Economics, Mathematics and Statistics

DN700

If you are interested in Mathematics, Statistics and Economics, then this programme enables you to explore these areas in depth while also emphasising how they complement each other. Economists employ mathematics to design theoretical models and use statistics to test these models and to explore the tremendous amount of data that is generated by the economy. In turn, the models and data that are part of the study of Economics provide an interesting source of applications for students that have learned mathematical and statistical skills. You will study Economics, Mathematics and Statistics, providing you with a solid foundation in all three subjects. You will also be given the opportunity to specialise in the latter stages of your degree, for example, in applied economics, advanced statistics, mathematical modelling of complex processes, or developing "Big Data" skills.

Through your study you will develop skills in data analysis, and be supported in the development of your analytical and problem-solving skills, as well as in the application of these skills to understanding real economic issues. The degree will provide a structured approach to developing skills of analysis, problem design and resolution using mathematics, economic theory, data analysis and statistical methods. Assessment is through a combination of end-of-semester written examinations, projects and continuous assessment.

If you do not achieve a H4 or higher in Leaving Certificate Mathematics (or equivalent), then you must complete an introductory Mathematics module in Semester 1 of your first year.

University of New South Wales in Sydney, Australia, is one of many possible study abroad destinations.

Study Abroad

You can apply to study abroad for a semester or a year in partner universities across the globe including:

US	Netherlands
Italy	Belgium
Germany	Australia

Careers with Economics, Mathematics and Statistics

Many students pursue graduate study in Economics, Mathematics or Statistics leading to Masters and PhD degrees. Both the School of Economics and the School of Mathematics and Statistics offer Masters programmes aimed at further developing analytical and professional skills.

Postgraduate qualifications are necessary to work as a professional economist.

Internships

In Year 3, you can apply for an optional internship in a range of sectors in the public and private sectors, for example:

Broadcasting	Finance
Communications	Business
Banking	Journalism

What our Students Say

Combining Economics with Mathematics in my degree has presented a unique opportunity to study a set of subjects that complement each other very well. On one hand, Mathematics and Statistics provide a framework in which economic analysis is regularly conducted and, as such, understanding the mathematical concepts and methods underpinning that analysis can be key to understanding its implications. On the other hand, the study of economic theory provides you with a wealth of relevant economic and social questions to which you may apply some of the more general or abstract techniques that the mathematics subject stream has taught you.

Philip Carthy
UCD Economics and Mathematics Graduate

Contact Us

UCD School of Mathematics and Statistics

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Year 1 — Engage with the Principles

Introduction to Economics	Calculus	Principles of Microeconomics	Practical Statistics
Combinatorics & Number Theory	Principles of Macroeconomics	Statistical Modelling	Linear Algebra 1

Year 2 — Deepen Your Understanding

Intermediate Microeconomics	Probability Theory	Multivariate Calculus	Intermediate Macroeconomics
Introduction to Programming	Linear Algebra 2	Analysis	Linear Models

Many additional specialist options are available in Year 3 and Year 4 and options are reviewed and updated regularly.

Year 3 — Refine Your Knowledge

Econometrics	Advanced Microeconomics	Time Series Analysis	Advanced Macroeconomics	
Differential Equations	Study Abroad Opportunity	Internship Opportunity	Financial Mathematics	Statistical Data Mining

Year 4 — Further Specialisation

Data Programming	Bayesian Analysis	Actuarial Statistics	Complex Analysis
Geometry	Group Theory and Applications	Research Portfolio	Specialist Economics Options

BSc Economics, Mathematics and Statistics

UCD Graduate Study and Career Opportunities

Specialise with UCD

- MSc in Applied Economics
- MA Statistics
- MA Mathematics
- MSc Data and Computational Science
- MSc Data Analytics

- MLitt
- PhD

- Research & Academia

Complementary/Conversion Master's Degrees

- GradDip Actuarial Science
- PME Professional Masters in Education
- MSc Computer Science (Conversion)
- MSc Business Analytics
- MSc Quantitative Finance

Shape your Career

- Economist
- Financial Consultant
- Trainee Accountant
- Trainee Actuary
- Journalist
- Teacher
- Statistician
- Civil Servant