



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

Postgraduate programme in Statistics and Data Science (online) Certificate, Diploma and Master of Science

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Is this the course for me?

- **Year 1 (for a PG Certificate) is an introductory course in statistics;**
- **It continues to a higher technical level in Year 2 (PG Diploma) and Master of Science (Year 3);**
- **It also takes a brief look at some of the non-statistical aspects of data science;**
- **It is a part-time programme;**
- **Reasons that students take this course:**
 - Knowledge of how to use and interpret common statistical techniques is useful in their career;
 - They are a researcher who sees that there will be a need for some statistical analyses in their research but have very little experience of using them;
 - They are considering a career change into data science but have very little experience of statistical methods.

Entrance requirements

- A Bachelor's (first) degree in any subject;
- **Demonstrate some knowledge of high school-level mathematics, either through your degree or a high school qualification:**
 - Although the course tries to keep a low technical level, knowledge of subjects like basic calculus and manipulating matrices will be needed;
 - Leaving Cert / A-level or equivalent in mathematics is sufficient;
 - Having passed an introductory mathematics course in your degree ('Mathematics 101') will also be sufficient.
- **If English is not your first language then you will also have to satisfy TCD's language requirement for postgraduate students.**

Year 1 programme by semester

Semester 1 (Sep – Dec)	Semester 2 (Jan – Apr)
Introduction to Statistical Concepts and Methods (10 credits)	Regression (10 credits)
Implementing statistical methods in R (5 credits)	Foundations of Data Science 1 (5 credits)

- **Currently there are no elective modules;**

Progression to the PG Diploma

- If you successfully pass the PG Certificate then you have the option to continue to Year 2 to work towards a PG Diploma in Statistics and Data Science;
- You can continue straight into Year 2 (in 2025/26) or come back to it within 5 years from completing the PG Cert.

Semester 1 (Sep – Dec)	Semester 2 (Jan – Apr)
Advanced Linear Models 1 (5 credits)	Advanced Linear Models 2 (5 credits)
Foundations of Data Science 2 (5 credits)	Time Series (5 credits)
Experimental Design (5 credits)	Multivariate Analysis (5 credits)

Progression to the Master of Science

- **If you successfully pass the PG Diploma then you have the option to continue to Year 3 in 2026/27 to work towards a Master of Science;**
- **You can continue straight into Year 3 (in 2026/27) or come back to it within 5 years from completing the PG Diploma.**
- **In this year there are no structured taught modules;**
- **You work with a supervisor (member of TCD faculty) on a dissertation that explores some state-of-the-art research in statistics;**
- **This continues to be done entirely online.**

A fully online course

- **There will be no need at all to go to TCD campus for any aspect of the course (classes, labs or any exam);**
- **The main advantages are:**
 - Anyone who cannot make it to our campus each week can still take the course;
 - Greater flexibility in when you study for the course during the week.


How does the online course work?





- **Each week a new set of material will be released to TCD's online teaching website;**
- **You work through this material, which consists of reading tasks, a video lecture, some homework and maybe a short quiz;**
- **Each week there are live sessions with TCD teaching staff where you can ask questions, go through homework, etc.**
- **Your grade for each module is determined through a mixture of homework, projects and/or a take-home examination:**
 - Your overall course grade each year comes from a weighted average of the module marks.



Title page for first week's session


The screenshot displays a learning management system interface. On the left is a blue sidebar with navigation options: '04-TOSL (module placeholder4)', 'Introduction to Statistical Methods', 'ONLINE SESSIONS' (with sub-items for Sessions 1-7), 'MODULE TOOLS' (with sub-items for Announcements, Forum, Blog, Journal, and Collaborate Room), 'INDUCTION' (with 'About your Online Module'), 'PANOPTO' (with 'Panopto'), 'ASSESSMENT', and 'Module Management' / 'Control Panel'. The main content area is titled 'Session 1: Data Summaries and Graphs' and includes a sub-menu with 'Build Content', 'Assessments', 'Tools', and 'Partner Content'. The main content is organized into seven horizontal sections, each with a title and an icon: 'Introduction' (video icon), 'Prepare' (notepad icon), 'Study' (document icon), 'Apply' (compass icon), 'Reflect' (lightbulb icon), 'Recall' (question mark icon), and 'Extend' (document with arrow icon).



The Study element


Study 



Build Content  Assessments  Tools  Partner Content 


Study: Task 1 (Presentation) HTML  

 Click the title above and study the presentation 'Data Summaries and Graphs'.

Study: Task 1 (PDF) HTML  

 Click the title above to access a printable version of the presentation.

Study: Task 1 (Audio Version) HTML  

 To download an audio version of the presentation for offline use, click [here](#)

How to apply

- Applications are through TCD's online course application system at <https://www.tcd.ie/courses/postgraduate/how-to-apply>
- Application deadline is 31st July 2024.

Fees

- **Fees for 2024/25 are:**
 - €3,060 per year for an EU student;
 - €7,160 per year for a non-EU student;
- **Fees may rise from year to year;**
- **Eligibility for the EU fee is based on residency for study or work in the EU and not on citizenship; see <https://www.tcd.ie/academicregistry/fees-and-payments/> for more details.**

Further Information

- The course website contains more information about all aspects of the programme; see

<https://www.tcd.ie/scss/courses/postgraduate/pg-cert-dip--msc-in-statistics-and-data-science-online/>

- Please e-mail the course director at simon.wilson@tcd.ie if you have any other query.



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Thank you

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