

## Course Information Sheet for entry in 2023-24: MSc in Sustainability, Enterprise and the Environment



The MSc will equip current and future thought-leaders and decision-makers with the rigorous academic knowledge and applied skills needed to understand and accelerate the transition to a zero-carbon, environmentally sustainable economic model.

The objectives of the MSc are three-fold:

1. Develop a critical understanding of the nature, drivers and trajectories of climate change and economic development.
2. Examine the role of enterprise and its relationship to environmental and development challenges across a range of risks, technological innovations, investment opportunities and policy responses.
3. Enable students to integrate and apply their interdisciplinary knowledge, advanced methodological skills and science-policy-enterprise network to foster innovation and scalable progress toward net zero and sustainable development.

The Programme Learning Outcomes of the MSc will equip students with knowledge, skills and networks to understand:

- the nature, science and trajectories of the net zero and sustainable development challenge (NZSD)
- the scope and limits of innovation and the different roles of enterprise – public and private - in effective responses to NZSD
- the data and methods required to measure progress to NZSD and attribute impact, and a critical appreciation of data
- the economic frameworks, methods and tools to apply to measure the NZSD problem and accelerate progress towards it
- the broad range of socio-technical drivers that can accelerate progress to NZSD
- the theory and practice of sustainable finance and investment, and how to engage with sector stakeholders
- the drivers reshaping economical social and environmental relationships
- the scope for markets to spur conservation and investment.

In addition, the course aims to equip graduates with a range of person and professional skills; in particular, leadership competencies.

The course caters for – and intentionally designed for – a wide range of life and career stages: just-finished undergraduates, recent graduates and early- to mid-career professionals. It combines directed teaching, self-regulated learning, structured engagement, formal assessment, and regular interaction with practitioners.

### Course structure

The course objectives are addressed through a 'foundations module', eight core modules, two electives and a dissertation. The learning objectives of the module are as follows:

#### Foundations of Net Zero and Sustainable Development

- Define and situate the concepts of net zero, sustainable development and enterprise and analyse their interrelationships
- Understand the nature, drivers and trajectories of climate change and analyse mitigation strategies
- Account for the complex interdependencies between ecological, social and economic systems.

#### Module 1: Systems Change, Enterprise, and Innovation

- Demonstrate a comprehensive understanding of the role of private enterprise (business) as a cause of – but also solution to – social and environmental wicked problems such as climate change.
- Determine opportunities and challenges for new forms of collaboration and innovation between public, private and nongovernmental organisations.
- Critically analyse the past, present and future of business models and value chains and the implications of models for getting to net-zero, sustainable development.
- Account for the multiple oft-conflicting interests between private enterprise and their stakeholders; appreciate the role of incentive and disincentive structures as a medium for changing the behaviour of enterprise.
- Critically situate the place of private enterprise within broader systems and explain the interdependencies between private enterprise, society and nature.

#### Module 2: Methods and Data

- Critically analyse the role of the scientific method of inquiry in the production of knowledge and evaluate how and why scientific data is used by different actors within society.
- Understand and apply qualitative and quantitative methods to measure progress and attribute impact pertaining to NZSD.

- Comprehend the strengths, weaknesses and limitations of different methodological approaches and demonstrate sound judgement in selecting and applying the optimal approach to the given context.
- Apply a critical lens to data and data-driven methods – including biases – and analyse how data is used in decision-making pertaining to NZSD.
- Understand, and apply in the context of NZSD, advanced techniques in data science, complexity science and A.I.

### **Module 3: New Environmental Economic Thinking**

- Identify the limitations of conventional economic models for addressing NZSD.
- Integrate new thinking “outside” of conventional economics (eg complexity theory, climate science) into economic and policy analysis.
- Become comfortable using analytical frameworks that capture multiple equilibria, coordination, complementarities, lock-in, path dependence, and tipping points.
- Draw insights from complex datasets such as patent, social, and export networks.
- Acquire the ability to go from real-world problems with these features to possible solutions.

### **Module 4: Spaces, Infrastructure and Technology for Net Zero, Sustainable Development**

- Understand and contextualise disruptive drivers that are re-shaping economic, social and environmental relationships.
- Engage critically with these issues through the lens of infrastructure and technology and debate the implications of glocalization and urbanization for NZSD.
- Develop an applied understanding of constructive responses to these disruptive drivers.

### **Module 5: Sustainable Finance**

- Develop sufficient understanding to navigate and critically analyse the key aspects and developments in sustainable finance and investment.
- Engage critically with systems and theories in sustainable finance and investment.
- Consider how to translate knowledge into strategies for effective engagement with the financial sector.

### **Module 6: Socio-technical Interventions and Sustainable Law**

- Compare and critique frameworks for contextualising, understanding and applying the dynamics of sociotechnical transitions and interventions that might drive and accelerate change towards net zero sustainable development.
- Engage critically with this goal through the lens of understanding the speed of transition possible in each of the socio-technical frontiers of policymaking, finance, law, behaviours and norms, and technologies, and understand their potential for cascading interaction.
- Identify and constructively stimulate interventions in each of these socio-technical frontiers to drive sustainable decarbonisation, and critically analyse the strengths, weaknesses and trade-offs of different approaches.
- Engage in benchmarking and comparative exercises, through case studies, to critically analyse both successful and less successful transitions and interventions and derive takeaways from these examples.

### **Module 7: Natural Capital, Markets and Society**

- Identify the causes and consequences of institutional and market failures to value and manage natural capital.
- Understand and compare different models of governing natural capital and identify strengths and weaknesses of different types across a range of contexts.
- Learn and apply methods for designing and evaluating natural capital markets and institutions, whilst leveraging and integrating relevant natural science and technical knowledge.
- Examine and debate case studies of valuing and managing natural capital across climate, energy, water, food and biodiversity.

### **Module 8: Water, Inequalities and Social Enterprise**

- Introduce social theory and methods related to social inequalities and water risks.
- Examine and evaluate methods, concepts and frameworks in the context of water-related enterprise.
- Explore processes shaping global and national discourse and debates related to sustainable development goals.
- Apply methods, concepts and frameworks to case study material on how water inequalities interact with natural science perspectives and water management practices.

## **Teaching and Learning**

Teaching takes place through lectures, seminars, workshops and field trips, which provide in-depth exploration of key issues. The elective modules offer a tutorial-style teaching and discussion environment in smaller groups. Teaching is delivered by core faculty from the Smith School and School of Geography and the Environment - as well as from other departments across the University - and guest lecturers from enterprise, including some of the Smith School's Business Fellows.

The course is structured across three terms, following a progression from broad-based concepts and skills to increasing application and engagement.

1. Nature and sources of climate emergency and development challenges, including scientific underpinnings and conceptual building blocks aimed at framing and understanding the problems and trade-offs posed by NZSD: Michaelmas term.
2. Integrated assessment of potential solutions and pathways, offering applications and solutions: Hilary term.
3. Implementation of knowledge and solutions through the enterprise forum and dissertation preparation: Trinity term.

## Dissertation

An independent and original dissertation is an integral component of the course and enables students to translate their foundational and applied knowledge to a context/challenge related to enterprise and NZSD. Training in qualitative and quantitative methods, data and research design and research skills will help you to develop transferable skills, carry out independent and original research and master methods used widely in academic and professional research.

## Integrating impact and enterprise

The course aims to equip students with knowledge, skills and networks to understand and accelerate NZSD. As such, the theme of achieving impact runs through all course modules, and is integrated in a number of specific ways:

1. The enterprise forum will run in parallel with the core modules throughout course. It will form the focal point for engagement with enterprise, and will give students the chance to work with enterprise from the outset and put their learnings into practice, bringing to life the key concepts explored in the core modules. The enterprise forum will include leadership skills development, mentorship, and case-based learning, as well as being an incubator for dissertations. The enterprise forum will also be a standing feature of weekly course meetings, providing a roadmap for the field trips, group projects and dissertation research involving enterprise partners.
2. Regular guest lectures from enterprise partners will complement the core modules, and enterprise partners will help to identify and possibly participate in dissertation projects.
3. The course will involve practicums with partners in public and private enterprise, such as innovative workshops, hackathons and related activities.
4. Field trips will explore the role of enterprise in tackling the NZSD challenges. Two one-day trips will take place in each of Michaelmas and Hilary Terms. An induction field trip will also take place in Michaelmas term introduction week. In addition, a field trip at the end of Hilary term will be a week-long capstone, where students will visit a selected region to connect individual companies and their supply chains in order to bring to life key concepts and enable students to apply their learning.

## Supervision

The allocation of graduate supervision for this course is the responsibility of the School of Geography and the Environment (SoGE) and it is not always possible to accommodate the preferences of incoming graduate students to work with a particular member of staff. Under exceptional circumstances a supervisor may be found outside the School of Geography and the Environment.

Dissertation supervision will equate to approximately eight hours in total per student, in line with SoGE guidelines. As such, it is likely that a student will meet with their supervisor at a minimum once a fortnight or most likely once a week. The frequency of supervision meetings will likely change depending on the stage of the dissertation that the student is at and their unique needs. Supervision meetings will commence late in Hilary Term and conclude at the end of Trinity Term.

The Course Director will work closely with each student to try and match their theoretical and contextual interests with an appropriate supervisor. Regarding differences between part-time and full-time versions of the course and according adjustments to supervisor arrangements, this does not apply as the MSc is only offered on a full-time basis. For any students doing the MSc alongside an MBA as part of the 1+1 programme, any necessary adjustments to supervision will be made.

## Assessment

The core modules are assessed by written examination. The two elective modules are each assessed by an essay. You will also be assessed on your individual dissertation, which will have been produced independently and contain original work.

## Changes to courses

The University will seek to deliver this course in accordance with the description set out above. However, there may be situations in which it is desirable or necessary for the University to make changes in course provision, either before or after registration. These may include significant changes made necessary by a pandemic (including Covid-19), epidemic or local health emergency. For further information, please see the University's Terms and Conditions (<http://www.graduate.ox.ac.uk/terms>) and our page on changes to courses (<http://www.graduate.ox.ac.uk/coursechanges>).

**Expected length of course**

	<b>Full Time Only</b>
<b>Expected length</b>	12 months

## Costs

### Annual fees for entry in 2023-24

Fee status	Annual Course fees
Home	£25,170
Overseas	£39,280

### Information about course fees

Course fees are payable each year, for the duration of your fee liability (your fee liability is the length of time for which you are required to pay course fees). For courses lasting longer than one year, please be aware that fees will usually increase annually. Information about how much fees and other costs may increase is set out in the University's Terms and Conditions (<http://www.graduate.ox.ac.uk/terms>).

Course fees cover your teaching as well as other academic services and facilities provided to support your studies. Unless specified in the additional cost information (below), course fees do not cover your accommodation, residential costs or other living costs. They also don't cover any additional costs and charges that are outlined in the additional cost information.

### Additional cost information

There are no compulsory elements of this course that entail additional costs beyond fees and living costs. However, as part of your course requirements, you may need to choose a dissertation, a project or a thesis topic. Please note that, depending on your choice of topic and the research required to complete it, you may incur additional expenses, such as travel expenses, research expenses, and field trips. You will need to meet these additional costs, although you may be able to apply for small grants from your department and/or college to help you cover some of these expenses.

Most costs associated with compulsory fieldwork are paid for by the department. This excludes the costs associated with obtaining the appropriate visa required to attend the non-UK based field trips. Non-EEA nationals might require a visa in order to travel to the country where the field trip is being held and any costs associated with obtaining the appropriate travel visa is the responsibility of the student. Students will also have to pay for some meals during the field course. Furthermore, as part of your course requirements you need to develop and research a dissertation topic. Depending on your choice of topic and the field work research required to complete it, you may incur additional costs (eg relating to travel, accommodation, field assistants, lab fees and/or research visas). You will need to meet these additional costs, although you may be able to apply for small grants/bursaries from your department and/or college to help you cover some of these expenses.

## Living costs

In addition to your course fees, you will need to ensure that you have adequate funds to support your living costs for the duration of your course.

The likely living costs for 2023-24 are published below. These costs are based on a single, full-time graduate student, with no dependants, living in Oxford. We provide the cost per month so you can multiply up by the number of months you expect to live in Oxford.

### Likely living costs for one month

	Lower range	Upper range
<b>Food</b>	£300	£470
<b>Accommodation</b>	£715	£860
<b>Personal items</b>	£180	£305
<b>Social activities</b>	£40	£90
<b>Study costs</b>	£35	£80
<b>Other</b>	£20	£35
<b>Total</b>	£1,290	£1,840

### Likely living costs for nine months

	Lower range	Upper range
<b>Food</b>	£2,700	£4,230
<b>Accommodation</b>	£6,435	£7,740
<b>Personal items</b>	£1,620	£2,745
<b>Social activities</b>	£360	£810
<b>Study costs</b>	£315	£720
<b>Other</b>	£180	£315
<b>Total</b>	£11,610	£16,560

### Likely living costs for twelve months

	Lower range	Upper range
<b>Food</b>	£3,600	£5,640
<b>Accommodation</b>	£8,580	£10,320
<b>Personal items</b>	£2,160	£3,660
<b>Social activities</b>	£480	£1,080
<b>Study costs</b>	£420	£960
<b>Other</b>	£240	£420
<b>Total</b>	£15,480	£22,080

When planning your finances for any future years of study at Oxford beyond 2023-24, it is suggested that you allow for potential increases in living expenses of 5% or more each year – although this rate may vary significantly depending on how the national economic situation develops.

More information about how these figures have been calculated is available at [www.graduate.ox.ac.uk/livingcosts](http://www.graduate.ox.ac.uk/livingcosts).

## Document accessibility

If you require an accessible version of the document please contact Graduate Admissions and Recruitment by email ([graduate.admissions@admin.ox.ac.uk](mailto:graduate.admissions@admin.ox.ac.uk)) or via the online form (<http://www.graduate.ox.ac.uk/ask>).