Course Information Sheet for entry in 2024-25:
MSc in Social Data Science

Course facts

Mode of study	Full Time Only
Expected length	10 months

About the course

The multidisciplinary MSc in Social Data Science welcomes students with an interest in applying quantitative and computational methods to questions of social and political significance for academics, policymakers, and the public.

With the rapid expansion of big data and artificial intelligence (AI) in society there is a need both to understand how to best make use of these tools, as well as to consider their social implications from a practical and grounded perspective. This is an applied program that combines machine learning, multivariate statistics, mixed-methods research, and a substantive focus on social, ethical, and legal considerations for AI and data broadly and for the governance and regulation of the internet more specifically.

The MSc in Social Data Science is primarily assessed by essays that apply these methods to a substantive research question. This involves motivating the question with domain-level academic expertise and motivating the analysis with an understanding of the potential and limits of specific (usually computational) methodologies.

The three term MSc is designed for students with some familiarity with programming and a strong background in social sciences, although applications are welcomed from all disciplinary backgrounds who meet the formal requirements. The course is administered by the Oxford Internet Institute, a department within the Social Sciences Division. Teaching and supervision faculty are drawn from the department as well as a variety of departments around the University including but not limited to Engineering Science, Mathematics, Linguistics, Statistics, and Sociology. It is an ideal course for ambitious students at the intersection of computing and the social sciences who are seeking careers with data in the public, private, and non-profit sectors.

You will join a cohesive cohort and will be expected to dedicate around 40 hours to this course each week during term, and to undertake further study and complete assessments during termly vacation periods. During Michaelmas and Hilary terms, this equates to roughly 10 and 15 hours each week for each course taken.

In the first term (Michaelmas), this includes:

- At least 20 hours per week on reading, preparation and formative assignments (ten hours for the intensive course, five hours for each of the two foundation courses)
- 16 to 20 hours per week in classes (typically one and a half to two hours of lectures daily, one and a half to two hours of tutorials and practical exercises three-four days a week, plus additional seminars or workshops on certain courses)

In the second (Hilary) term, this includes:

- At least 24 hours per week on reading, preparation and formative assignments (6 hours for each core/option course)
- Ten to 12 hours per week in classes (typically one and a half to two hours of lectures per course, plus a one hour seminar or workshop on certain core and methods-based courses)

Due to the intensive nature of the taught portion of this course, there is no part-time option available. However, students continuing on to doctoral study have the option of taking a part-time DPhil.

Compulsory Intensive Courses

Three compulsory intensive courses run during the first term:

Fundamentals of Social Data Science

This course is a four week intensive primer to get people up to speed on programming in the Python programming language for use with data science.

Data Analytics at Scale

The course will teach computational complexity and how to profile and increase the computational efficiency of Python code. It will also cover parallel and distributed computing approaches, and discuss data storage and retrieval techniques.

Machine Learning

Machine learning algorithms can discover patterns and hidden structure in data and use these for prediction of future data. This course covers the fundamentals of both supervised and unsupervised learning.

Compulsory Foundation Courses

Five compulsory foundation courses run over the course of the MSc. During the first term you will study Foundations of Social Data Science, and Applied Analytics Statistics. During the second term you will study Frontiers of Social Data Science, and Research Design for Social Data Science. Finally, during the third term you will take Foundations of Visualisation.

Foundations of Social Data Science

This course will introduce to some of the fundamental questions that have been raised in this domain across the social sciences.

Applied Analytics Statistics

Applied analytical statistics is a course focusing on the tools and techniques used by social scientists to understand, describe and analyse (quantitative) data.

Frontiers of Social Data Science

This course will take a look into the future and focus on the emerging role of data by looking at specific contexts and issues.

Research Design for Social Data Science

This course introduces students to conceptual and methodological aspects of social science research methods, including both quantitative and qualitative methods.

Foundations of Visualisation

This course centres around discussion of the two-way interaction between visualisation and the social sciences.

Option subjects

You will take two option modules during the second term of the year. Option modules run for eight weeks. Recent option modules have included:

- Applied Machine Learning
- Digital Era Government and Politics
- Experiments in Social Data Science
- Fairness Accountability and Transparency in Machine Learning
- Human and Data Intelligence
- Internet Economics
- Introduction to Natural Language Processing for the Social Sciences
- Social Network Analysis and Interpretation
- Data-driven Network Science

Please note that not all options run every year.

Supervision

The allocation of graduate supervision for this course is the responsibility of the Oxford Internet Institute and it is not always possible to accommodate the preferences of incoming graduate students to work with a particular member of staff.

You can expect to meet with your supervisor eight to ten times over the course of the degree. You will be assigned a general supervisor in your first term who will be the point of contact for keeping an eye on your academic progress. In the second term (Hilary term), you will be reassigned to a thesis supervisor in order to ensure that student needs and skills are properly matched.

Thesis supervisors are responsible for giving written feedback on at least one complete draft of your thesis prior to submission as well as additional advice on research design, data access, and analysis methods.

Assessment

You will find a summary of how the different elements of the MSc are assessed below. Further information can be found on the course page of the department's website (please see *Further information and enquiries*).

First Term (Michaelmas)

- Introduction to Data Science and Machine Learning: short duration take-home submission assessing the content of the three compulsory intensive papers (Fundamentals of Social Data Science, Data Analytics of Scale, and Machine Learning)
- Compulsory foundation course Foundations of Social Data Science: submission (essay)
- Compulsory foundation course Applied Analytical Statistics: submission (research project)

Second Term (Hilary)

- Compulsory foundation course Frontiers of Social Data Science: submission (essay)
- Compulsory foundation course Research Design for Social Data Science: submission (essay)
- Option paper 1: submission (essay or project)
- Option paper 2: submission (essay or project)

You will be generally able to apply to access, review, and make use of resources from the available option courses even if you don't attend that specific course for credit. During each course you will receive regular feedback on formative exercises, assignments, and essays. This feedback does not count towards your final mark but prepares you for the graded summative work due after the completion of each course.

Third Term (Trinity)

- Compulsory foundation course Foundations of Visualisation: unassessed
- Thesis

In the third term, you will be assessed by a thesis on a topic of your choosing in consultation with your thesis supervisor. Planning for this thesis takes place in the second and third terms. In the third term this partially occurs through a non-graded research seminar where you will showcase your work in progress.

Changes to this course

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 you commence your course. These might include significant changes made necessary by any pandemic, 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).

Costs

Annual fees for entry in 2024-25

Fee status	Annual Course fees
Home	£27,260
Overseas	£33,970

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 will need to choose dissertation, project or thesis topics. 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.

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 2024-25 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
Food	£315	£495
Accommodation	£745	£925
Personal items	£190	£320
Social activities	£40	£95
Study costs	£35	£85
Other	£20	£35
Total	£1,345	£1,955

Likely living costs for nine months

	Lower range	Upper range
Food	£2,835	£4,445
Accommodation	£6,705	£8,325
Personal items	£1,710	£2,880
Social activities	£360	£855
Study costs	£315	£765
Other	£180	£315
Total	£12,105	£17,595

Likely living costs for twelve months

	Lower range	Upper range
Food	£3,780	£5,940
Accommodation	£8,940	£11,100
Personal items	£2,280	£3,840
Social activities	£480	£1,140
Study costs	£420	£1,020
Other	£240	£420
Total	£16,140	£23,460

When planning your finances for any future years of study at Oxford beyond 2024-25, it is suggested that you allow for potential increases in living expenses of 5% or more each year – although this rate may vary depending on the national economic situation.

More information about how these figures have been calculated is available at www.graduate.ox.ac.uk/livingcosts.

Document accessibility

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