ECU22032 —MATHEMATICAL AND STATISTICAL METHODS B

Module Information	
Module Code	ECU22032
Module Title	Mathematical and Statistical Methods B
Department	Economics
Year Group	Senior Fresh
Module Personnel	Michael Wycherley
Academic Year	2026-27
Credit Weighting	5
Semester	Semester 2
Contact Hours	2 lectures per week plus tutorials most weeks

Module Content	
Module Description	This module provides a broad, practically oriented introduction to inferential statistics of the kind used across the range of social science disciplines. It builds on the material on descriptive statistics and probability covered in the Introduction to Statistics module students will have taken in the JF year. Topics Covered • Construction of confidence intervals for estimators. • Hypothesis testing. • Analysis of variance. • Simple linear regression
Module Learning Aims	.
Learning Outcomes	Having successfully completed this module, you will be able to: • Explain and apply mathematical and statistical terminology. • Solve problems related to statistical inference, mathematical optimization and applications. • Formulate economic problems in the language and abstractions of mathematics and statistics. Satisfactory completion of this module will contribute to the development of the following key skills:

Module Content	
	• Abstraction from concrete problems to generic concepts. • Problem-solving using quantitative methods. • Ability to perform simple statistical analysis.
Indicative Reading / Resources	Jaggia and Kelly, Business Statistics: Communicating with Numbers, McGraw Hill

Assessment	
Assessment Components	Weekly Problem Sets 10% Mid-term Assignment 20% In person Final Exam 70%
Assessment Details	Late Assignment submissions that have not been agreed in writing beforehand will be penalized 10% per day. Late Problem Sets will not be accepted (students might request excused absences)

Additional Information	
Prerequisites	ECU22031
Co-requisites	None
Any other information	