UK

SYLLABUS 2025-2026

Data Analysis - Quantitative

MODULE SPECIFICATION

Module Code	2526_ECO_2_EN_009
Campus	Oxford
Department(s)	Territorial Economy and Sustainable Development
Level / Semester	Masters Year 1 (M1); Equivalent to FHEQ level 7 Semester 07
Language of Instruction	English
Teaching Method	☒ In-person (face-to-face) ☐ Distance learning (live online) ☐ e-Learning (asynchronous) ☐ Hybrid: _____
Pre-requisite(s)?	None
ECTS *Reminder: 1 ECTS = between 20 and 30hr- student workload*	2
Equivalent FHEQ credits	4
Study Hours	50 hours which comprise of 14 directed learning and 36 independent learning/assessment hours

MODULE DESCRIPTION

Module Aims	This module aims to equip students with the practical skills to leverage quantitative techniques for strategic decision-making. The focus is on the critical application and interpretation of these methods to solve real-world business problems and make informed, evidence-based judgments. Students will learn to move beyond the mathematical theory, gaining the ability to select the most appropriate quantitative approach for a given organisational context and critically evaluate its findings.

Teaching Arrangement	The module will be delivered through lectures with frequent interactions with students, including regular debates.
Learning Outcomes	By the end of this module, students should be able to: 1. Systematically evaluate and select the most appropriate quantitative techniques to address complex, unstructured problems within a given organisational context. 2. Practically implement the selected quantitative methods using a data analysis software, ensuring the integrity and validity of the process. 3. Critically interpret and synthesise complex statistical outputs, moving beyond surface-level results to identify underlying patterns and causal relationships. 4. Formulate and defend evidence-based conclusions and strategic recommendations, translating analytical findings into actionable business insights.
Competency Goals* *(Knowledge, expertise and interpersonal skills)*	PGE_M_ CG01 - To be equipped with efficient business skills
Alignment with Programme Learning Goals*	PGE_M_CG01_LO05 - To identify the appropriate methodology to solve a problem
	PGE_M_CG01_LO05_I02 - To select the appropriate methodological approach and data processing

SESSION TOPICS / MODULE SCHEDULE

(Please note, a session/sequence may be more than one scheduled class)

Session 1: Univariate Descriptive Analysis

Content:

- Identify the nature of variables
- Select appropriate statistical tests based on their type
- Practice analysing and interpreting results

Assignments:

- Software manipulation (Jamovi) and output interpretation

Session 2: Relationship Between Two Variables

Content:

- Exploring the case of qualitative and quantitative variables
- Identifying appropriate statistical tests based on variable types
- Practicing result analysis and interpretation

Assignments:

- Software manipulation (Jamovi) and output interpretation

Session 3: Mean Comparison Between Two Groups and ANOVA

Content:

- Overview of mean comparison between two groups and ANOVA

Assignments:

- Software manipulation (Jamovi) and output interpretation

Session 4: Simple and Multiple Regression

Content:

- Overview of simple and multiple regression

Assignments:

- Software manipulation (Jamovi) and output interpretation

KEY TEXTS

1. Navarro, D.J. and Foxcroft, D. (2025) *Learning statistics with jamovi: A tutorial for beginners in statistical analysis*. Cambridge, United Kingdom: Open Book Publishers.

SUPPLEMENTARY TEXTS

1. Rafi, J. and Jentschke, S. (2020) *Overview*, *jamovi*. Available at: https://docs.jamovi.org/_pages/jg_00_analyses-overview.html.
2. Sánchez, C. (2023) *Descriptive and inferential statistics with JAMOVI*. Lambert Academic Publishing.

MODES OF ASSESSMENT

Continuous Assessment (40%)	Case study
Final Exam (60%)	Closed book written exam

MODULE DESIGN TEAM

- Author: *Samy Belaid/Thanh Tam Nguyen Huu*
- Reviewer: *Ambrose Egwuonwu*
- External Reviewer: *TBA*

Last reviewed: 11/09/2025