

MATH 1028 STATISTICAL DECISION MAKING

Credit Points 10

Legacy Code 300700

Coordinator Volker Gebhardt ([https://directory.westernsydney.edu.au/search/name/Volker Gebhardt/](https://directory.westernsydney.edu.au/search/name/Volker%20Gebhardt/))

Description Statistical Decision Making introduces students to various statistical techniques supporting the study of computing and science. Presentation of the content will emphasize the correct principles and procedures for collecting and analysing scientific data, using information and communication technologies. Topics include describing different sets of data, probability distributions, statistical inference, and simple linear regression and correlation.

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/) page.

Level Undergraduate Level 1 subject

Equivalent Subjects MATH 1032 Statistics for Science MATH 1003 Biometry MATH 1030 Statistics for Business ECON 1006 Introduction to Economic Methods MATH 1012 Management Analytics MATH 1031 Statistics for Business (WSTC) MATH 1004 Biometry (WSTC) MATH 1029 Statistical Decision Making (WSTC)

Incompatible Subjects MATH 1025 Quantitative Techniques

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
5. Analyse data using traditional methods or modern resampling methods
6. Recognise the limitations in data collection methods and have awareness in the role of data collection on inference

Subject Content

Collecting and describing data

Probability

Confidence intervals and hypothesis tests

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.

| Item | Length | Percent | Threshold | Individual/Group Task |
|-----------------|-----------------|---------|-----------|-----------------------|
| Multiple Choice | 50 minutes | 11 | Y | Individual |
| Short Answer | 15 minutes each | 24 | N | Individual |
| Report | 15 hours each | 15 | N | Individual |
| Final Exam | 2 hours | 50 | Y | Individual |

Prescribed Texts

- Lock, R. H., Lock, P. F., Morgan, K. L., Lock, E. F., & Lock, D. F. (Eds.). (2013). Statistics : unlocking the power of data. Hoboken, N.J.: Wiley.

Teaching Periods

Autumn Campbelltown

Day

Subject Contact Volker Gebhardt ([https://directory.westernsydney.edu.au/search/name/Volker Gebhardt/](https://directory.westernsydney.edu.au/search/name/Volker%20Gebhardt/))

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=MATH1028_22-AUT_CA_D#subjects)

Penrith (Kingswood)

Day

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View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=MATH1028_22-AUT_KW_D#subjects)

Parramatta - Victoria Rd

Day

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