



University College Dublin
Ireland's Global University

COURSE CODE:
F084/F057

MSc/Professional Diploma Data Analytics

(3 Years/9 Months Part Time) (Online)

This online course will help you analyse and understand the large data sets that are regularly being created via the huge growth in freely available online information. There is an increasing demand for graduates with these valuable skills in a wide range of industries, and currently a shortage of qualified graduates. There are no lectures to attend as the courses are delivered completely online.

Students will be given videos, online demonstrations, and interactive games to enhance their learning, with regular feedback and interaction with course tutors. This provides flexibility to students who can learn wherever they like at a pace that suits them. Students will attend a UCD exam centre at the end of each trimester for exams.



Course Content and Structure

90 credits taught masters (online) – all taught modules	20 credits professional diploma (online) – all taught modules
This first year of both programmes is designed to introduce you to statistical and mathematical concepts in Data Analytics and Data Mining, and to start you on statistical programming with data. The second year of the MSc is split between understanding the theory behind statistical models for data via predictive analytics, and dealing with data sets at scale using multivariate techniques. The final year of the MSc covers some advanced statistical modelling methods. A provisional list of topics is as follows:	
Statistics modules: <ul style="list-style-type: none"> ■ Machine Learning and AI ■ Predictive Analytics ■ Multivariate Analysis ■ Time Series Analysis ■ Stochastic models ■ Bayesian Analysis ■ Network Analysis 	Computing modules: <ul style="list-style-type: none"> ■ Monte Carlo ■ R ■ C ■ Python ■ SAS
Modules and topics shown are subject to change and are not guaranteed by UCD.	

APPLY NOW This programme receives significant interest so please apply early online at www.ucd.ie/apply

Entry Requirements

- This programme is intended for applicants with a degree in a numerate subject. An upper second class honours or international equivalent is required.
- Those without this requirement, but with equivalent experience in industry, will also be considered on a case-by-case basis, or can apply for the Professional Certificate in Mathematics for Data Analytics and Statistics which leads directly into the Data Analytics programme.
- Applicants whose first language is not English must also demonstrate English language proficiency of IELTS 6.5 (no band less than 6.0 in each element), or equivalent, such as TOEFL (iBT) score of 90 or PTE score of 63.

Career Opportunities

Data Analysts are in strong demand from industry; those who are successful in completing the course are highly employable in fields as diverse as pharmaceuticals, finance and insurance, as well as cloud computing. Some examples of prospective employers include:

- ICT companies (e.g., Google, eBay, Facebook, Amazon, Paddy Power)
- The pharmaceutical industry (e.g., Janssen, Merck, GSK)
- The financial services industry (e.g., Bank of Ireland, AXA, EY, Accenture, Deloitte)

Graduate Profile

Fergal Kelly, Data Analyst in the Central Bank of Ireland

I wanted to re-skill so that I could move to a different role and the content and online aspect of the masters was perfect for me. I wouldn't have been able to commit to going into a university on set nights for 3 years. I also would like to commend all the lecturers and tutors who always responded on time to questions. I've been able to make a contribution to my new team pretty much straight away.