MSc Statistics
(1 Year Full Time)

On completion of the MSc Statistics, you will be able to demonstrate in-depth understanding of statistical concepts, apply basic statistical reasoning, techniques and models in the analysis of real data and employ technical computing skills. This programme is aimed at students who have an undergraduate degree in Statistics or a degree in a discipline related to Statistics and with numerate skills.

Compulsory modules are intended to ensure that all students have appropriate basic statistical skills, knowledge and experience, while optional modules provide depth and exposure to the diverse range of statistical applications and methods. This latter aspect provides you with the opportunity to specialise in specific areas. The major project provides you with the chance to work extensively on either theoretical or practical problems.

Course Content and Structure

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<tr>
<td>taught masters</td>
<td>taught modules</td>
<td>research project/dissertation</td>
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Modules offered change from year to year and the list includes:

- Mathematical Statistics
- Monte Carlo Inference
- Actuarial Statistics
- Survival models
- Data Mining
- Time Series
- Multivariate Analysis
- Statistical Network Analysis
- Data Programming with R
- Bayesian Analysis
- Uncertainty Quantification
- Machine Learning
- Stochastic Models
- Data Programming with Python
- Predictive Analytics I

Modules and topics shown are subject to change and are not guaranteed by UCD.

Career Opportunities

Career opportunities exist in a variety of industries including pharmaceutical companies, banking, finance, government departments, risk management and the IT sector. Some past students embarked on a career in academia by proceeding to study for a PhD. Graduates are currently working for companies such as Google, Western Union, AIB, Norbrook, Ernst & Young, O2, and SPSS. Demand for graduates continues to be strong both in Ireland and abroad.

Entry Requirements

- This programme is intended for applicants who hold a degree in Statistics or a cognate subject area. An upper second class honours or international equivalent is required.
- Those who have been awarded an upper second class honours or higher in the Higher Diploma in Statistics are eligible for the programme.
- Alternatively students may qualify for enrolment for the four trimester MA in Statistics which brings them to the same level as the MSc in Statistics.
- 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. Applicants with an IELTS score of at least 5.5 may apply for admission to the UCD Pre-Masters Pathway programme.

Graduate Profile

Valda Murphy, Project Lead, Novartis

I am glad that I decided to take the MSc in Statistics in UCD. It had a strong theoretical foundation and gave me an education in how to apply statistics. My research project inspired me to go into the area of medical statistics after graduation. The course served as a launch pad for my career in pharmaceutical statistics where I now work as a project lead, overseeing the quantitative aspects of several drugs in development.