debate.



“The tutorials were the best hours of my academic life.”

“The tutorials were an amazing opportunity to gauge others' opinions about my essay and to listen to other students' ideas about the novels. I loved the tutorials.”

Assessment

On each three-week course students produce one piece of assessed work every week, which is submitted to the tutor and then discussed in a tutorial. At the end of each week you will receive a percentage grade for your submitted work. Each week's work counts for a third of your final percentage grade, so your final grade is an average of the mark received for each piece of work.

Academic Credit

LMH will provide a transcript of your assessed work, and can send this directly to your home institution if required. LMH Summer Programmes are designed to be eligible for academic credit, and we will communicate with your home institution to facilitate this as needed. As a guide, we recommend the award of 15 CATS / 7.5 ECTS / 4 US Credits for each 3-week course.

From a student in Artificial Intelligence:

“Reinforcement Learning and Generative AI were amazing - I loved them! In both lectures and seminars the tutors go above and beyond.”

From a student in English Literature:

“The wide range of topics allowed us to find something to our personal liking every week.”

From a student in PPE:

“The careful deconstruction of theoretical assumptions during our seminars enabled us to master them properly. My tutor gave me multiple intellectual stimuli and helped me to improve my writing.”

From a student in Psychology:

“Thank you for providing this opportunity to understand the Oxford style of learning.”



YOUR SUMMER IN OXFORD

Known as the ‘city of dreaming spires’ after its stunning array of church and college architecture, Oxford has inspired artists, writers, and thinkers for over 900 years, and you too can experience this remarkable city.

Here you will find medieval pubs bustling with students and cyclists bouncing along cobbled streets; you will visit beautiful colleges and world-class museums; and you will make friends and have fun as part of a diverse international cohort of students.



Lady Margaret Hall, or ‘LMH’ as it is known to students, will be your home away from home during the programme.

Set amongst 12 acres of beautiful grounds around 15 minutes’ walk from the lively city centre, at LMH students can find a haven for quiet study. You can work in the College Library, and then relax in the common room or the extensive grounds where there is space for football, tennis, and croquet.

This experience, of belonging both to the lively city of Oxford and to the private and unique oasis of the college, is part of what makes student life at Oxford so special.

You will stay in College accommodation onsite at Lady Margaret Hall, in en-suite bedrooms normally occupied by our undergraduate students during term time.



You will have breakfast each day in the Dining Hall, and lunch and dinner will also be provided in College Monday to Friday.



On the final evening of each three-week session there is a Formal Hall, when students dress up in their finest outfits for a special banquet.



“The accommodation was fantastic! It was always super clean, very comfortable, and I loved the snacks that they would provide.”



THE SOCIAL & CULTURAL PROGRAMME

The academic programme is the fundamental core of an LMH Summer Programme, and you will have a busy schedule of lectures, seminars, tutorials, and independent study time.

Outside of your study time, however, our Residential Advisors are here to help you get to know other students, explore the city, and have an authentic experience of life as a student at an Oxford college.



The “RAs” run social events through the week, from tea-breaks during a study afternoon, to evenings out for crazy golf or tenpin bowling.

You will take part in fun activities that are typical of Oxford and British student life, such as punting on the River Cherwell or joining a pub quiz night.



You will also have the opportunity to take part in a fulfilling cultural programme.

You may visit some of Oxford's world-renowned museums, such as the Natural History Museum and the Ashmolean Museum, or take a tour of the most historic parts of the Bodleian Library.

You will also take cultural excursions away from Oxford to explore other English cities, such as London, Bristol, and Bath.

“The quiz night and the dance night were particularly enjoyable for me!”

“I really enjoyed the trip to Bletchley Park to see the stories about the codebreaker machine and Alan Turing. It was a really unforgettable experience for a computer science student.”



“I really enjoyed the social and cultural programme. It was amazing. The RAs were perfect and I just wanted to spend more time with them. Although we had social activities every day, I still want more, especially punting!”

LMH SUMMER PROGRAMMES ONLINE

JOIN AN ONLINE PROGRAMME FOR THE SAME ACADEMIC EXPERIENCE

If you can't join us in person, an LMH Summer Programme Online presents an alternate opportunity to experience Oxford's world-renowned tutorial teaching system, and gain new skills to take you further in your future academic or professional career.

All our exciting courses are available online, and all of them are taught with Oxford's signature emphasis on stimulating small-group discussions and highly-personalised tutorial classes. Not only will you expand your knowledge and deepen your understanding of your chosen subject, but you will also finish the programme better equipped to articulate, debate, and defend your ideas.

Meaningful learning experiences require easy interaction and shared participation. Lady Margaret Hall's licensed remote programme platform ensures that this is never lost, with a mobile and web-browser app that everyone can use whether joining us in person or online.

You will use the app to register with the programme, access materials, watch live or recorded lectures, and ask questions of speakers in real time. For seminar and tutorial classes you and other students taking part online from around the world will join a tutor in Oxford in a virtual classroom.

Through careful online classroom management these sessions are as interactive and engaging as if you were in the same room. Throughout the programme our Remote Learning Coordinator will be on hand to ensure that online students are able to take part fully and effectively with all aspects of the academic programme.



COURSES, DATES, AND FEES

Programme Session 1 24th June - 12th July 2024	Programme Session 2 15th July - 2nd August 2024	Programme Session 3 5th August - 23rd August 2024
Artificial Intelligence and Machine Learning: Theory and Practice	Advanced Artificial Intelligence and Machine Learning: Computer Vision	Artificial Intelligence and Machine Learning: Theory and Practice
Advanced Artificial Intelligence and Machine Learning: Reinforcement Learning	Advanced Artificial Intelligence and Machine Learning: Natural Language Processing	Advanced Artificial Intelligence and Machine Learning: Deep Unsupervised Learning
PPE: Leadership in Politics, Business, and Society	PPE: Climate Change, Politics, and Environmental Justice	PPE: Globalisation, Populism, and Identity
Psychology and Social Connection	Introduction to Cognitive Psychology	Computational Psychology and Artificial Intelligence
Repression, Subversion, Expression: Gender and Sexuality in British Literature	Oxford and the Rise of Fantasy	Economic History: The Great Divergence, Convergence, and Beyond

A typical LMH Summer Programme lasts for six weeks and consists of two course options, though you may choose to study one course lasting three weeks, or select three courses and join us for nine weeks. You can choose to take courses in the same subject area, or you can select courses from different disciplines to create your own personalised programme.

Fees for residential summer programmes:

- Single Session (3 Weeks): £3980
- Double Session (6 Weeks): £7680
- Triple Session (9 Weeks): £11380

Fees for online summer programmes:

- Single Session (3 Weeks): £1360
- Double Session (6 Weeks): £2660
- Triple Session (9 Weeks): £3960

ADMISSIONS

LMH Summer Programmes are designed for students who want to gain and develop knowledge in their chosen subject area. Unless specifically stated in the course outline, there are no formal prerequisites or restrictions regarding which subject(s) you are currently studying at university, but please note that LMH Summer Programmes are intensive courses of study aimed at undergraduates who have completed one or more years of their degree, or entry level postgraduate students.

We will consider each applicant's academic ability and expect successful applicants to have a minimum grade point average equivalent to 2:1 level on the British grading scale. For example, this would mean at least a 3.2 GPA on the 4.0 grading scale in the United States, and 80% in China.

To participate fully in the programme all students will need to have proficiency in English. English language requirements for students who are not native English speakers (if the language of instruction in your home institution is English you do not need to provide evidence of your English proficiency):

- Overall TOEFL score of 85;
- or IELTS score of 6.5 (no less than 6.0 in each component)
- or CET-4 at 550 or CET-6 at 520
- Duolingo English Test score of 120 (no less than 105 in each section)
- Cambridge English Scale score of 176




HOW TO APPLY

Once you have selected the course(s) and dates of your LMH Summer Programme, you are ready to begin your application.

Please follow the instructions below.

- Complete the online [Application Form](#).
- Send an up to date Academic Transcript and (if applicable) evidence of your English proficiency to vacation.programmes@lmh.ox.ac.uk.
- Lady Margaret Hall will contact you to let you know whether your application has been successful, usually within two weeks. If you are accepted onto the programme, we will send an Enrolment Agreement for you to sign as well as instructions for the payment of your programme fee deposit.
- When your programme fee deposit has been received by Lady Margaret Hall we will contact you to let you know that your place on the programme is confirmed.





ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING: THEORY AND PRACTICE

Session 1: 24th June - 12th July 2024

or Session 3: 5th August - 23rd August 2023

Course Outline

In our age of burgeoning smart technology and automation we are already seeing the transformative potential of Artificial Intelligence and Machine Learning in fields as diverse as finance, medicine, and manufacturing. This course offers a hands-on introduction to this future-focused area of research.

You will begin with an introduction to the basics of programming in Python, in particular understanding object-oriented programming and its importance to deep learning. You will quickly proceed to an introduction to artificial intelligence, examining the fundamentals of supervised machine learning, including linear regression, logistic regression, neural networks, and gradient descent. In the second week of the course you will explore image processing, investigating transformations, convolutional filters, and edge detection, before an introduction to convolutional neural networks and some prominent CNN architectures such as VGG and ResNet. In the final part of the course, you will look at the core concepts of natural language processing, including sequence modeling, autoregressive models, and recurrent neural networks.

This intensive course offers both a theoretical introduction to artificial intelligence and machine learning concepts, and an opportunity to put this knowledge into action in solving small-scale practical problems from diverse domains.

Learning Outcomes

- Understand theoretical concepts of artificial intelligence and machine learning.
- Know how basic artificial intelligence and machine learning tools are used in practice.
- Know how to implement basic algorithms and train small networks for practical problems.
- Be able to identify and use relevant artificial intelligence and machine learning tools in research.
- Know how to implement and deploy artificial intelligence and machine learning algorithms on Google Cloud.

Who is this course suitable for?

This course would suit STEM students in undergraduate or entry-level postgraduate study. Basic knowledge of calculus and linear algebra is required, and some experience of coding is recommended.

Prior experience of artificial intelligence, machine learning, or the Python programming language is not required.

ADVANCED ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING: REINFORCEMENT LEARNING

Session 1: 24th June - 12th July 2024

Course Outline

Getting things wrong is part of what makes us human, and our natural intelligence helps us learn from our mistakes. Reinforcement learning is an area of machine learning which enables artificial intelligence to learn from its mistakes as well, for example allowing a robot to use trial-and-error to interact with a new environment and achieve an objective. This advanced course examines the fundamentals of reinforcement learning and explores the varied applications of dynamic programming methods.

The course will begin with a thorough grounding in the key theoretical concepts of reinforcement learning, familiarising you with agents, environments, and rewards, before introducing Markov decision processes, dynamic programming, and Monte Carlo methods. As the course progresses you will explore a wide range of reinforcement learning methods and techniques, including policy gradient methods and how they optimise policies, policy search methods such as evolutionary strategies and hill-climbing, and the cross-entropy method for policy optimisation. The final part of the course will introduce even more advanced topics, including multi-agent reinforcement learning.

This intensive course offers students theoretical understanding and practical experience in a range of reinforcement learning concepts and techniques, offering career skills as well as excellent foundations for future research.

Learning Outcomes

- Understand the fundamentals of reinforcement learning, including agents, environments, and rewards.
- Be able to assess and utilise a range of reinforcement learning approaches.
- Be able to evaluate the efficacy of a range of reinforcement learning methods.
- Understand different strategies for training multiple agents, both decentralised and centralised.
- Demonstrate familiarity with current research.

Who is this course suitable for?

This course would suit STEM students with intermediate level experience in artificial intelligence and machine learning concepts and techniques, including those undertaking, or looking ahead to, graduate level study or research.

Prerequisites of this course include:

- Knowledge of the deep learning libraries.
- Understanding of deep learning, neural networks and basic dynamic programming.
- Strong background in optimization and probability.
- Familiarity with the Python programming language.



ADVANCED ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING: COMPUTER VISION

Session 2: 15th July - 2nd August 2024

Course Outline

From self-driving cars and augmented reality to intelligent medical imaging helping doctors identify diseases more quickly, computer vision is a rapidly-growing field within artificial intelligence and machine learning. In this course, students who are already familiar with the key theoretical foundations of artificial intelligence and machine learning will dive deeper into the exciting capabilities of this area of research and its applications.

You will begin with computer vision algorithms for classification, recognition, detection, and their implementation in deep learning libraries, before exploring autoencoders and variational autoencoders, and gaining insights into the training and application of generative adversarial networks. You will proceed to an in-depth examination of diffusion models, including score-based diffusion models, latent diffusion models, and Stable Diffusion. The final part of the course explores even more advanced topics, including the representation of 3D objects, vision transformers, video classification, and text to image generation.

This intensive course offers students theoretical understanding and practical experience in a range of advanced computer vision concepts and techniques, offering career skills as well as excellent foundations for future research.

Learning Outcomes

- Understand computer vision algorithms for classification, recognition, and detection, and their implementation in deep learning libraries.
- Know the different types of generative adversarial network and their distinct contributions to controlled data synthesis and image generation.
- Be able to identify different diffusion models and assess their advantages in generative modeling.
- Be able to demonstrate awareness and understanding of the latest key research areas in computer vision.

Who is this course suitable for?

This course would suit STEM students with intermediate level experience in artificial intelligence, machine learning, and computer vision concepts and techniques, including those undertaking, or looking ahead to, graduate level study or research.

Prerequisites of this course include:

- Knowledge of the deep learning libraries.
- Understanding of deep learning and convolutional neural networks.
- Strong background in optimization and probability.
- Familiarity with the Python programming language.

ADVANCED ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING: NATURAL LANGUAGE PROCESSING

Session 2: 15th July - 2nd August 2024

Course Outline

Through predictive text, translation tools, and smart devices natural language processing (NLP) is increasingly a part of our day-to-day lives, and in large language models like Chat-GPT we see the enormous future potential of this exciting area of research. This advanced course examines the theoretical concepts of NLP and its current and potential future application in diverse domains.

The course begins with an introduction to attention mechanisms, examining self-attention, transformers, and byte pair encoding, before turning to large language models (LLMs) and natural language generation, exploring how they use prompting and reinforcement learning with human feedback. You will look closely at the varied applications of NLP and LLMs in particular, such as question answering, translation, and code generation. In the final part of the course you will discover how language and vision can interact in applications such as video captioning or text to image generation, before looking to the future of NLP research and considering the limitations, biases, ethical concerns, and potential misuses of NLP.

This intensive course offers students theoretical understanding and practical experience in a range of natural language processing concepts and techniques, offering career skills and excellent foundations for future research.

Learning Outcomes

- Be able to demonstrate understanding of the algorithms and methods used to process textual data.
- Understand the functionality of large language models and their training through finetuning, low-rank adaptation, and quantized low-rank adaptation.
- Demonstrate understanding of the practical applications of natural language processing.
- Be able to discuss the potential limitations, biases, ethical concerns, and misuses of NLP.

Who is this course suitable for?

This course would suit STEM students with intermediate level experience in artificial intelligence, machine learning, and natural language processing concepts and techniques, including those undertaking, or looking ahead to, graduate level study or research.

Prerequisites of this course include:

- Knowledge of the deep learning libraries.
- Understanding of deep learning, recurrent neural networks, GRU, and LSTMs.
- Strong background in optimization and probability.
- Familiarity with the Python programming language.



ADVANCED ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING: DEEP UNSUPERVISED LEARNING

Session 3: 5th August - 23rd August 2024

Course Outline

Deep Unsupervised Learning is an exciting emerging area of research in the field of artificial intelligence and machine learning, in which the goal is to develop systems that can learn from unlabelled data. Such systems closely mimic natural human intelligence by finding patterns in data without instructions on what to look for.

The course will begin with an introduction to unsupervised learning and clustering algorithms, before exploring generative adversarial networks and deep generative models. You will examine self-supervised learning, anomaly detection, flow-based models, and unsupervised representation learning. The final part of the course focuses on clustering in high-dimensional spaces, semi-supervised learning, energy-based models, and unsupervised learning for reinforcement.

This intensive course offers theoretical understanding and practical experience with a focus throughout on real-world applications of deep unsupervised learning across various domains, offering career skills as well as excellent foundations for future research.

Learning Outcomes

- Understand the differences between supervised and unsupervised learning and the fundamentals of clustering.
- Be able to utilise a range of algorithms and techniques for unsupervised, self-supervised, and semi-supervised learning.
- Be able to evaluate the efficacy of real-world applications of deep unsupervised learning across various domains.
- Be able to demonstrate familiarity with the current state of research into deep unsupervised learning.

Who is this course suitable for?

This course would suit STEM students with intermediate level experience in artificial intelligence and machine learning concepts and techniques, including those undertaking, or looking ahead to, graduate level study or research.

Prerequisites of this course include:

- Knowledge of the deep learning libraries.
- Understanding of deep learning, recurrent neural networks, and convolutional neural networks.
- Strong background in optimization and probability.
- Familiarity with the Python programming language.

PPE: LEADERSHIP IN POLITICS, BUSINESS, AND SOCIETY

Session 1: 24th June - 12th July 2024



Course Outline

Whether it is a politician guiding a nation through crisis, a visionary tech entrepreneur disrupting the global business landscape, or an inspirational activist campaigning for social justice, great leaders have the power to change the world. But what makes a great leader, and how do you become one?

The course begins with an introduction to the study and analysis of leadership, from philosophers like Sun Tzu, Plato, and Machiavelli, to modern theoreticians such as Bernard Bass and Bruce Avolio. You will learn about the current state of research into leadership, gaining an understanding of different leadership styles, and discovering how to put them into action. As the course progresses you will consider more advanced topics, including transformational and change leadership, ethical leadership, and gender issues in leadership. Throughout the course you will explore historic examples and contemporary case studies of leadership from a range of contexts, and draw on academic analysis from not only Philosophy, Politics, Economics and Management, but also Sociology, Psychology, and History.

Philosophy, Politics, and Economics (PPE) is a combined interdisciplinary area of study which has been taught at the University of Oxford since the early 20th century to equip students with the breadth of expertise required to understand and influence the world around us.

Learning Outcomes

- Understand traditional leadership theories and be able to demonstrate awareness of recent research and current models.
- Be able to assess critically the strengths and weaknesses of different approaches to leadership on an organisational, national, and international scale.
- Identify your own leadership traits, style, and skills.
- Be able to demonstrate awareness of leadership challenges faced by modern organisations, including those related to ethics, culture, and gender.

Who is this course suitable for?

This course would suit students from a range of academic disciplines, but especially those with a background or interest in Politics, Philosophy, and Economics and Management, or who wish to develop their knowledge and skills in anticipation of future leadership roles.



PPE: CLIMATE CHANGE, POLITICS, AND ENVIRONMENTAL JUSTICE

Session 2: 15th July - 2nd August 2024

Course Outline

Perhaps the greatest challenge facing humankind is anthropogenic climate change, the rapid warming of the earth's temperature driven by the consumption of fossil-fuels and emission of greenhouse gases into the atmosphere. In this course you will investigate the political challenges and economic consequences of both action and inaction on climate change, utilising case studies on a local, national, and international scale.

The course begins with an introduction to the principles of environmental sustainability, exploring some of the legal, regulatory, and economic changes needed for a low carbon and socially equitable transition. You will progress to an in-depth examination of environmental policy and governance, investigating the dynamics and processes shaping global environmental politics today. An important aspect of climate change is that some of those least responsible for emissions are likely to suffer the greatest impact from rising temperatures, and in the final part of the course we will consider global warming and climate change in terms of social justice, human rights, and intergenerational equity, asking how we can achieve a 'just transition' to a decarbonised world.

This varied and interdisciplinary course will provide you with a deep understanding of this vitally important global challenge.

Philosophy, Politics, and Economics (PPE) is a combined interdisciplinary area of study which has been taught at the University of Oxford since the early 20th century to equip students with the breadth of expertise required to understand and influence the world around us.

Learning Outcomes

- Be able to demonstrate knowledge and understanding of the fields of climate ethics and environmental justice.
- Be able to demonstrate knowledge and understanding of the economics impacts of both action and inaction on climate change.
- Be able to engage critically with a range of local, national, and international policy initiative to address climate change.

Who is this course suitable for?

This course would suit students in Social Sciences and the Humanities, especially those with a background in Politics, Philosophy, Economics, Development Studies, Human Geography, or International Relations.

PPE: GLOBALISATION, POPULISM, AND IDENTITY

Session 3: 5th August - 23rd August 2024

Course Outline

While the world has been moving increasingly towards greater inter-connectivity through trade, infrastructure, communications, and migration, criticism of 'globalisation' has been growing ever louder, with many blaming it for inequality, cultural marginalisation, and political disaffection.

In this wide-ranging course you will examine 'globalisation', exploring its origins and development, its features and criticisms, and its current manifestation as a world 'system' incorporating international commerce, NGOs, and the United Nations; you will look at some of the responses to globalisation, from populist political movements like Brexit and Trumpism to diverse transnational social movements such as Black Lives Matter and the Arab Spring of 2011; and you will investigate the development of identity consciousness in politics, from religious or ethnic nationalism to the politics of sexual identity. At this time of radical questioning of the premises and aims of 'globalisation', this course will engage with ethical and theoretical constructs to help us understand better the different dynamics we are examining. It is the perfect course for students seeking to understand some of the most significant political phenomena of our time.

Philosophy, Politics, and Economics (PPE) is a combined interdisciplinary area of study which has been taught at the University of Oxford since the early 20th century to equip students with the breadth of expertise required to understand and influence the world around us.

Learning Outcomes

- Develop knowledge and understanding of the economic processes and impacts of globalisation.
- Develop understanding of populist political movements around the world, and develop country-specific knowledge of select populist parties or movements.
- Be able to assess critically contemporary philosophical and political engagements with the concept of personal identity.

Who is this course suitable for?

This course would suit students in Social Sciences and the Humanities, especially those with a background in Politics, Philosophy, Economics, Development Studies, Human Geography, or International Relations.



PSYCHOLOGY AND SOCIAL CONNECTION

Session 1: 24th June - 12th July 2024

Course Outline

What is the secret to a life well lived? People may accumulate wealth and success, and yet find themselves feeling lonely and unfulfilled – what’s missing?

The empirical evidence is unusually clear: the most significant determinant in how happy, healthy, and long a life we lead is our social connection, that is, how connected we feel to other human beings. In many societies, however, loneliness has been on the rise, attributed variously to pandemic restrictions, an increasing reliance on digital interactions, or an emphasis on individualism over community.

This course examines why nurturing supportive relationships matter to mental health and how people create bonds with one another. You will learn about the types of social network, and how different people nurture their networks, especially when entering new social environments or facing a life transition. You will also investigate why people can be naturally suspicious of those who seem at first glance to be ‘different’, and how human beings can nonetheless form successful diverse interconnected communities.

This exciting course spans several areas of psychology, including evolutionary, social, and clinical psychology, and the psychology of individual differences, to explore how and why humans choose social connection with others.

Learning Outcomes

- Be able to examine critically the role of nurturing supportive relationship on mental health and wellbeing.
- Be able to demonstrate knowledge of different types of social networks and how people navigate them.
- Be able to demonstrate awareness of research into wellbeing, individual differences, and social psychology.
- Be able to evaluate critically empirical findings from psychological research.

Who is this course suitable for?

This course would suit students from a range of disciplines, including not only students with prior experience of Psychology interested in a modern area of research, but also students without formal academic experience in the subject but who are interested in a scientific study of social relationships.

INTRODUCTION TO COGNITIVE PSYCHOLOGY

Session 2: 15th July - 2nd August 2024

Course Outline

How are we able to focus on one thing rather than something else? Why do we remember some things and forget others? What makes human beings intelligent? This course offers the opportunity to explore these questions and more through an introduction to Cognitive Psychology, a key area within Psychology which examines how the brain works.

You will learn about the role of attention as a fundamental cognitive process and how it relates to short and long-term memory; you will examine the phenomenon of learning, looking at learning theories and neuroimaging evidence to discover how learning occurs in the brain; and you will investigate the role of cognition in language, sleep, and consciousness. Throughout the course you will learn about the methods involved in studying Psychology and how to think critically about empirical research.


Introduction to Cognitive Psychology offers a solid foundation for future study in Psychology and provides an opportunity to hear about cutting-edge research taking place here at the University of Oxford.

Learning Outcomes

- Be able to demonstrate understanding of the key issues and topics within Cognitive Psychology, including current areas of research.
- Be able to demonstrate understanding of the psychological and biological methods behind Cognitive Psychology.
- Be able to evaluate critically empirical findings from psychological research.

Who is this course suitable for?

This course would suit students from a range of disciplines who are interested in the scientific study of mental processes. Prior formal academic experience in Psychology is not required.



COMPUTATIONAL PSYCHOLOGY AND ARTIFICIAL INTELLIGENCE

Session 3: 5th August - 23rd August 2024

Course Outline

How does the brain process information, make decisions, and learn? Computational Psychologists seek to answer these questions by using algorithms and mathematical models to simulate and analyse the mechanisms behind mental processes. The field has been highly influential on Artificial Intelligence research and development, as data scientists attempt to convincingly recreate human thought, speech, and behaviour in machines, a challenge Alan Turing called the 'Imitation Game'. Introducing Computational Psychology, Computational Neuroscience, and AI, this course offers a fascinating insight into these exciting and forward-looking interconnected fields of research.

The course begins with an introduction to Computational Psychology, exploring the ways in which process-based computational models may be used to represent the working of the human brain, employing algorithms to simulate aspects of cognition and predict behaviour. We shall then turn to how such models correlate with neurobiology, the actual network of cells and signals which constitutes the brain, investigating neuron models, how neural networks perform computations, and neuropsychological theories of learning. Finally, we shall look at the ways in which computational approaches to psychology and neuroscience have influenced, and been influenced by, developments in Artificial Intelligence. We will discuss the physical symbol systems hypothesis and human and artificial cognitive architectures, before considering future developments in computational psychology and artificial intelligence, such as the possibility of machine consciousness and Artificial General Intelligence.

From analysing models of mental processes to exploring machine intelligence, join an LMH Summer Programme and discover this important and evolving field of research.

Learning Outcomes

- Understand how computational models are used to simulate mental processes and cognition.
- Be able to demonstrate understanding of the relationship between mathematical models of cognition and the biology of the brain, including neurons, synapses, and circuits.
- Be able to evaluate critically the strengths and limitations of computational models in explaining psychological phenomena.
- Have awareness of the influence of Computational Psychology on Artificial Intelligence research.
- Be able to demonstrate awareness of ethical concerns around current and potential research at the intersections of Psychology and AI.

Who is this course suitable for?

This course would suit students who are interested in the scientific study of mental processes and their analysis through computational methods.

- Basic knowledge of calculus, linear algebra, and probability theory is required.
- Some prior study of Cognitive Psychology is beneficial but not essential.
- Prior study of Computer Science, Programming, Artificial Intelligence, or Machine Learning is not required.

REPRESSION, SUBVERSION, EXPRESSION: GENDER AND SEXUALITY IN BRITISH LITERATURE

Session 1: 24th June - 12th July 2024

Course Outline

How have expressions of sexuality and gender in British literature been shaped by the social constraints of different periods? How have female authors navigated systems of patriarchy, and what has been the role of literature in confirming and subverting gender norms? And how are the rapid changes in approaches, attitudes, and practices around gender and sexuality since the 20th century reflected in contemporary British writing? This course offers a unique and exciting opportunity to explore these questions and more, examining a wide range of British literature from various genres and periods through the lens of gender and sexuality.

You will discuss representations of the changing roles of women in Early Modern England, from Isabella Whitney's *A Sweet Nosegay* and William Shakespeare's *Love's Labour's Lost* in the 16th Century to 'breeches' plays of the 17th Century. You will explore themes of womanhood, sexuality, and maternity in Romanticism and the Gothic through works such as Mary Shelley's *Frankenstein*. Further areas of discussion will include censorship and (homo)sexuality, and differing constructions of masculinity in 20th Century British literature, as well as exploring queer literature in contemporary Britain, such as the works of Mary Jean Chan. Theoretical frameworks, including feminist literary theory and queer theory, will be examined and applied throughout the course, and lectures and supplementary resources will equip you with the historical and cultural knowledge to contextualise the texts you will study.

Repression, Subversion, Expression is the perfect course for you if you are a Humanities student seeking to develop your knowledge of British literature and culture, your analytical skills, and your understanding of varied forms of self-expression.

Learning Outcomes

- Be able to demonstrate knowledge of the role of gender and sexuality in a range of British literature.
- Be able to assess the changing role of gender and sexuality in British literature of diverse periods and genres.
- Be able to evaluate the relationship between literary texts and their historical and cultural contexts.
- Be able to apply key theoretical frameworks including feminist theory and queer theory to literary texts.

Who is this course suitable for?

This course would suit students of the Humanities, especially those with an interest in English Literature, Theatre, Dramatic Arts, or History.



BRITISH LITERATURE: OXFORD AND THE RISE OF FANTASY

Session 2: 15th July - 2nd August 2024

Course Outline

What inspired the emergence and flowering of the fantasy genre in the 20th and 21st century?

Oxford - historic, beautiful, and timeless seat of learning - is closely associated with the genre. Towering figures of fantasy literature, J. R. R. Tolkien and C. S. Lewis, were both professors at the University of Oxford, and many more, like Diana Wynne Jones or Philip Pullman, were educated at Oxford or, like J. K. Rowling, influenced by its literary products and settings. Oxford and the Rise of Fantasy offers a unique opportunity to examine the fantasy genre from its earliest origins to the present day, exploring at each stage the influence of Oxford and its writers.

The course traces a history of the fantasy genre's formation and crystallization, from its medieval beginnings to the present. You will look at the story-telling and world-building literary devices used by Geoffrey of Monmouth, who wrote his medieval bestseller about King Arthur in Oxford Castle, and the authors of Renaissance Romance fantasies. You will explore Margaret Cavendish's *The Blazing World*, a forerunner of science fiction, and 18th-century Gothic fantasies which paved the way for Mary Shelley's *Frankenstein* and Bram Stoker's *Dracula*. The course follows Oxford's own Lewis Carroll, Scottish fantasy author George Macdonald, and the pre-Raphaelite William Morris through to Tolkien and Lewis and beyond. We will also consider recent critical approaches to the fantasy genre as well as discuss whether these pre-21st century texts lend themselves with ease to the modern media of cinema, TV serialisation, or computer games, and which adjustments have been made or are still to be made to make them relevant to our own times.

Learning Outcomes

- Be able to demonstrate a detailed understanding of the development of the fantasy genre, and its links to Oxford writers.
- Be able to evaluate the relationship between fantasy literary texts and their historical and cultural contexts.
- Understand and critically assess the key debates regarding the contemporary fantasy genre and its future direction.
- Develop a critical vocabulary for discussing the fantasy genre in a range of periods.

Who is this course suitable for?

This course would suit students of the Humanities, especially those with an interest in English Literature, Theatre, Dramatic Arts, or History. The course would be of particular relevance to those with an interest in the future of literature in diverse media.

ECONOMIC HISTORY: THE GREAT DIVERGENCE, CONVERGENCE, AND BEYOND

Session 3: 5th August - 23rd August 2024

Course Outline

What are the causes of the vast differences in wealth between nations? Why have certain societies prospered whilst others still grapple with poverty? Will inequality between the developed and developing worlds be permanent? Addressing these questions and understanding today's global economy requires a historical perspective.

This course will begin with an introduction to Economic History as an interdisciplinary subject, and to the methods and sources economic historians use. You will then explore some of the key events of the past 500 years, including the Transatlantic slave-trade, colonialism, and the Industrial Revolution, examining their links to the phenomenon known as the 'Great Divergence', when levels of wealth in the Western world separated from everywhere else. We will then consider the more recent phenomenon of 'Convergence', and investigate why certain countries, including Japan and China, managed to catch up with their European counterparts, whilst others fell further behind. In the final part of the course you will reflect on the limits of 'Convergence', and assess whether inequality has become an immovable feature of global development. Throughout the course you will be introduced to frontline research and a variety of interdisciplinary approaches, with a particular focus on quantitative methods.

Learning Outcomes

- Develop knowledge and understanding of Economic History as an interdisciplinary subject and its methodologies.
- Be able to demonstrate knowledge of key historical events and their role in long-term economic development.
- Be able to think critically about the sources and limits of economic growth.

Who is this course suitable for?

This course would suit students in a Humanities or Social Sciences field, especially History or Economics, but including Political Science and Sociology. This course would be especially beneficial to students aspiring to undertake graduate study in History or Economics.



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