



Mathematics and Statistics A

Module Code: ECU11021 / ECU11023

Module Name: Mathematics and Statistics A

- **ECTS Weighting:** 5
- **Semester/Term Taught:** Semester 1
- **Contact Hours:** 22 hours of lectures and 10 hours of tutorials
- **Lecturers :** Professor Martina Kirchberger and Professor Madina Kurmangaliyeva

Learning Outcomes

Satisfactory completion of this module will contribute to the development of the following key skills:

- Abstraction from concrete problems to generic concepts;
- Problem solving using quantitative methods;
- Explaining quantitative reasoning in clear, concise, and correct English.

Module Learning Aims

In mathematics, as applied to business, economics, and the social sciences, we mainly ask questions like: how can we model and analyse individuals' decisions? How do these change if the environment changes? What happens to economic output if wages change?

Module Content

- Linear and quadratic functions;
- Indices and logarithms;
- Matrices;
- Differentiation;
- Optimisation of functions of one variable;
- Partial differentiation;
- Constrained and unconstrained optimisation of functions of several variables;
- Basic integration.



Trinity College Dublin

Coláiste na Tríonóide, Baile Átha Cliath

The University of Dublin

Recommended Texts

Ian Jacques, *Mathematics for Economics and Business*, 9e, Pearson.

Module Pre Requisite

None.

Assessment Details

- 20% for the midterm test
- 80% for the annual exam

Module Website

Blackboard