MATH 1028 STATISTICAL DECISION MAKING

Credit Points 10

Legacy Code 300700

Coordinator Volker Gebhardt (https://directory.westernsydney.edu.au/search/name/Volker Gebhardt/)

Description Statistical Decision Making introduces students to various statistical techniques for analysing and interpreting data. Presentation of the content will emphasise the correct principles and procedures for collecting and analysing data, using statistical software. Topics include describing different sets of data, probability distributions, statistical inference, and simple linear regression and correlation. The open-source statistical software package R will be introduced and used in this subject. Analysing and interpreting data is crucial in many sectors of modern economy and society. Thus, basic competencies in statistics, data collection and data analysis are essential employability skills in virtually every profession.

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 1003
COMP 1014
MATH 1033

Incompatible Subjects MATH 1025
MATH 1032
MATH 1030
ECON 1006
MATH 1012

Learning Outcomes

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

1. Analyse data using traditional methods or modern resampling methods
2. Use technology to assist in performing statistical analysis
3. Recognise the limitations of data collection methods and demonstrate awareness of the influence of these limitations on inference
4. Choose the correct statistical method for analysis and correctly interpret the results

Subject Content

1. Collecting and describing data
2. Probability
3. Confidence intervals and hypothesis tests
4. Simple linear regression

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	Mandatory
Short Answer	50 minutes	11	Y	Individual	Y
Short Answer	15 minutes (per workshop exercise)	24	N	Individual	Y
Report	15 hours per student	15	N	Group	Y
Final Exam	2 hours	50	Y	Individual	Y

Prescribed Texts

- N/A

Teaching Periods

Surabaya Semester 2 (2025)

Surabaya

On-site

Subject Contact Volker Gebhardt (https://directory.westernsydney.edu.au/search/name/Volker Gebhardt/)

View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=MATH1028_25-IS2_SU_1#subjects)

Autumn (2025)

Campbelltown

Hybrid

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View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=MATH1028_25-AUT_CA_3#subjects)

Penrith (Kingswood)

Hybrid

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View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=MATH1028_25-AUT_KW_3#subjects)

Parramatta - Victoria Rd

Hybrid

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View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=MATH1028_25-AUT_PS_3#subjects)

Surabaya Semester 1 (2025)

Surabaya

On-site

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View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=MATH1028_25-IS1_SU_1#subjects)