Science

Bachelor of Data Science and Decisions (3959) - Handbook

2022 Commencing Students
Program Structure

Single Degree Mode

PROGRAM STRUCTURE	**Data Science and Decisions courses**	**120 UOC (20 courses)**	**120 UOC**	**144 UOC**
	Free Electives	**12 UOC (2 courses)**	**36 UOC**	
	General Education	**12 UOC (2 courses)**		

Science Electives are courses taken from within the Faculty of Science or as defined here

Free Electives are courses from any Faculty at UNSW including Science, but cannot be GEN-branded courses

General Education These courses cannot be Science, Engineering or Business courses. They must taken from courses that are not considered Science Electives. Science students cannot take GENS courses under any circumstance

Students in Single Degree Mode cannot complete more than 72 UoC of Level 1 courses including any GEN courses and Level 1 courses taken for General Education.

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Bachelor of Data Science and Decisions (3959)

2022 Commencing Students

Click on the page number below to navigate to the approved Major sequence

Approved Major	Page
Business Data Science	3
Computational Data Science	4
Quantitative Data Science	5

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Science

Bachelor of Data Science and Decisions (3959)

2022 Commencing Students – Single Degree – Major in Business Data Science (ECONL1)

Choose from available proposed courses in each year

Year 1		
COMP1511 Programming Fundamentals (T1, T2, T3)	ECON1101 Microeconomics1 (T1, T2, T3, Summer)	COMP2521 Data Structures and Algorithms (T1, T2, T3)
MATH1131 (T1, T2, T3) or MATH1141 (T1, T3)	DATA1001 Introduction to Data Science and Decisions (T2)	MATH1231 (T1, T2, T3) or MATH1241 (T1, T2)
6 UOC Free Elective	6 UOC General Education	

Year 2		
ECON2112 Game Theory and Business Strategy (T1)	MATH2501 (T2) OR MATH2601 (T2)	ECON2206 (T1, T3) OR MATH2831 (T3)
ECON2209 Business Forecasting (T1)	MATH2801 (T2) OR MATH2901 (T2)	6 UOC Prescribed Elective (See Note 1)
6 UOC Free Elective	6 UOC General Education	

Year 3		
COMP3311 Database Systems (T1, T3)	6 UOC Prescribed Elective (See Note 1)	DATA3001 Data Science and Decisions in Practice (T3)
ECON3208 (T1, T3) OR ECON3210 (T2)	6 UOC Prescribed Elective (See Note 1)	ECON3203 Econometric Theory and Methods (T3)
6 UOC Prescribed Elective (See Note 1)	6 UOC Prescribed Elective (See Note 1)	

NOTES

This is intended as a guide only. Courses do not need to be studied in the exact structure that they appear here.

See Program Structure on page 1 for a guide on the terminology and colour codes used in this progression plan.

Note 1: Prescribed Electives: ACTL3141, ACTL3142, COMP2041, COMP9313, COMP9417, ECON1102, ECON2101, ECON2111, ECON3107, ECON3206, INFS3603, MARK1012, MARK3054, MARK3085, MATH1081, MATH2011, MATH2871, MATH3871, ECON3208, ECON3210

- **At least three elective courses must be at level 3 or above (3XXX). Additionally, at least 3 of the electives must be selected from Business School subject areas ACTL, ECON, INFS, MARK and MGMT. A Level 3 Business course will fulfill both of these requirements.**

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Science

Bachelor of Data Science and Decisions (3959)

2022 Commencing Students – Single Degree – Major in Computational Data Science (COMPZ1)

Choose from available proposed courses in each year

Year 1		
COMP1511 Programming Fundamentals (T1, T2, T3)	ECON1101 Microeconomics 1 (T1, T2, T3, Summer)	COMP2521 Data Structures and Algorithms (T1, T2, T3)
MATH1131 (T1, T2, T3) or MATH1141 (T1, T3)	DATA1001 Introduction to Data Science and Decisions (T2)	MATH1231 (T1, T2, T3) or MATH1241 (T1, T2)
MATH1081 Discrete Mathematics (T1, T2, T3)	6 UOC Free Elective	

Year 2		
ECON2112 Game Theory and Business Strategy (T1)	MATH2501 (T2) OR MATH2601 (T2)	COMP3121 Algorithms and Programming Techniques (T1, T2, T3)
6 UOC Prescribed Elective (See Note 1)	MATH2801 (T2) OR MATH2901 (T2)	6 UOC Prescribed Elective (See Note 1)
6 UOC General Education	COMP2041 Software Construction: Techniques and Tools (T2)	

Year 3		
COMP3311 Database Systems (T1, T3)	COMP9313 Big Data Management (T2, T3)	DATA3001 Data Science and Decisions in Practice (T3)
COMP9417 Machine Learning and Data Mining (T1, T2)	6 UOC Prescribed Elective (See Note 1)	ECON3203 Econometric Theory and Methods (T3)
6 UOC Free Elective	6 UOC General Education	

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See Program Structure on page 1 for a guide on the terminology and colour codes used in this progression plan.

Note 1: Prescribed Electives: See the Computational Data Science Handbook page for the full list of prescribed elective options.

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Science

Bachelor of Data Science and Decisions (3959)

2022 Commencing Students – Single Degree – Major in Quantatitive Data Science (MATHE1)

Choose from available proposed courses in each year

Year 1		
COMP1511 Programming Fundamentals (T1, T2, T3)	ECON1101 Microeconomics 1 (T1, T2, T3, Summer)	COMP2521 Data Structures and Algorithms (T1, T2, T3)
MATH1131 (T1, T2, T3) or MATH1141 (T1, T3)	DATA1001 Introduction to Data Science and Decisions (T2)	MATH1231 (T1, T2, T3) or MATH1241 (T1, T2)
6 UOC Free Elective	6 UOC General Education	

Year 2		
ECON2112 Game Theory and Business Strategy (T1)	MATH2501 (T2) OR MATH2601 (T2)	MATH2831 Linear Models (T3)
MATH2871 Data Management for Statistical Analysis (T1)	MATH2801 (T2) OR MATH2901 (T2)	6 UOC Prescribed Elective (See Note 1)
6 UOC Free Elective	6 UOC Prescribed Elective (See Note 1)	

Year 3		
COMP3311 Database Systems (T1, T3)	MATH3821 Statistical Modelling and Computing (T2)	DATA3001 Data Science and Decisions in Practice (T3)
6 UOC Prescribed Elective (See Note 1)	6 UOC Prescribed Elective (See Note 1)	ECON3203 Econometric Theory and Methods (T3)
6 UOC General Education		MATH3871 Bayesian Inference and Computation (T3)

NOTES

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See Program Structure on page 1 for a guide on the terminology and colour codes used in this progression plan.

Note 1: Prescribed Electives: See the Quantatitive Data Science Handbook page for the full list of prescribed elective options.

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