

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 fees via the 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.

Type	Length	Percent	Threshold	Individual/ Group Task
Multiple Choice	60 minutes	15	N	Individual
Short Answer	3 hours	20	N	Individual
Short Answer	1.5 hours (Over 5 weeks each 30 minutes)	25	N	Group
Final Exam	2 hours	40	Y	Individual

WSU Online

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	20 Mins and 60 Mins	20	N	Individual
Practical	NA	20	N	Individual
Practical	NA	20	N	Individual
Final Exam	NA	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 (2024)

Parramatta City - Macquarie St

On-site

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View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=MATH1012_24-AUT_PC_1#subjects)

WSU Online TRI-2 (2024)

Wsu Online

Online

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View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=MATH1012_24-OT2_OW_2#subjects)

Spring (2024)

Bankstown City

On-site

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_24-SPR_BK_1#subjects)

Campbelltown

On-site

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_24-SPR_CA_1#subjects)

Parramatta City - Macquarie St

On-site

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_24-SPR_PC_1#subjects)

Sydney City Campus - Term 3 (2024)

Sydney City

On-site

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View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=MATH1012_24-SC3_SC_1#subjects)