

MASTER OF DATA SCIENCE (C6004)

– 2019 COURSE MAP –

1. Students must complete four foundation units (24 points) from the list below

FOUNDATION UNITS

<input type="checkbox"/>	FIT9133 Programming foundations in Python (S1, S2)	<input type="checkbox"/>	FIT9132 Introduction to databases (S1, S2)
<input type="checkbox"/>	FIT9123 Introduction to business information systems (S1, S2) OR FIT9134 Computer architecture and operating systems (S1, S2)	<input type="checkbox"/>	MAT9004 Mathematical foundations for data science (S1, S2)

2. Students must complete 3 core units (18 points) from the list below:

CORE UNITS

<input type="checkbox"/>	FIT5145 Introduction to data science (S1, S2)	<input type="checkbox"/>	FIT5196 Data wrangling (S1, S2)
<input type="checkbox"/>	FIT5197 Modelling for data analysis (S1, S2)		

3. Students must complete

- 4 four units (24 points) from either the Advanced Data Analytics Stream or the Data Science Stream, plus
- One unit (6 points) from the Advanced Data Analytics or Data Science streams, or from the approved Data Science elective list (below), or any FIT-coded level 5 units, or any level 5 units offered by any other faculty of the University.

ADVANCED DATA ANALYTICS STREAM

<input type="checkbox"/>	FIT5147 Data exploration and visualisation (S1)	<input type="checkbox"/>	FIT5201 Data analysis algorithms (S1, S2)
<input type="checkbox"/>	FIT5149 Applied data analysis (S1, S2)	<input type="checkbox"/>	FIT5148 Big data management and processing (S1) OR FIT5202 Data processing for big data (S2)

OR

DATA SCIENCE STREAM

<input type="checkbox"/>	FIT5097 Business intelligence modelling (S2)	<input type="checkbox"/>	FIT5146 Data curation and management (S2)
<input type="checkbox"/>	FIT5147 Data exploration and visualisation (S1)	<input type="checkbox"/>	FIT5148 Big data management and processing (S1)
<input type="checkbox"/>	FIT5149 Applied data analysis (S1, S2)	<input type="checkbox"/>	FIT5195 Business intelligence and data warehousing (S1)
<input type="checkbox"/>	FIT5202 Data processing for big data (S2)	<input type="checkbox"/>	FIT5205 Data in society (S1)
<input type="checkbox"/>	FIT5206 Digital continuity (S1)		

DATA SCIENCE ELECTIVE LIST (note: not all units will be offered every year)

<input type="checkbox"/>	FIT5046 Mobile and distributed computing systems (S1)	<input type="checkbox"/>	FIT5047 Intelligent systems (S1)
<input type="checkbox"/>	FIT5057 Project management (S1, S2)	<input type="checkbox"/>	FIT5088 Information and knowledge management systems (S1)
<input type="checkbox"/>	FIT5097 Business intelligence modelling (S2)	<input type="checkbox"/>	FIT5106 Information organisation (S2)
<input type="checkbox"/>	FIT5107 Recordkeeping informatics (S2)	<input type="checkbox"/>	FIT5108 Reading unit (approval required) (S1, S2)
<input type="checkbox"/>	FIT5109 Research topic (S1, S2)	<input type="checkbox"/>	FIT5139 Advanced distributed and parallel systems (not offered 2019)
<input type="checkbox"/>	FIT5166 Information retrieval systems (S2)	<input type="checkbox"/>	FIT5146 Data curation and management (S2)
<input type="checkbox"/>	FIT5195 Business intelligence and data warehousing (S1)	<input type="checkbox"/>	FIT5201 Data analysis algorithms (S1, S2)
<input type="checkbox"/>	FIT5202 Data processing for big data (S2)	<input type="checkbox"/>	FIT5204 Digital heritage (not offered 2019)
<input type="checkbox"/>	FIT5205 Data in society (S1)	<input type="checkbox"/>	FIT5206 Digital continuity (S1)
<input type="checkbox"/>	FIT5207 Data for sustainability (not offered 2019)	<input type="checkbox"/>	FIT5211 Algorithms and data structures (S1, S2)
<input type="checkbox"/>	FIT5212 Data analysis for semi-structured data (not offered 2019)	<input type="checkbox"/>	FITXXXX Discrete optimisation (S1)

3. ADVANCED PRACTICE (24 PTS)

Students must complete 24 points of either research† or industry‡ units, as follows:

RESEARCH UNITS†

<input type="checkbox"/>	FIT5125 IT Research methods (S1, S2)
<input type="checkbox"/>	FIT5126 Masters thesis part 1 (S1, S2)
<input type="checkbox"/>	FIT5127 Masters thesis part 2 (S1, S2)
<input type="checkbox"/>	FIT5128 Masters thesis final (S1, S2)

INDUSTRY UNITS‡

<input type="checkbox"/>	FIT5120 Industry experience studio project (12 points) (S1, S2)
<input type="checkbox"/>	FIT5122 Professional practice (S1, S2)
<input type="checkbox"/>	1 x FIT level 5 unit (S1, S2)

† **Research component to be completed across final two semesters:** To be eligible to undertake a research unit, you must have successfully completed 24 points of level five FIT-coded units and have achieved an average of 75 per cent across all these units.

‡ **Industry component to be completed in final semester**

NOTES:

Credit Points	Unless specified, all units are worth 6 credit points. Master of Data Science is a total of 96 credit points
Unit Requisites	All pre-requisite and co-requisite requirements must be completed prior to enrolling in subsequent unit(s)
Degree Duration	1, 1.5, or 2 years full-time, 2, 3, or 4 years part-time
Time Limit	Time limit = (Degree Duration x 2) + 2 = 4, 5, or 6 years in which to complete this award from the time they first commence. Periods of intermission are counted toward the time limit.
Key	S1 = Semester 1, S2 = Semester 2, W = Winter, Sum = Summer
Monash University Handbook	Students should follow course map in conjunction with the course requirements for the year the course was commenced http://monash.edu/pubs/2019handbooks/courses/index-byfaculty-it.html