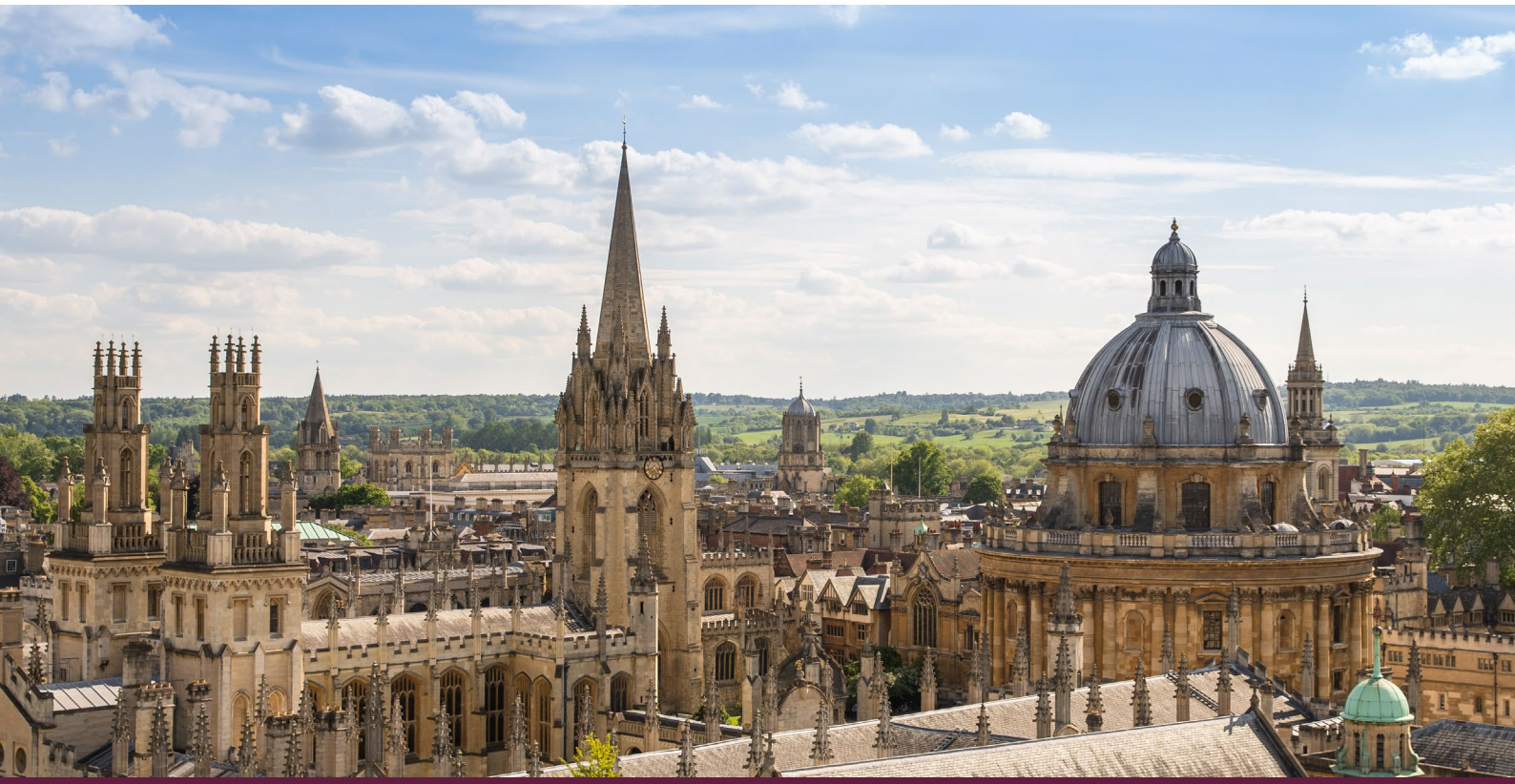
Regent's Park College OXFORD

Oxford Prospects and Global Development Institute

Oxford Prospects Programmes



牛津展望计划

（医科专项）

2021 Online Programme

目录 Contents

1 项目背景简介

牛津大学是英语世界国家中最古老的大学，创建历史可追溯至十一世纪末，连续五年蝉联全球排名第一（2017-2021 年）。牛津大学拥有雄厚的师资力量，其教职队伍中有 83 位皇家学会会员和 125 位英国科学院院士。近 900 年的校史中，牛津于各个领域中培养了许多杰出领袖，包括 6 位英国国王、28 位英国首相、多位外国政府首脑、50 余位诺贝尔奖获得者和一大批世界著名的文学家和科学家，在诸多领域引领着世界最前沿的科学研究。

牛津大学医学院世界排名综合实力稳居世界前三，在临床医学研究方面连续九年世界排名第一，生命科学研究世界排名第三，现有 3000 余位本科生及博士研究生，和来自 101 个国家的 5600 余位学者、研究人员、NHS 临床医师和全科医生，拥有 44 家股权转移公司，在 25 个国家和地区拥有深度科研合作。主体研究及课程内容涉及生理学和药理学，生物化学和医学遗传学，应用心理学，病理学原理。

新冠疫情给人类带来了诸多不确定性。在这特殊时期，全球共识和相互知识交流比以往任何时候都更为重要，牛津大学摄政学院全球发展与展望研究院（OPGDI）与学术界同仁团结一致。为巩固和稳定其与海外合作伙伴和学生之间建立的，长期稳定且卓有成绩的合作关系，OPGDI 为来自精心挑选的一流中国合作高校的优秀学生设计线上课程，针对不同专业，前沿学科，提供高质量的学习资源和学术服务。

本次核心课程为期三周，另设导师辅导制（Tutorial System）学术辅导课程，需单独提出申请。

项目课程亮点

- ✓ **牛津大学教授学者亲自授课**
- ✓ **触及最高学术成就，探索医学领域最前沿**
- ✓ **与顶尖学者互动，规划学术界、业界的职业发展方向**
- ✓ **直播授课，同步录制，课后笔记分享，便于回放复习**

2
基本信息

课程时间： 2021 年 1 月 25 日 -2021 年 2 月 9 日 （三周课时量）

课程结构： 课程将由学术课程（15 课时），研讨班（10 课时），工作坊（5 课时）组成。

每日约进行 2-3 小时线上直播内容。

授课形式： 所有课程均为直播授课，同步录制，便于回放复习。

课程学习资料和课程笔记将通过网上课程系统，邮件及课程群提供。

课程费用： 三周课程原费用为 1650 英镑，因新冠疫情，牛津展望计划办公室为国内长期紧密合作的伙伴高校申请学生减免此次部分费用。

（减免后）实缴费为：1050 英镑（约 9000 元人民币）

考核评估： 由 *a) 每周测验 , b) 结业报告 , c) 小组作业展示 , d) 考勤出席*等进行综合评定。

课程结业： 顺利完成课程的学生将获得结业证明与成绩单。

申请条件： 为保证学生深度参与课程研究与讨论，申请人需要达到以下基础要求：

IELTS with minimum overall score of 6.0

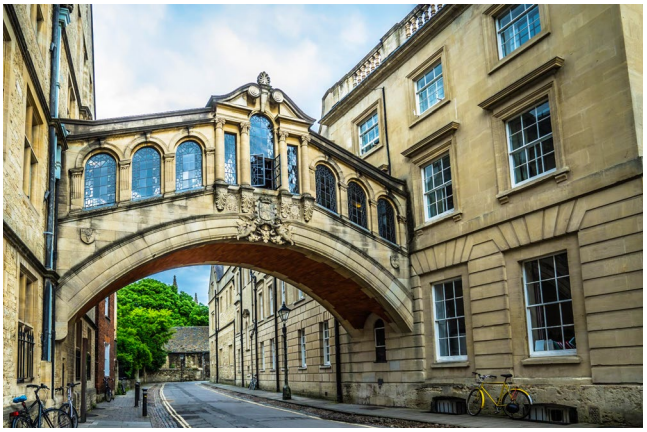
或 TOEFL with minimum overall score of 80

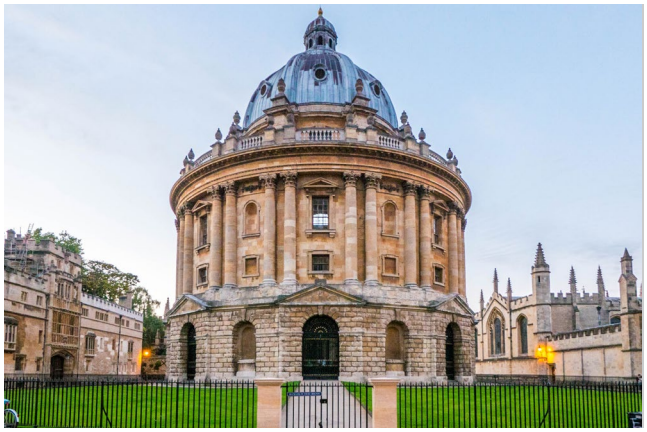
如尚未拥有以上成绩证明，可提供其他英语能力证明（如四级，六级，或高考成绩等），项目学术处将依据申请人资历进行审核，或将安排面试，OPGDI 学术处将对录取结果拥有最终决定权。

项目咨询： 此项目仅向合作高校开放，课程内容咨询联系

Wechat: yinmengdjj

Email: jerry.deng@oxford-prospects.com





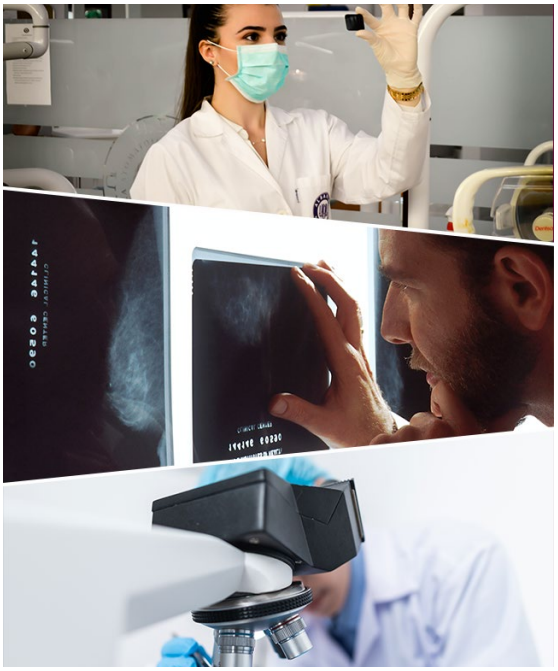
3 课程安排

线上课程分为学术课程，学术研讨会，工作坊等三大板块，授课师资均为牛津大学知名教授、学者和研究员，旨在为学生们展现医学发展及前沿议题，激发学生对于医学的学习兴趣和热情，为学术和职业发展奠定良好的基础。

3.1 学术课程 Academic Lectures

学术课程部分总计 15 课时，学术课程内容涉猎医学各前沿热门议题，包括病理学，临床医学，生物医学，神经科学与行为科学，公共卫生与预防，肿瘤学，免疫学，以及如纳米材料、计算机科学等各学科前沿与与医学的交叉等。拟定议题包含如下：

- Tools and Techniques to Integrate Clinics and Research
- Research in Action: Macrophage and Anti-microbial Activity
- Research in Action: How can we cure Fragile X syndrome using genome-editing technology?
- Social Cognitive Neuroscience and Mental Health in Childhood and Adolescence



- Nanotechnology merging with biology: a transformation of materials, medicine and how we think about life
- Effective Imagining, Biomedical Engineering and Cancer Treatments
- DNA Damage and Repair
- Neurodegenerative Diseases: The Coming Epidemic
- Deep Brain Simulation and testing Development in Parkinson’ s Disease
- Stem Cells and the Promise of Regenerative Medicine

- Biomedical Engineering: Tissue Reconstruction and Angiogenesis
- Computer-aided Drug Design
- Using nanotechnology to detect viruses and pathogens
- Causal Risk Factors Underpinning Cardiovascular Disease and Cancer Subtypes
- Dissociation between the affective and sensory components of pain for ethics and well-being

** 师资安排请参照 Page 5 详细内容。*

3.2 小班研讨会 Seminars

每日学术课程之后将安排线上互动研讨课，促进师生互动，总计 10 课时。

研讨课由牛津大学教授，学者和研究员主持，学生们进行分组讨论，作业汇报展示。

> *“与 Lecture 授课模式不同，Seminar 小班过程中的收获完全超乎我的预期，非常 Hardcore，教授给我们分组并引领我们进行开放式的课程讨论，激励我们探索，知识输出，科研方法论实践，让我第一次觉得问题解决、做学术是可以如此有趣。”*
>
> — 李同学，浙江大学本科三年级

3.3 拓展工作坊 Workshops

拓展工作坊旨在激发参与者的内驱力，锻炼批判性思维和研究技能，强化自我意识和心理健康，同时还将提供与成功申请者互动并建立新人际关系的机会，此部分课程共计 5 个学时，侧重于以下几方面内容：

- **英国国家医疗服务体系（NHS）**
- **医疗系统的横向对比（德国，新西兰，波兰，美国）**
- **演讲陈述技能，批判性思维训练**
- **科学研究方法论及学术论文撰写**
- **留学经验分享及职业规划**

Proposed List of Lecturers (Partial)

Prof. Graham Richards

Fellow of the Royal Society, First Chairman of Chemistry at the University of Oxford. He also founded Oxford Molecular, a scientific software company that at its peak was worth £450m and helped set up Oxford University Innovation, Oxford's technology transfer company that has brought approximately 60 spin-out companies into existence.

Prof. Mike Brady

Fellow of the Royal Society, Fellow of the Royal Academy of Engineering, Fellow of the Academy of Medical Sciences, Professor in the Department of Oncology. Professor Brady was Deputy Chairman of Oxford Instruments plc from 1994 to 2014. He was awarded the Faraday Medal for the year 2000, and a Third Millennium medal of the IEEE.

Prof. Roi Cohen Kadosh

Senior Research Fellow in Psychology and Professor of Cognitive Neuroscience in the Department of Experimental Psychology. Professor Cohen Kadosh's main research focuses on the psychological and biological factors that shape learning and cognitionHis work has garnered considerable international recognition.

Prof. Sonia Antoranz Contera

Professorial Fellow of Green Templeton College, and a Professor of Biological Physics at the University of Oxford Physics Department. Her work lies at the interface of physics, biology, and nanotechnology. She was the founder, director and co-director of the Oxford Martin Institute of Nanoscience for Medicine at the Oxford Martin School.

Prof. Robert Carlisle

Associate Professor of Biomedical Engineering in the Department of Engineering Science, Director of MSc in Nanotechnology for Medicine and Healthcare, Associate Director of Synthetic Biology CDT. His work is concerned with how to more effectively deliver therapeutics, with particular emphasis of biologics.

Prof. Chrystalina Antoniades

Official Fellow of Reuben College, Associate Professor of Neuroscience in the Nuffield Department of Clinical Neurosciences at the University of Oxford, the Chair of the Clinical Neurosciences Society. Professor Chrystalina Antoniades' interest lies in examining the neurobiological relationship between visual perception and art.

Prof. Paul Fairchild

Fellow of Trinity College, Co-Director of the Oxford Stem Cell Institute. His current research draws on his background in immunology and interest in stem cells to develop new approaches to the treatment of a broad range of diseases with an immunological basis: indeed, his recent work has led to several patents and on-going clinical trials for the treatment of lung cancer.

Proposed List of Lecturers (Partial)

Dr Andrew Papanikitas

Research Fellow at Harris Manchester College, University of Oxford, One of the founding members of the Royal Society of Medicine Student Members' Group and a member of the Royal College of Practitioners. His research interests lie in healthcare ethics, especially primary healthcare, and undergraduate and postgraduate education.

Dr Michael Kohl

Early Career Research Fellow at the Department of Physiology, Anatomy and Genetic. Dr Michael Kohl's key research interest is information encoding in the brain. Dr Michael Kohl integrates studies on learning & memory in the hippocampus with research into information processing in the sensory cortices.

Dr George Leeson

Director of the Oxford Institute of Population Ageing, Senior Research Fellow in Demography. Dr George Leeson's main research interests include the demographic inequalities of global ageing, migration and migrants in Europe, health and social eldercare migrant workers, and the demographics of increasing longevity.

Dr Natalia Gromak

Science Research Fellow in Biochemistry at St John's College, University of Oxford. She was awarded a Royal Society University Research Fellowship. Dr Gromak's research is focused on studies of transcription in humans, especially the regulation of transcription termination and interplay between transcription and various RNA processing reactions in the cell.

Dr Julian Dye

Departmental Lecturer at the Institute of Biomedical Engineering (IBME), University of Oxford, Director of Research in the RAFT Institute. Dr Julian Dye established a research programme to develop a new approach to skin reconstruction, inventing an artificial skin material called 'Smart Matrix', a pro-angiogenic synthetic dermal replacement.

Dr Bethan Psaila

Senior Fellow in Clinical Medicine at New College, Cancer Research UK Advanced Clinician Scientist at the MRC Weatherall Institute of Molecular Medicine, and Honorary Consultant in Haematology. She leads a research group focused on the role of megakaryocytes in cancer. Her work has led to numerous publications in high-impact journals, with >4000 citations.

Dr Francis Szele

Associate Professor of Developmental Biology, Co-founding principal investigator of OxStem Neuro. The main goals of Dr Francis Szele's lab are to understand fundamental mechanisms governing stem cell behaviours and progenitor migration in the postnatal and adult neurogenesis. They are studying the human subventricular zone in healthy controls and in neuropsychiatric diseases.

导师辅导制课程
Tutorial Online Programme

牛津大学辅导制 (Tutorial System) 被誉为皇冠上的明珠，是牛津本科教学最为核心的部分。学生将有机会以 2-3 人小组形式，接受牛津导师就自身兴趣学科的针对性辅导，培养自主学习及研究能力，训练批判性思维。此部分线上导师辅导制课程需单独提交申请报名。

课程收获： ✓ **与各领域的世界顶尖专家建立长久私人联系**

✓ **深入探索自身兴趣学科**

✓ **培养强化批判性精神及自主研究能力**

✓ **习得如何提出并捍卫自身观点，接纳建设性批评意见并积极思考**

✓ **为之后的研究学习做充分准备**

✓ **收获项目结业证书及牛津大学导师的亲笔评估报告**

授课时间： 2021 年 2 月 - 3 月

课程费用： 1260 英镑

课程安排： 包含总计 8 节导师辅导制课程（1 节学术先导课程 + 7 节导师面对面辅导）。学生可根据自身情况选择 4 周（每周两课时）或 8 周（每周一课时）来完成课程内容。

考核测评： 1 篇 2000 字的学术 Essay，课堂表现及出勤情况也会纳入考评。

如何申请： 提交不少于 500 字的个人简述 Personal Statement，注明申请原因，自身学术兴趣，研究方向和所期望的收获。OPGDI 学术部将组织统一面试遴选。

学生回顾

“导师辅导制教学使我更愿意提出自身观点并提供佐证，不被拘束于已知领域的框架内。在课程中，我第一次体会到自身观点的重要性，导师并非简单的复述教科书中的知识，而是真切的在询问我的思考。”

— Adam，牛津大学哲学系，本科一年级

“每周讨论学术论文，灵感，想法及疑难困惑，导师通常是该领域的先导者。课程中导师不再是高高在上或站在远处讲台上的教授，而是与我及其他两位同学一起进行学术研究探讨的真正的‘私人导师’。”

— Maddie，牛津大学计算机科学系，本科二年级

“导师辅导制教学提供了一个高强度、高互动性的学习环境，我们可以讨论该周学术论文的主题，并从中衍生出各种议题进行辩论。在导师的引导下，可以从同学们各异的观点中获得新的灵感及思考。”

— Chloe，牛津大学经济系，本科二年级

“导师辅导制教学绝对是我在牛津获得最好学术经验的地方！它能使我自主的发掘知识，并在课程中与导师进行讨论，学以致用，而不是身在讲堂，被动无聊的学习书本上已有的知识。”

— Jin-Gyu，牛津大学社会学系，本科三年级

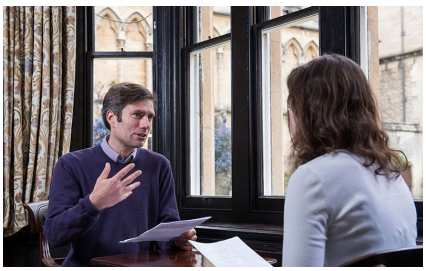
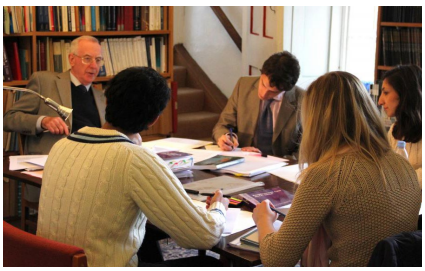
—— 线上导师辅导制课程课表 ——

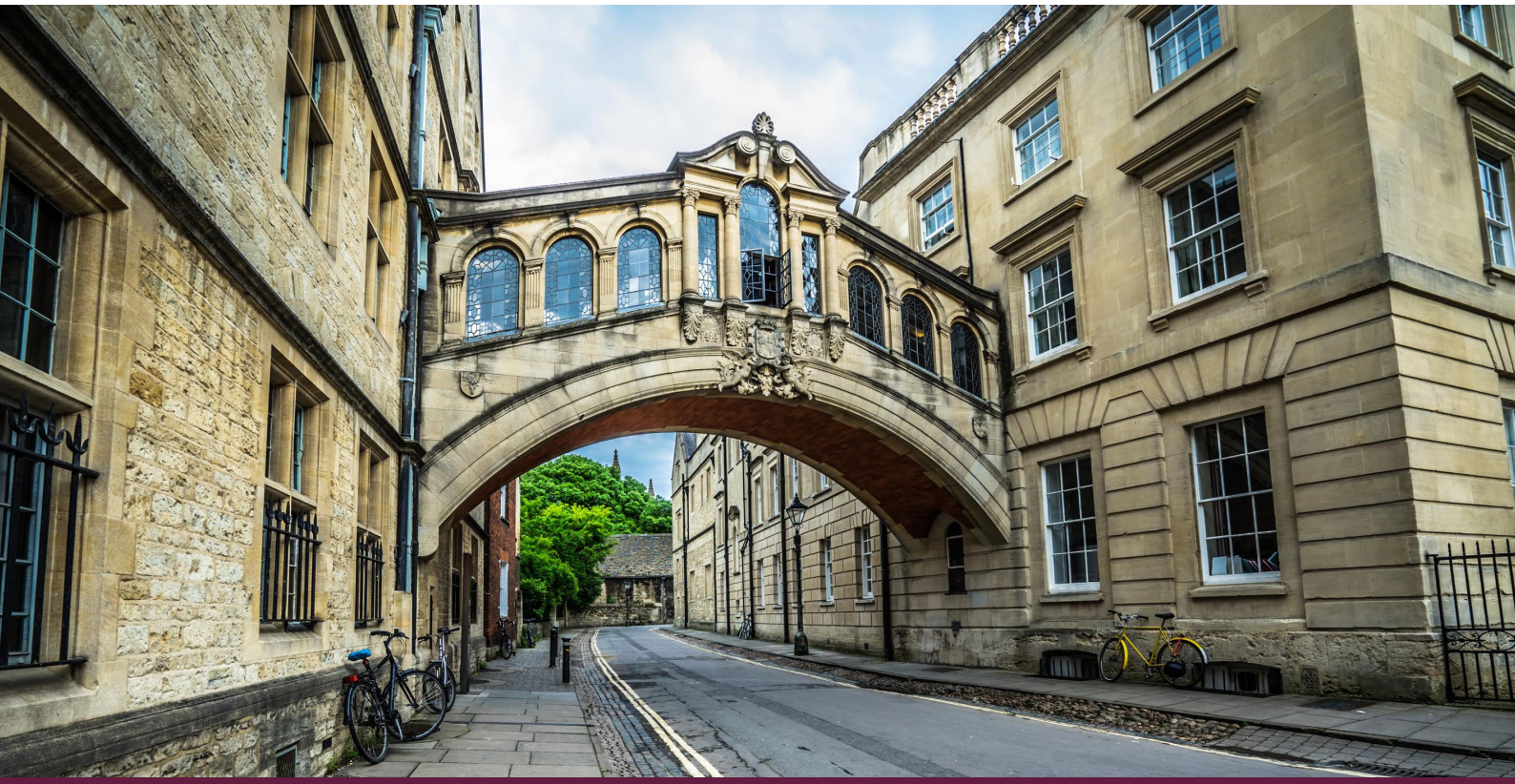
辅导课时	课程内容
2 课时	导师将在课程开始前通过电子邮箱发送课前阅读材料。课上，学生们将在导师的引导下，于 2-3 人的辅导小组中讨论对于阅读材料的见解，并做相关的学术知识延伸。课后需要在完成一份学术研究报告。
2 课时	学生们应于课前将学术研究报告提交导师。课上，导师将就每个人的研究报告给予详尽的反馈，同时进行建设性的批判及想法的交流。
2 课时	导师将在课程开始前通过电子邮箱发送课前阅读材料。课上，学生们将在小组中讨论对于阅读材料的理解，培养并提高他们批判性思维及分析性研究的技能。课后需要完成一份学术研究报告。
2 课时	学生们应于课前将学术研究报告提交导师。导师将就学生们的研究报告给予严格的评估，并在课上给到学生们建设性的评判，并进行进一步的严谨的学术讨论。

** 具体课程安排视导师及课程专业方向略有调整，根据实际情况而定。*

部分课题示例

- Philosophy: *Practical Ethics*
- Astronomy: *Gamma Ray Bursts*
- Physics: *Fluid Dynamics*
- Finance: *Digital Banking*
- Economics: *Game Theory*
- Law: *Tort Law*
- Linguistics: *How Do We Learn?*
- Politics: *The Relationship Between Politics and Morality*
- Computer Science: *Cloud computing*
- Neuroscience: *Artificial Intelligence - Computational Neuroscience*
- Hydrology: *Evapotranspiration modeling*
- Psychology: *Nonverbal communication*
- Maths: *Applied Cryptography*
- Sociology: *Nationality and Pride: What Makes a Patriot?*
- Chemistry: *Polymer chemistry*
- Medicine: *Medical Imaging*
- Bioengineering: *Gene-editing*



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