COURSE DETAILS

Course Code: F78QT
Full Course Title: Quantitative Methods 1
SCQF Level: 8
SCAF Credits: 15
Available as Elective: Yes

DELIVERY LEVEL

Undergraduate: Yes  Postgraduate Taught: No  Postgraduate Research: No

COURSE AIMS

To provide students with: an introduction to the use of descriptive statistics in economics and financial contexts; a range of quantitative methods that have immediate application in economics and financial settings; the use of Excel as a tool in the problem solving process; and the development of statistical problem solving skills.

LEARNING OUTCOMES – SUBJECT MASTERY

- Understanding the nature of statistics and their value in economics and finance.
- Ability to describe the characteristics of data, including the differences in nature between qualitative and quantitative data.
- Understanding of the nature of a probability distribution and the characteristics of data generated by different types of process.
- Construct, calculate and interpret confidence intervals for parameters of interest in one or two population.
- Understanding and interpreting the concepts of null hypothesis, alternative hypothesis and critical region.
- Perform hypothesis tests for situations involving one or two samples.
- Perform chi-squared goodness-of-fit tests in appropriate situations.

LEARNING OUTCOMES – PERSONAL ABILITIES

- Awareness of the scope of quantitative analysis in economics and finance.
- Understanding of the nature of professional practice relating to the analysis and use of quantitative and qualitative data in accountancy and finance.
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- Ability to use standard PC-based programs to analyse a range of standard statistical problems
- Ability to draw conclusions from analysis and report these in a form that is immediately understandable by other users of data

SYLLABUS

The nature of statistics; frequency distributions and graphical analysis; measures of central tendency and dispersion; probability; discrete and continuous probability distributions; models for count data and measurement; the central limit theorem; confidence intervals with samples from one or two populations; hypothesis testing including test statistics for typical situations involving one or two samples; association between two variables; correlation, contingency tables and chi-square test for association; index numbers; linear programming.

COURSE RELATIONSHIPS

N/A

LOCATION AND ASSESSMENT METHODS

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