MASTER OF DATA SCIENCE (C6004)
— 2019 COURSE MAP —

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

FOUNDATION UNITS (All offered S1 and S2)

☐ FIT9133 Programming foundations in Python OR
FIT9136 Algorithms and programming foundations in Python

☐ FIT9123 Introduction to business information systems OR
FIT9134 Computer architecture and operating systems OR
FIT9137 Introduction to computer architecture and networks

☐ FIT9132 Introduction to databases

☐ MAT9004 Mathematical foundations for data science

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

CORE UNITS

☐ FIT5145 Introduction to data science (S1, S2)

☐ FIT5197 Statistical data modelling (S1, S2**)**

☐ FIT5196 Data wrangling (S1, S2)

3. Students must complete
   a. Four units (24 points) from either the Advanced Data Analytics Stream or the Data Science Stream, plus
   b. 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. (S2 2020 FIT5202)

ADVANCED DATA ANALYTICS STREAM

☐ FIT5147 Data exploration and visualisation (S1, S2)

FIT5149 Applied data analysis (S1, S2)

☐ FIT5201 Data analysis algorithms (S1, S2)

FIT5148 Big data management and processing (not offered)
OR FIT5202 Data processing for big data (S2)
OR FIT5212 Data analysis for semi-structured data (S1)

OR

DATA SCIENCE STREAM

☐ FIT5097 Business intelligence modelling (S2)

☐ FIT5147 Data exploration and visualisation (S1, S1)

☐ FIT5149 Applied data analysis (S1, S2)

☐ FIT5202 Data processing for big data (S2)

☐ FIT5206 Digital continuity (S1)

☐ FIT5146 Data curation and management (S2)

☐ FIT5148 Big data management and processing (not offered)

☐ FIT5195 Business intelligence and data warehousing (S1)

☐ FIT5205 Data in society (S1)

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

☐ FIT5046 Mobile and distributed computing systems (S1)

☐ FIT5057 Project management (S1, S2)

☐ FIT5097 Business intelligence modelling (S2)

☐ FIT5107 Recordkeeping informatics (S2)

☐ FIT5109 Research topic (approval required) (S1, S2)

☐ FIT5166 Information retrieval systems (S2)

☐ FIT5195 Business intelligence and data warehousing (S1)

☐ FIT5202 Data processing for big data (S2)

☐ FIT5205 Data in society (S1)

☐ FIT5207 Data for sustainability (not offered)

☐ FIT5212 Data analysis for semi-structured data (S1)

☐ FIT5047 Fundamentals of artificial intelligence (S1)

☐ FIT5088 Information and knowledge management systems (S1)

☐ FIT5106 Information organisation (S2)

☐ FIT5108 Reading unit (approval required) (S1, S2)

☐ FIT5139 Advanced distributed and parallel systems (not offered)

☐ FIT5146 Data curation and management (S2)

☐ FIT5201 Data analysis algorithms (S1, S2)

☐ FIT5204 Digital heritage (not offered)

☐ FIT5206 Digital continuity (S1)

☐ FIT5211 Algorithms and data structures (Not offered)

3. ADVANCED PRACTICE (24 PTS)

Students must complete 24 points of either research† or industry‡ units (offered S1 and S2), as follows:

RESEARCH UNITS†

☐	FIT5125 IT research methods
☐	FIT5126 Masters thesis part 1
☐	FIT5127 Masters thesis part 2
☐	FIT5128 Masters thesis final

INDUSTRY UNITS‡

☐	FIT5120 Industry experience studio project **(12 points)**
☐	FIT5122 Professional practice
☐	One elective unit from the approved data science elective list or an FIT coded level 5 unit, or any level 5 unit offered by another faculty of the University.

† 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