



School of Social Sciences  
and Philosophy  
Department of  
Political Science

# MSc Applied Social Data Science



Trinity College Dublin  
Coláiste na Tríonóide, Baile Átha Cliath  
The University of Dublin



## Department of Political Science

Trinity College Dublin is recognised internationally as Ireland's leading university and as one of the top universities in the world. Trinity was founded in 1592, and today the university is a lively and cosmopolitan community of students from around the globe. Its bustling 47-acre campus is the ideal environment for studying, learning, relaxing, and living. Political science has been an important part of the curriculum since 1855 and Trinity College has developed an international reputation for its research work on the European Union, comparative politics, comparative public opinion, international relations as well as democracy and development. It is a vibrant, outward-looking department that combines intensive research activity with the strongest commitment to high-quality undergraduate and postgraduate teaching.

### MSc in Applied Social Data Science

The MSc in Applied Social Data Science is a one-year, full-time programme that consists of taught modules and a dissertation. The taught modules will cover topics such as applied statistical analysis, machine learning, quantitative text analysis, and spatial data analysis, as well as other specialized topics in social data science. The dissertation will provide students with the opportunity to apply their skills to a real-world problem, under the supervision of a faculty member.

On completing the programme, graduates of the MSc in Applied Social Data Science at Trinity College Dublin will be well-equipped for a wide range of careers in the public, private, and non-profit sectors. Data science is a rapidly growing field, and demand for professionals with expertise in applied social data science is high. Some potential job opportunities for graduates of the programme include data scientist, social media analyst, policy analyst, and market researcher.

The MSc in Applied Social Data Science is suitable for students with a background in social sciences, computer science, or a related field. It is also suitable for professionals who are looking to develop their data science skills and apply them to social problems.

## Course Structure and Assessment

All course modules are taught around a weekly seminar and assessed mainly on the basis of assignments, with some exams. The course is structured around the following components:

- > In the first semester, students take core modules on the fundamentals of computer programming, statistical analysis and research design.
- > In the second semester, students may choose from a range of optional modules which include: Social Forecasting; Quantitative Text Analysis for Social Scientists; Experimental Methods for Social Scientists; and Spatial Data Analysis.
- > The course concludes with students writing a dissertation under the supervision of a staff member.



### Modules at a Glance

- > Computer Programming for Social Scientists
- > Applied Statistical Analysis I&II
- > Research Design for the Social Sciences
- > Applied Statistical Analysis II
- > Introduction to Machine Learning
- > Social Forecasting
- > Quantitative Text Analysis for Social Scientists
- > Experimental Methods for Social Scientists
- > Spatial Data Analysis
- > Dissertation



#### Testimonial:

**“The ASDS course gave me a strong foundation in the hard skills of data science while remaining grounded in its practical applications, and allowed me the freedom to explore my own interest areas. Thanks to this course my research and my confidence in my quantitative skills has greatly improved. The skills I learned have also opened job opportunities for me that I would not have had I not done this course.”**

**Kathryn Glen** (Class of 2021)

# Career Opportunities

A unique trait of the MSc in Applied Social Data Science programme is that it combines rigorous training in methods from computer science and statistics with social science research skills. There is high demand for social scientists who can apply machine learning and statistical methods for data-driven solutions to challenges faced by governments, political groups, and civil society organizations. For instance, Government agencies seek employees with experience in applying statistical forecasting methods to predict international conflict, terrorism, and disease outbreaks. Non-profit organizations are keen to hire people who are able to apply machine learning and natural language processing methods to help create data-driven solutions for disabled people. The following are just a few examples of the diverse organisations where MSc graduates work:



## Admission Requirements

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Candidates should normally have achieved an upper second-class honours degree, or higher from an established university. GPAs of at least 3.3 out of 4, or equivalent, will be expected from international applicants. A background in a social science will be an advantage but not a necessity. Applicants must, in addition to the College requirements, provide academic transcripts, two letters of recommendation, a motivation letter, and one piece of written work (for example, an undergraduate dissertation or essay). All applicants whose first language is not English or who have not been educated through the medium of English will need to present evidence of English language competency.

## How to Apply

If you are interested in applying for this programme, please register your interest online at:

<https://www.tcd.ie/courses/postgraduate/courses/applied-social-data-science-msc-pgraddip/>