

DATA SCIENCE, TESTAMUR MAJOR (T079)

Western Sydney University Major Code: T079

Previous Code: MT3038.1

Available to students in other Western Sydney University programs?
No

Data is ubiquitous, and analysing data plays an increasingly important role in many careers. Data Science is based on mathematics and statistics, but there is more to it: a Data Scientist has the required expertise to convert all forms of data into valuable information. Building on the Bachelor of Mathematics, this major equips graduates with additional skills and knowledge for designing experimental studies, building and fitting of models, visualisation, estimation and prediction, storage and retrieval of big data. Such skills are essential for tasks such as the analysis of customer transactions and behaviour, scientific investigations, financial trends, and online behaviour.

Location

Campus	Mode	Advice
Campbelltown Campus	Internal	Associate Professor Volker Gebhardt (https://directory.westernsydney.edu.au/search/email/v.gebhardt@westernsydney.edu.au)
Parramatta Campus - Victoria Road	Internal	Associate Professor Volker Gebhardt (https://directory.westernsydney.edu.au/search/email/v.gebhardt@westernsydney.edu.au)
Penrith Campus	Internal	Associate Professor Volker Gebhardt (https://directory.westernsydney.edu.au/search/email/v.gebhardt@westernsydney.edu.au)

Recommended Sequence 2022 - 2024

Students must successfully complete 80 credit points as per the recommended sequences below.

Full-time start-year intake

Course	Title	Credit Points
Year 1		
Spring session		
COMP 2014	Object Oriented Programming	10
COMP 2025	Introduction to Data Science	10
Credit Points		20
Year 2		
Autumn session		
COMP 1013	Analytics Programming	10
Credit Points		10
Spring session		
COMP 3032	Machine Learning	10
Credit Points		10

Year 3

Autumn session

COMP 2026	Visual Analytics	10
MATH 3011	Probabilistic Models and Inference	10
Credit Points		20

Spring session

MATH 3005	Environmental Informatics	10
COMP 3020	Social Web Analytics	10
Credit Points		20
Total Credit Points		80

Part-time start-year intake

Course	Title	Credit Points
Year 1		
Spring session		
COMP 2014	Object Oriented Programming	10
Credit Points		10
Year 2		
Spring session		
COMP 2025	Introduction to Data Science	10
Credit Points		10
Year 4		
Autumn session		
COMP 1013	Analytics Programming	10
Credit Points		10
Spring session		
COMP 3032	Machine Learning	10
Credit Points		10
Year 5		
Autumn session		
COMP 2026	Visual Analytics	10
Credit Points		10
Spring session		
COMP 3020	Social Web Analytics	10
Credit Points		10
Year 6		
Autumn session		
MATH 3011	Probabilistic Models and Inference	10
Credit Points		10
Spring session		
MATH 3005	Environmental Informatics	10
Credit Points		10
Total Credit Points		80

Recommended Sequence 2022 - 2024

Students must successfully complete 80 credit points as per the recommended sequences below.

Full-time start-year intake

Course	Title	Credit Points
Year 1		
Spring session		
MATH 2011	Making Sense of Data	10

COMP 2025	Introduction to Data Science	10
Credit Points		20
Year 2		
Autumn session		
COMP 1013	Analytics Programming	10
Credit Points		10
Spring session		
COMP 2014	Object Oriented Programming	10
Credit Points		10
Year 3		
Autumn session		
COMP 2026	Visual Analytics	10
MATH 3011	Probabilistic Models and Inference	10
Credit Points		20
Spring session		
MATH 3005	Environmental Informatics	10
COMP 3020	Social Web Analytics	10
Credit Points		20
Total Credit Points		80

Equivalent Subjects

The subjects listed below count towards completion of this program for students who passed these subjects in 2021 or earlier.

MATH 2009 Introduction to Data Science, replaced by COMP 2025 Introduction to Data Science

MATH 1002 Analytics Programming, replaced by COMP 1013 Analytics Programming

MATH 2014 Visual Analytics, replaced by COMP 2026 Visual Analytics

Part-time start-year intake

Course	Title	Credit Points
Year 1		
Spring session		
MATH 2011	Making Sense of Data	10
Credit Points		10
Year 2		
Spring session		
COMP 2025	Introduction to Data Science	10
Credit Points		10
Year 4		
Autumn session		
COMP 1013	Analytics Programming	10
Credit Points		10
Spring session		
COMP 2014	Object Oriented Programming	10
Credit Points		10
Year 5		
Autumn session		
COMP 2026	Visual Analytics	10
Credit Points		10
Spring session		
COMP 3020	Social Web Analytics	10
Credit Points		10

Year 6

Autumn session		
MATH 3011	Probabilistic Models and Inference	10
Credit Points		10
Spring session		
MATH 3005	Environmental Informatics	10
Credit Points		10
Total Credit Points		80

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MATH 2014 Visual Analytics, replaced by COMP 2026 Visual Analytics

Related Programs

Bachelor of Mathematics (3778) (<https://hbook.westernsydney.edu.au/archives/2024-2025/programs/bachelor-mathematics/>)