

Statistics

CAO code: DN200 Option: Mathematical, Physical & Geological Sciences (MPG)

Sample pathway for a degree in Statistics *

YEAR
1

ENGAGE WITH THE PRINCIPLES

STATISTICS

Topics include:

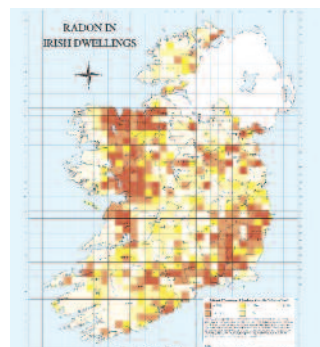
- Applications of Differential Equations
- Statistical Modelling
- Research Methods for Science

MATHEMATICS

Topics include:

- Calculus in the Mathematical and Physical Sciences
- Linear Algebra in the Mathematical and Physical Sciences
- Mathematical Analysis
- Numbers & Functions

- Two Elective modules
- One Small-Group Project



A map of Ireland showing radon in Irish dwellings.

Map by the EPA's Office of Radiological Protection

YEAR
2

CHOOSE YOUR SUBJECTS

STATISTICS

Topics include:

- Probability Theory
- Inferential Statistics
- Linear Models

MATHEMATICS

Topics include:

- Calculus of Several Variables
- Computational Science

- Two Elective modules

- Learn how statistics is used in areas as diverse as biotechnology, finance, marketing, science, medicine and even psychology

YEAR
3

FOCUS ON YOUR CHOSEN SUBJECT

STATISTICS – Topics include:

- Statistical Data Mining
- Survey Sampling
- Linear Algebra 2
- Data Structures & Algorithms

- Time Series
- Survival Models
- Bayesian Analysis
- Design of Experiments

- Two Elective modules

YEAR
4

REFINE YOUR KNOWLEDGE

STATISTICS – Topics include:

- Stochastic Models
- Multivariate Analysis
- Monte Carlo Inference

- Actuarial Statistics
- Applied Statistical Modelling
- Nonparametric Statistics

- Categorical Data Analysis
- Data Programming

BSc (Honours) Statistics

MSc (Taught)

- MSc Statistics
- MSc Actuarial Science
- MSc Meteorology

PhD

- Students can pursue a PhD in universities in Ireland or abroad in areas as diverse as Bayesian Statistics, Pharmaceutical, Medical and Educational Statistics, Epidemiology, Econometrics, Environmental and ecological modelling

Industry

- Data Analytics and Business Analytics
- Data Science
- Pharmaceutical
- Actuarial Science
- Banking & Finance
- Insurance
- CSO

Conversion Courses

- Professional Master of Education (PME)
- Graduate Diploma in Actuarial Science
- MSc Quantitative Finance

*See pages 4 and 5 for information on the terminology used above. Potential combinations shown here are examples only and are not guaranteed by UCD. Topics are subject to change each year.



“ The data analytics I have learned are currently some of the most highly sought after skills by employers, and can be applied to a broad range of areas including finance, insurance, marketing and pharmaceutical companies. If it wasn't for the flexibility of the UCD Science programme I would never have ventured into Statistics, and would have missed out on the chance to enter into the area of Mathematics I now love.
Melanie Dwayne, Student

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