

Module code	SB	NQF level	7
Credit value	20	Study duration	12 weeks

# Statistics for Business

## Module description

This module introduces key aspects of statistics for business, and some of its main applications in contemporary management and decision making. The central consideration of this module is the need to be aware of, and be able to critically evaluate, the range of statistical methodology and to build a foundation for analysing and solving business problems from a quantitative perspective. This module also provides a foundation for the study of optional modules in data analytics.

## This module aims to:

- Provide students with sufficient background understanding of statistical analysis techniques and their role in the business decision-making process
- Enable students to understand selected statistical analysis techniques, their application in organisations and governments, and contemporary issues related to these techniques
- Support and encourage education and learning, and to foster the capacity for individual study; and facilitate development of critical and analytical thinking for further academic study, employment and personal development

## Learning outcomes

On completion of this module, students will be able to:

- explain and evaluate the various types and sources of data
- apply statistical measures including measures of location, variability and probability
- apply various sampling methods, including interval estimation
- explain how the null and alternative hypotheses are developed, describe and apply simple linear and multiple regression analysis and understand the purpose of forecasting and apply the use of time-series analysis
- critically evaluate the use of statistical methods and explain how risk is introduced to the decision making process

## Syllabus

- Types and sources of data
- Methods of statistical measurement
- Introduction to probabilities
- Discrete probabilities
- Continuous probabilities
- Sampling methods
- Interval estimation
- Hypothesis testing
- Simple linear regression analysis
- Multiple regression
- Time-series analysis
- Decision making and risk



## **Learning and teaching methods**

This module will be delivered by learning materials provided on the learning platform supplemented by readings. Tutor support will be available to students via phone, email, and a fortnightly question and answer (Q&A) session.

Description of unit of assessment	Length/Duration	Submission date	Weighting
Live presentation and individual report	Equivalent to 2,500 words	Mid module	50%
Written report	2,500 words	End of Unit 12	50%