

# MATH 7003 APPLIED BUSINESS STATISTICS

**Credit Points** 10

**Legacy Code** 300962

**Coordinator** Kenan Matawie ([https://directory.westernsydney.edu.au/search/name/Kenan Matawie/](https://directory.westernsydney.edu.au/search/name/Kenan%20Matawie/))

**Description** This subject introduces the basic statistical concepts and techniques for descriptive and inferential data analysis. It will aid and improve business decision-making, especially when faced with uncertain outcomes.

**School** Computer, Data & Math Sciences

**Discipline** Statistics

**Student Contribution Band** HECS Band 1 10cp

**Level** Postgraduate Coursework Level 7 subject

## Restrictions

Students must be enrolled in a postgraduate program.

## Assumed Knowledge

Mathematics to the HSC level.

## Learning Outcomes

On successful completion of this subject, students should be able to:

1. Organise, tabulate, present, summarise and graph data appropriately;
2. Apply probability to solve business decision making problems;
3. Define and distinguish between discrete and continuous probability distributions;
4. Estimate population means and proportions using confidence intervals;
5. Test hypotheses about population means and proportions;
6. Understand and apply correlation and linear regression to describe and analyse relationships between variables;
7. Use the Chi-square test for goodness of fit and test for independence to analyse categorical type data;
8. Use the necessary computing skills required in Excel to solve and analyse statistical data.

## Subject Content

Data type and collection, graphical and tabular techniques

Numerical descriptive measures, and basic Probability

Discrete and continuous probability distributions

Sampling distribution

Statistical inferences - hypothesis testing

Correlation and Linear regression analysis

Statistical inferences -estimation

Analysis of Categorical data

Index Numbers

## Assessment

The following table summarises the standard assessment tasks for this subject. Please note this is a guide only. Assessment tasks are

regularly updated, where there is a difference your Learning Guide takes precedence.

Type	Length	Percent	Threshold	Individual/Group Task
Quiz	50 minutes	15	N	Individual
Quiz	50 minutes	15	N	Individual
Practical	One week	20	N	Individual
Final Exam	2 hours	50	N	Individual

## Prescribed Texts

- Selvanathan, E. A. a. (2013). Business statistics: Australia and New Zealand (6th ed.). South Melbourne, Vic.: Cengage Learning.

## Teaching Periods

### Quarter 2 (2022)

#### Parramatta City - Macquarie St

#### Evening

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View timetable ([https://classregistration.westernsydney.edu.au/even/timetable/?subject\\_code=MATH7003\\_22-Q2\\_PC\\_E#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=MATH7003_22-Q2_PC_E#subjects))

### Quarter 4 (2022)

#### Parramatta City - Macquarie St

#### Evening

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### Quarter 2 (2023)

#### Parramatta City - Macquarie St

#### On-site

**Subject Contact** Kenan Matawie ([https://directory.westernsydney.edu.au/search/name/Kenan Matawie/](https://directory.westernsydney.edu.au/search/name/Kenan%20Matawie/))

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### Quarter 4 (2023)

#### Parramatta City - Macquarie St

#### On-site

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