

# MATH 1012 MANAGEMENT ANALYTICS

**Credit Points** 10

**Legacy Code** 301123

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

**Description** Management Analytics provides students with introductory knowledge and skills in identifying, analysing and interpreting data relevant to Business, Human Resources and Management. In order to develop evidence-based decision-making skills, students will learn how to work with data. Students will organise and summarise data, present data visually and design surveys for new data collection and use. Students will develop skills in understanding decision-making models and forecasting as a means of improving business processes and HR, management and business metrics.

**School** Computer, Data & Math Sciences

**Discipline** Statistics

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

Check your HECS Band contribution amount via the Fees ([https://www.westernsydney.edu.au/currentstudents/current\\_students/fees/](https://www.westernsydney.edu.au/currentstudents/current_students/fees/)) page.

**Level** Undergraduate Level 1 subject

**Equivalent Subjects** MATH 1030 Statistics for Business ECON 1006 Introduction to Economic Methods MATH 1028 Statistical Decision Making MATH 1003 Biometry MATH 1032 Statistics for Science MATH 1031 Statistics for Business (WSTC) MATH 1029 Statistical Decision Making (WSTC)

**Assumed Knowledge**

HSC maths (2 unit desirable) or equivalent.

## Learning Outcomes

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

1. Recognise the importance of communicating with data in Business, Management and Human Resource contexts
2. Demonstrate knowledge of evidence-based decision-making techniques in business, human resources and management
3. Organise and summarise numerical data
4. Manipulate, analyse and graph data using Excel
5. Employ appropriate statistical methods and techniques in given situations.
6. Understand the basics of forecasting in Business, Human Resource and Management contexts.
7. Design survey tools for data collection and analysis.

## Subject Content

1. Foundations of management analytics
  - data presentation
  - Analytics on spreadsheets
  - collecting data - survey design
2. Descriptive analytics
  - Descriptive statistical measures
  - probability distributions
3. Predictive analytics

- estimation and Hypothesis testing
  - survey analysis
  - simple linear regression analysis
4. Making decisions and decision analysis

## 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.

Item	Length	Percent	Threshold	Individual/Group Task
Multiple Choice	60 minutes	15	N	Individual
Short Answer	Work takes groups up to 4 hours to complete, plus tutorial presentation.	20	N	Group
Short Answer	60 minutes	25	N	Group
End-of-session Exam	2 hours	40	Y	Individual

Prescribed Texts

Selvanathan, E. A., Selvanathan, S., & Keller, G. (2017). Business statistics : Australia and New Zealand (7th ed.). South Melbourne, Victoria: Cengage Learning.

Teaching Periods

## Autumn

### Parramatta City - Macquarie St

**Day**

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

View timetable ([https://classregistration.westernsydney.edu.au/even/timetable/?subject\\_code=MATH1012\\_22-AUT\\_PC\\_D#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=MATH1012_22-AUT_PC_D#subjects))

## WSU Online TRI-2

### Wsu Online

**Online**

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

View timetable ([https://classregistration.westernsydney.edu.au/even/timetable/?subject\\_code=MATH1012\\_22-OT2\\_OW\\_O#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=MATH1012_22-OT2_OW_O#subjects))

## Spring

### Bankstown

**Day**

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

View timetable ([https://classregistration.westernsydney.edu.au/even/timetable/?subject\\_code=MATH1012\\_22-SPR\\_BA\\_D#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=MATH1012_22-SPR_BA_D#subjects))

## **Campbelltown**

### **Day**

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

View timetable ([https://classregistration.westernsydney.edu.au/even/timetable/?subject\\_code=MATH1012\\_22-SPR\\_CA\\_D#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=MATH1012_22-SPR_CA_D#subjects))

## **Parramatta City - Macquarie St**

### **Day**

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

View timetable ([https://classregistration.westernsydney.edu.au/even/timetable/?subject\\_code=MATH1012\\_22-SPR\\_PC\\_D#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=MATH1012_22-SPR_PC_D#subjects))

## **Sydney City Campus - Term 3**

### **Sydney City**

#### **Day**

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

View timetable ([https://classregistration.westernsydney.edu.au/even/timetable/?subject\\_code=MATH1012\\_22-SC3\\_SC\\_D#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=MATH1012_22-SC3_SC_D#subjects))