



Quantitative Methods

Module Code: ECU44172

Module Name: Quantitative Methods

- **ECTS weighting:** 10
- **Semester/term taught:** Semester 2
- **Contact Hours:** 22 hours of lectures and 4 hours of tutorials
- **Module Personnel:** Lecturer – Professor Paul Scanlon

Module Learning Aims

The objective of the module is to furnish students sufficient quantitative skills to analyse and perform advanced research in economics.

Module Learning Outcomes

- 1. Understand cutting-edge research in economics.
- 2. Replicate and expand existing economic models.
- 3. Develop intuition for mathematical modelling and optimality conditions.

Module Content

- 1. Differential and difference equations
- 2. Dynamic optimization and Economic Applications
- 3. Dynamic Programming
- 4. Stochastic calculus

Recommended Reading List

- Hoy, Michael et al., *Mathematics for Economics*, any edition, MIT Press.

Module Pre Requisites

ECU33081, ECU33082, ECU33091, ECU33092



Assessment Details

A term test will comprise 20% of course grade, while the final will count for the remaining 80%.

Module Website

Blackboard