MATH 1029 STATISTICAL DECISION MAKING (WSTC)

Credit Points 10

Legacy Code 700041

Coordinator Frank Gutierrez (https://directory.westernsydney.edu.au/search/name/Frank Gutierrez/)

Description Statistical Decision Making introduces students to various statistical techniques supporting the study of computing and science. Presentation of the content will emphasise 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 fees via the Fees (https://www.westernsydney.edu.au/currentstudents/current_students/fees/) page.

Level Undergraduate Level 1 subject

Pre-requisite(s) Students enrolled in 7005 Diploma in Information and Communications Technology 7067 Diploma in Information and Communications Technology Extended 7104 Diploma in Information and Communications Technology (Health Information Management) 7106 Diploma in Information and Communications Technology (Health Information Management) Extended must pass MATH 0028 Statistics for Academic Purposes (WSTC Prep) before enrolling in this unit

Equivalent Subjects MATH 1032 - Statistics for Science MATH 1003 - Statistics for Business ECON 1006 - Introduction to Economic Methods MATH 1028 - Statistical Decision Making MATH 1031 - Statistics for Business (WSTC) MATH 1004 - Biometry (WSTC)

Incompatible Subjects MATH 1025 - Quantitative Techniques

Restrictions Students must be enrolled at Western Sydney University, The College. Students enrolled in Extended Diploma programs (7067, 7083, 7106, 7107) must have passed 40 credit points in order to enrol in this subject. Students enrolled in the combined Diploma/Bachelor programs listed below must pass all College Preparatory subjects listed in the program structure before progressing to the Year 2 subjects.

Learning Outcomes

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. Aanalyse 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.

Type	Length	Percent	Threshold	Individual/ Group Task	Mandatory
Quiz	30 minutes	5	N	Individual	N
Intra-session Exam	1 hour	15	N	Individual	N
Intra-session Exam	1 hour	20	N	Individual	N
Applied Project	5 hours	10	N	Group	N
End-of-session Exam	2 hours	50	Y	Individual	Y

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

Term 1 (2025)

Nirimba Education Precinct

On-site

Subject Contact Michael Casey (https://directory.westernsydney.edu.au/search/name/Michael Casey/)

View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=MATH1029_25-T1_BL_1#subjects)

Term 3 (2025)

Penrith (Kingswood)

On-site

Subject Contact Frank Gutierrez (https://directory.westernsydney.edu.au/search/name/Frank Gutierrez/)

View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=MATH1029_25-T3_KW_1#subjects)