



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

School of Social Sciences and
Philosophy

MSc in Applied Social Data Science 2023 - 2024



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1 GENERAL COURSE INFORMATION

1.1 Introduction

Welcome to the MSc in Applied Social Data Science course at Trinity College Dublin. We are delighted you have decided to study with us.

As you know, our MSc course in Applied Social Data Science offers MSc students rigorous training in the application of state-of-the-art analytic approaches from the fields of statistics and machine learning to the study of social scientific questions. Graduates of the course will acquire a rich repertoire of social scientific research design skills and data analytic methods that are in high demand in the private, public, and non-profit sectors.

You will find in this handbook a detailed description of the work you need to complete during our programme. Your individual timetable will be available to you via your online student portal at my.tcd.ie.

Please read this handbook carefully, especially the parts dealing specifically with course content and our expectations of MSc students. We are of course happy to answer any questions you may have.

Welcome to Trinity College Dublin, and I look forward to your time with us.

Dr Jeffrey Ziegler

Course Director, Applied Social Data Science

1.2 Contact Details

| Staff Name | Role/Title | Contact |
|--------------------|---|--|
| Prof. Paul O'Grady | Head of School | pogradey@tcd.ie |
| Dr Tara Mitchell | Director of Teaching & Learning – PG | mitchet@tcd.ie |
| Prof. Peter Stone | Head of Department | pstone@tcd.ie |
| Dr Jeffrey Ziegler | Course Director | zieglerj@tcd.ie |
| Michael Enearu | Course Administrator | pgdip-asds@tcd.ie |

1.3 Programme-Specific Locations

Please see interactive campus maps [here](#).

- The Political Science Department is located on the fourth and fifth floors of 1 College Green building, just off the west end of the main campus. All instructors for the course can be found here unless otherwise indicated.
Note: 1 – 5 College Green is a combined building, the main entrance is at 3 College Green. Turn left on exiting the main lift or staircase in order to reach 1 College Green. If taking the lift to the fifth floor of 1 College Green, press *four*; if taking the lift to the fourth floor of 1 College Green, press *three*.
- The Arts Building, East End Development, and Lloyd Institute (on the main campus) host the majority of lectures. For information on building locations, you may access the College Maps interactive page here: <https://www.tcd.ie/Maps/map.php> The Course Administrator can be found in room 5.02, 4th Floor, 1 College Green, Trinity College Dublin.
- Blackboard is the College online learning environment, where lecturers will give access to material like lecture notes and discussion forums. The use of Blackboard varies from module to module and individual lecturers will speak to you about the requirements for their module. In order to access a module on Blackboard you should be registered to the module by your Course Administrator. Blackboard can be accessed here: <https://tcd.blackboard.com/webapps/login/>
- Your @tcd address **only** will be used for correspondence. You should check your email on a regular basis. When emailing the Administration, make sure to include your TCD Student ID Number.
- <https://my.tcd.ie> allows students to view their own central student record containing all relevant information related to the course for which they are registered. To access the

system you will need your College username and network password. If any details on your timetable/module list are incorrect, you should contact the Course Administrator.

- Academic Registry (“AR”) manages course registration and fees. Their website can be accessed here: <https://www.tcd.ie/academicregistry/>. If your personal student information listed on SITS is incorrect, you should email academic.registry@tcd.ie. Academic Registry is located in the Watts Building, on the east side of the main campus.

1.4 Key dates

Please see the Academic Year Structure here:

<https://www.tcd.ie/calendar/academic-year-structure/>

Michaelmas Term

| | |
|---------------------|--|
| 4th September 2023 | Voluntary 5-day Coding Camp. |
| 6th September 2023 | Mandatory Orientation Session for all incoming Applied Social Data Science students. |
| 11th September 2023 | MT instruction begins. |
| 11th December 2023 | Students submit dissertation topics to MSc Course Director. |
| 17th December 2023 | MT instruction finishes. |

Hilary Term

| | |
|-------------------|---|
| 15th January 2024 | Students assigned to dissertation supervisors. |
| 22nd January 2024 | HT instruction begins. |
| 11th March 2024 | Dissertation proposals due: Students send dissertation proposals to supervisor and MSc Director, indicating in 250 – 500 words 1) the research question to be answered; 2) why this question is significant; and 3) the methodology proposed to solve it. Students who may use interviews or similar processes for their dissertation research should at this time immediately contact the Department’s |

| | |
|---------------------------|--|
| | Research Committee Representative to obtain Ethical Approval. |
| 21st April 2024 | HT instruction finishes. |
| <u>Trinity Term</u> | |
| 22nd April | Dissertation Seminar Begins. |
| 22nd April – 4th May 2024 | Draft Dissertation is to be submitted to the supervisor between these dates. |
| 20th May 2024 | Assessment period finishes. |
| 24th May 2024 | End of dissertation supervision. |
| 12th August 2024 | Dissertations due. |

Please note that coursework and assignments may be expected during the period between the end of MT and HT (i.e., over the Christmas break). Further, assignments and assessments may continue to be due up to 6th May 2024, after which (unless reassessments are required) students are free to take on new activities.

1.5 Timetable

The course timetable will be available on the Departmental website (www.tcd.ie/Political_Science) shortly before the start of the Michaelmas term. Personal timetables will be available to students through my.tcd.ie.

2 ACADEMIC WRITING

2.1 Plagiarism and Referencing Guide

If you copy another student's essay, engage someone to write your work, quote material from any published or electronic source without acknowledgement, or extensively paraphrase such material without acknowledgement, you have committed the offence of plagiarism. A mark of zero may be awarded. The College's definition of plagiarism and specification of its consequences can be viewed on the Trinity website: <https://libguides.tcd.ie/academic-integrity>

These webpages are designed to help you to understand what plagiarism is and to employ the principles of academic integrity so as to avoid plagiarising. They also set out the regulations in Trinity relating to plagiarism offences and how they are dealt with.

The College Calendar defines plagiarism, gives examples of the kinds of actions that are deemed to constitute plagiarism, and elaborates on the procedures for dealing with plagiarism cases. It is essential that you read the Calendar entry that is relevant to you as a postgraduate student. The webpages also contain materials and advice on citation styles which are used to reference properly. You should familiarise yourself with the content of these pages. For further information please visit:

<https://libguides.tcd.ie/academic-integrity>

All students must complete our Ready Steady Write plagiarism tutorial and sign a declaration when submitting course work, whether in hard or soft copy or via Blackboard, confirming that you understand what plagiarism is and have completed the tutorial. If you read the information on plagiarism, complete the tutorial and still have difficulty understanding what plagiarism is and how to avoid it, please seek advice from your College tutor, your Course Director, your supervisor, or from Student Learning Development. To access this tutorial please visit: libguides.tcd.ie/academic-integrity/ready-steady-write

Plagiarism Declaration

Each coversheet that is attached to submitted work should contain the following completed declaration:

"I have read, and I understand the plagiarism provisions in the General Regulations of the University Calendar for the current year. I have also completed the Online Tutorial on avoiding plagiarism 'Ready Steady Write'.

Please refer to your relevant School/ Department for the format of essay submission coversheets.

Academic Integrity

It is clearly understood that all members of the academic community use and build on the work and ideas of others. However, it is essential that we do so with integrity, in an open and explicit manner, and with due acknowledgement. Any action or attempted action that undermines academic integrity and may result in an unfair academic advantage or disadvantage for any member of the academic community or wider society may be considered as academic misconduct. Examples of academic misconduct include, but are not limited to:

- **Plagiarism** - presenting work / ideas taken from other sources without proper acknowledgement. Submitting work as one's own for assessment or examination, which has, been done in whole or in part by someone else, or submitting work which has been created by using artificial intelligence tools, where this has not been expressly permitted.
- **Self-plagiarism** - recycling or borrowing content from the author's own previous work without citation and submitting it either for an assignment or an examination.
- **Collusion** - undisclosed collaboration of two or more people on an assignment or task, or examination, which is supposed to be completed individually.
- **Falsification/fabrication.**
- **Exam cheating** - action or behaviour that violates examination rules in an attempt to give one learner an unfair advantage over another.
- **Fraud/impersonation** - actions that are intended to deceive for unfair advantage by violating academic regulations. Using intentional deception to gain academic credit.
- **Contract cheating** - form of academic misconduct in which a person uses an undeclared and/or unauthorised third party to assist them to produce work for academic credit or progression, whether or not payment or other favour is involved. Contract cheating is any behaviour whereby a learner arranges to have another person or entity ('the provider') complete (in whole or in part) any assessment (e.g., exam, test, quiz, assignment, paper, project, problems) for the learner. If the provider is also a student, both students are in violation.

Further examples of the above available at www.tcd.ie/teaching-learning/academic-integrity

Academic Misconduct in the Context of Group Work

Student receives an informal verbal warning. The piece of work in question is inadmissible. The student is required to rephrase and correctly reference all plagiarised elements. Other content should not be altered. The resubmitted work will be assessed and marked without penalty. The DTL (Postgraduate) should inform the course director and where appropriate the course office. The offence is recorded.

Students should normally submit assessments and/or examinations done in co-operation with other students only when the cooperation is done with the full knowledge and permission of the lecturer concerned. Without this permission, submitting assessments and/or examinations which are the product of collaboration with other students may be considered to be academic misconduct.

When work is submitted as the result of a group project, it is the responsibility of all students in the group to ensure, so far as is possible, that no work submitted by the group is plagiarised, or that any other academic misconduct has taken place. In order to avoid academic misconduct in the context of collaboration and group work, it is particularly important to ensure that each student appropriately attributes work that is not their own. Should a module coordinator suspect academic misconduct in a group assignment, the procedure in cases of suspected academic misconduct must be followed for each student.

Avoiding Academic Misconduct

Students should ensure the integrity of their work by seeking advice from their module coordinator or supervisor on avoiding academic misconduct. All schools and departments must include, in their handbooks or other literature given to students, guidelines on the appropriate methodology for the kind of work that students will be expected to undertake. In addition, a general set of guidelines for students on avoiding academic misconduct is available at libguides.tcd.ie/academic-integrity

For further information including details of the procedure to be followed in case of suspected plagiarism, please refer to Section 1, 'Academic Integrity' (pages 30 & 31) of the Graduate Studies Academic Calendar: www.tcd.ie/calendar/graduate-studies-higher-degrees/complete-part-III.pdf

2.2 Research Ethics

We wish to draw your attention to the need for you to comply with the School's research ethics policy. Full details can be found at <http://www.tcd.ie/ssp/research/ethics/>. The most consequential aspect of this is that, should you be planning to observe, interview, poll, or experiment on human beings, you will need to get ethics approval. This involves completing a form that you will find via the link above and then having it approved/signed by the Department's Research Ethics representative. **Failure to comply with the School's research ethics policy could result in penalties, up to and including a zero mark for the assignment in question.**

Procedures regarding Dignity and Respect Matters

The School of Social Sciences and Philosophy is committed to fostering a learning environment that upholds principles of equality, diversity, and inclusion. We strive to ensure that all students and staff can pursue their academic and professional goals without fear of discrimination, harassment, bullying, or any form of mistreatment.

Recognizing the adverse impact harassment can have on individuals' performance, morale, confidence, health, and learning, the School seeks to create a culture where such behaviour is unequivocally condemned. Our goal is to encourage an atmosphere in which individuals can address harassment concerns without fear of ridicule or retaliation.

[Trinity Dignity and Respect Policy](#) serves as a guiding framework for addressing any matters related to dignity and respect. This policy outlines the resources and support available to both students and staff when facing issues related to harassment or discrimination.

Should any student encounter issues related to dignity and respect, as outlined above, we strongly urge them to immediately reach out for support from the designated contact person, who will provide guidance and support in accordance with the Dignity and Respect Policy:

Course Director, MSc in Applied Social Data Science: Dr Jeffrey Ziegler (zieglerj@tcd.ie)

Director, Teaching and Learning (Postgraduate): Dr Tara Mitchell (mitchet@tcd.ie)

Postgraduate Advisory Service

Trinity College Dublin, the University of Dublin is committed to delivering world class service to its postgraduate community. In this regard, the College offers free, independent, and confidential support as well as guidance and advocacy to registered postgraduate students at the College. You can learn more about PAS [here](#).

3 TEACHING AND LEARNING

3.1 Course Structure

The MSc in Applied Social Data Science course is designed to run for one year on a full-time basis. The course commences on the Monday of the first teaching week in the College's academic year structure in mid-September.

The course is structured around two terms, each of which is compulsory. In each term, students take modules summing to 30 ECTS. There is also a 30 ECTS dissertation component. Thus, the MSc degree programme sums to 90 ECTS. Most modules in the ASDS programme are taught around weekly lectures and tutorials, with assessment based upon participation, short assignments (e.g., problem sets), and papers. Students are expected to attend class and tutorial every week. In addition, please note that written work can be assigned during study week and between term times.

The final MSc is awarded in accordance with University convention as either Pass, Merit, or Distinction (see section 3.7 below). The MSc is a [level nine QQI – NFQ](#) qualification.

The Department reserves the right to change or cancel any module for reasons of low enrolment.

3.2 Course Workload

The European Credit Transfer and Accumulation System (ECTS) is an academic credit system based on the estimated student workload required to achieve the objectives of a module or programme of study. It is designed to enable academic recognition for periods of study, to facilitate student mobility and credit accumulation and transfer. The ECTS is the recommended credit system for higher education in Ireland and across the European Higher Education Area.

The ECTS weighting for a module is a measure of the student input or workload required for that module, based on factors such as the number of contact hours, the number and length of written or verbally presented assessment exercises, class preparation and private study time, laboratory classes, examinations, clinical attendance, professional training placements, and so on as appropriate. There is no intrinsic relationship between the credit volume of a module and its level of difficulty. 1 credit represents 20-25 hours estimated student input, so a 10-credit module will be designed to require 200-250 hours of student input including class contact time, assessments and examinations.

ECTS credits are awarded to a student only upon successful completion of the programme year. The modules in the ASDS programme are as follows:

| Module Code | Module Title | Term | Weighting |
|-------------|--|------|-----------|
| POP77001 | Computer Programming for Social Scientists | MT | 10 ECTS |
| POP77003 | Applied Statistical Analysis I | MT | 10 ECTS |
| POP77011 | Research Design for the Social Sciences | MT | 10 ECTS |
| POP77004 | Applied Statistical Analysis II | HT | 10 ECTS |
| CSP7001 | Introduction to Machine Learning | HT | 5 ECTS |
| POP77034 | Experimental Methods for Social Scientists | HT | 5 ECTS |
| POP77022 | Quantitative Text Analysis for Social Scientists | HT | 5 ECTS |
| POP77014 | Social Forecasting | HT | 5 ECTS |
| POP77044 | Spatial Data Analysis | HT | 5 ECTS |
| POP77054 | Dimensionality Reduction | HT | 5 ECTS |
| POP77100 | Dissertation | HT | 30 ECTS |

3.3 Module Descriptors

Module descriptors and timetables will be available on the Departmental website shortly before the start of each term:

https://www.tcd.ie/Political_Science/programmes/postgraduate/pg-dip-applied-social-data-science/

3.4 Learning Outcomes

The course aims to provide students with the necessary skills for a range of research-related careers, as well as careers in other areas. It is suitable for students who wish to progress to doctoral research, or to pursue careers in applied data science research, the civil service, international organisations, non-governmental organisations, or the media.

After successfully completing this course, students should be able to:

- Acquire an understanding of fundamental components of applied data science, computational methods, including computer programming, and quantitative research methods.
- Demonstrate fluency in a range of programming languages and practical research applications with R and Python.
- Critically engage with, evaluate and appraise quantitative social scientific literature.
- Effectively manage and manipulate large datasets using cutting edge data management techniques.
- Apply social scientific research methodologies to effectively design and execute social science research projects.

After successfully completing the dissertation, students should be able to:

- Identify a research question worthy of sustained scholarly attention;

- Design a research plan appropriate to answering that question within given time and resource constraints;
- Implement all stages of that research design independently, including the structured collection of new information, the application of appropriate analytical techniques and the interpretation of the results; Present their research in written form in a manner that withstands scrutiny.

3.5 Dissertation

Students are required to submit a dissertation of 10,000 words on a research question of their choice in the area relevant to their degree programme. Dissertations should be of an empirical nature, providing an explanation for observable variation in social phenomena, building on social science scholarship.

Students will be assigned a dissertation supervisor at the beginning of Hilary Term. Dissertation topics will be agreed upon between the student and their supervisor. Dissertation proposals will be submitted to the supervisor by the 11th of March 2024. Students will be expected to participate in the Dissertation Seminar which is held during Trinity Term. A draft dissertation is to be submitted to the supervisor between the 22nd of April and 4th of May 2024, whereupon written feedback will be returned to the student. Following this, the student will conduct independent research on the dissertation until the deadline, which is the 12th of August 2024.

The examiners are instructed to assess the dissertation according to the standards commonly used for peer-reviewed journals. In particular, examiners assess:

- the importance of the research question in the context of the academic literature and the appropriateness of its formulation;
- the appropriateness of the evidence basis examined and the analytical tools brought to bear;
- the extent to which the interpretations and conclusions are justified on the basis of the analytical results, and;
- the contribution that the dissertation makes to knowledge on the particular question it addresses.

The dissertation is marked by two readers, who will agree on a mark on the main numerical grading scale. The external examiner will be consulted where there is a significant disagreement between marks given by two examiners and for any dissertation deemed to have failed or achieved 70+. If a student passes the taught elements of the course but is deemed to have failed the dissertation, the student may request a viva voce examination in which he or she may defend the dissertation. Students are required to be present in Dublin during the Court of Examiners meeting, usually held between mid-September and mid-October, if they wish to avail of this option.

Regulations on repeating a Masters dissertation can be found at the following link: [section-III](#).

3.6 Coursework Requirements

The coursework requirements for each individual module will be detailed in the relevant module syllabus.

Documentation

The Department does not require that sources be documented in any particular format. If you are unsure about what reference format to use, however, we recommend the American Political Science Association Style Manual, at <https://connect.apsanet.org/stylemanual/>. This style manual is generally an excellent resource for writing social science papers.

Late Work

All late work, unless excused in advance by the module lecturer, or justified by medical certificate, will be penalised at a rate of 5 marks per day. Under no circumstances will work be accepted after the set work has been marked and handed back to other students, or after the end of Hilary teaching term.

Plagiarism Declaration

Each coversheet that is attached to submitted work should contain the following completed declaration:

"I have read and I understand the plagiarism provisions in the General Regulations of the University Calendar for the current year, found at <http://www.tcd.ie/calendar>.

I have also completed the Online Tutorial on avoiding plagiarism 'Ready Steady Write', located at <http://tcd-ie.libguides.com/plagiarism/ready-steadywrite>."

3.7 Attendance Requirements

Attendance is not optional. Absences should be cleared with the relevant instructor, who should be provided with medical or other documentation as appropriate.

See Part III of the Calendar for College regulations regarding attendance and 'Off-Books' status: <https://www.tcd.ie/calendar/>

3.8 Marking Scale, Assessment, and Progression

The ASDS MSc uses the following grading scheme for overall module assessment:

- Excellent: 70 – 100
- Good: 60 – 69
- Fair: 50- 59
- Condonable Fail: 40 – 49
- Unconsonable Fail: 0 – 39

The final mark for the course is based on a credit-weighted average of the mark awarded in each module. Students must obtain credit for the academic year of their course by satisfactory completion of all course requirements. The MSc is awarded in accordance with University convention as either Pass or Distinction. In addition, the Department of Political Science may award the predicate Merit to a student whose overall performance falls between these categories.

| | |
|--------------------|--|
| Pass | <p>The pass mark for the programme is 50%. To obtain the MSc, students must achieve <u>all</u> of the following:</p> <ul style="list-style-type: none"> • an overall (weighted) average pass mark of 50% in the taught elements of the course; • pass marks in individual modules amounting to at least 50 ECTS • pass marks in Applied Statistical Analysis I and II • a mark of not less than 40% in the remaining modules; and a pass mark for the dissertation |
| Merit | <p>The Department may recommend that the MSc be awarded with the predication 'Merit' to students who achieve an overall (weighted) average mark across all taught modules of at least 60%, where modules amounting to at least 30 credits have a mark of 60% or above, as well as a mark for the dissertation of at least 60.</p> <p>A merit cannot be awarded where the candidate has failed any credit during the course.</p> |
| Distinction | <p>The Department may recommend that the MSc be awarded with the predication 'Distinction' to students who achieve an overall (weighted) average mark across all taught modules of at least 70%, where modules amounting to at least 30 credits have a mark of 70% or above, as well as a mark for the dissertation of at least 70.</p> <p>A distinction cannot be awarded where the candidate has failed any credit during the course.</p> |

The following information relates to all examination results:

- 1 All MSc examination results are published anonymously under a student's registered number.
- 2 Students who successfully complete their programme will have the qualification, where appropriate, awarded under their registered name and within grade.

Note that all marks given during the year are provisional and subject to change by the external examiner at the end of the year. After a lecturer has returned marks to students at the end of a module, they may not be changed other than at the Court of Examiners meeting at the end of the year.

Grades and comments for module work should be returned in a prompt manner, and students should politely approach instructors for module grades if they have not been provided by the end of first week of the following term.

Supplemental re-assessment/examinations and compensatable/noncompensatable modules

Supplementals:

- Students who fail to achieve an overall pass mark even after the application of compensation regulations to the annual results will be allowed to take supplemental assessments for each of the failed modules. The supplemental assessment for each module will consist of a local examination which will be scheduled to take place between May and the second week of June.
- Students are required to achieve a pass mark of 50% for both Applied Stats I & II. Students who fail any of these modules will be required to sit reassessment examinations.
- Students who receive a grade less than 40% in any module will be required to sit reassessment examinations.
- The Supplemental assessment for each failed module, if required, will account for 100% of the supplemental module mark. Supplemental marks will be capped at the pass mark.
- Candidates who are unsuccessful at the supplementals will not be permitted to repeat the year and will not be permitted to progress to submission of dissertation.
- Students who have passed at the annual session are not permitted to present at

the supplemental session in order to improve their performance.

Supplemental reassessments/examinations will be scheduled in due course and will take place in May.

3.9 External Examiner

Dr Travis Coan, University of Exeter.

3.10 Student Feedback and Evaluation

Evaluation of courses and their constituent modules is an important component of College's commitment towards improving the quality of teaching and the support of learning. To this end, all postgraduate programmes that are taught by the School of Social Sciences and Philosophy are evaluated on a yearly basis using an online survey. This survey is anonymous, and the results are used in reviewing and improving aspects of each programme and its delivery.

3.11 Postgraduate Supports for Students with Disabilities

Postgraduate students (both taught and research) who have a disability are encouraged to apply to the Disability Service for reasonable accommodation.

Supports for Postgraduate Students includes:

- Academic Support
- Assistive Technology
- Occupational Therapy
- Support on Placements and Internships
- Preparation for Viva Voce examinations

An application can be made through my.tcd.ie via the 'My Disability Service' tab. Additional information is available in a step-by-step [How to apply for Reasonable Accommodations guide](#).

Any postgraduate student in Trinity (or prospective student) is welcome to contact the Disability Service to informally discuss their needs prior to making a formal application. Please email askds@tcd.ie or visit the Disability Service [Contact page](#).

<https://www.tcd.ie/disability/contact/>

<https://www.tcd.ie/disability/current/Postgrad.php>