Master of Data Science (C6004) – 2022

Industry experience stream

Year 1 (48 credit points)

First Semester	**FIT9132** Introduction to databases	**FIT9136** Algorithms and programming foundations in python	**FIT9137** Introduction to computer architecture and networks	**MAT9004** Mathematical foundations for data science and AI
Second Semester	**FIT5145** Introduction to data science [FIT9136 and FIT9132]	**FIT5147** Data exploration and visualisation	**FIT5196** Data wrangling [FIT9136]	**FIT5197** Statistical data modelling [FIT9136 and MAT9004]

Year 2 (48 credit points)

First Semester	**FIT5125** IT research methods	**Data Science core unit ***	**Data Science core unit ***	**Data Science core unit ***
Second Semester	**FIT5120** Industry experience project (12 points [Completion of 72 points, Co-requisite: FIT5122]		**FIT5122** IT professional practice [Co-requisite: FIT5120]	**Level 5 Elective**

Research stream**

Year 1 (48 credit points)

First Semester	**FIT9132** Introduction to databases	**FIT9136** Algorithms and programming foundations in python	**FIT9137** Introduction to computer architecture and networks	**MAT9004** Mathematical foundations for data science and AI
Second Semester	**FIT5145** Introduction to data science [FIT9136 and FIT9132]	**FIT5125** IT research methods	**FIT5196** Data wrangling [FIT9136]	**FIT5197** Statistical data modelling [FIT9136 and MAT9004]

Year 2 (48 credit points)

First Semester	**FIT5126** Masters thesis part 1 [FIT5125, Co-requisite: FIT5127]	**FIT5127** Masters thesis part 2 [Co-requisite: FIT5126]	**FIT5147** Data exploration and visualisation	**Data Science core unit ***
Second Semester	**FIT5228** Masters thesis part 3 [FIT5127, Co-requisite: FIT5229]	**FIT5229** Masters thesis final [Co-requisite: FIT5228]	**Data Science core unit ***	**Data Science core unit ***

	FOUNDATION		CORE MASTER'S STUDIES		ADVANCED PRACTICE

*Data Science core units:

FIT5149 Applied data analysis
FIT5201 Machine learning
FIT5202 Data processing for big data
FIT5205 Data in society
FIT5212 Data analysis for semi-structured data
FIT5230 - Malicious AI
BMS5021 Introduction to bioinformatics
BMS5022 Advanced bioinformatics

** Research stream requirements

- To be eligible for the research stream, students must have successfully completed 24 points of level five (non-foundation) FIT units and achieved an overall average of at least 75 per cent across all of these units.
- Applications for the Research stream must be submitted by 31 January (for S1 thesis start) or 30 June (for S2 thesis start). Students will be notified when applications open for each intake.
- Research stream information and application: https://www.monash.edu/it/current-students/enrolment/honours-and-minor-thesis

Notes

Credit points	Unless specified, all units are worth 6 credit points Master of Data Science 16 units x 6cp = Total of 96 credit points
Year Level Requirements	1) A maximum of 24 points of level 9 (foundation) units will be counted; 2) At least 72 points must be completed at level 5.
Unit requisites	All pre-requisite and co-requisite requirements must be undertaken in order to be able to enrol into a specific unit
Duration of degree	2 years full-time, 4 years part-time
Time limit	Time limit = 6 years. Students have six years in which to complete this award from the time they commence. Periods of intermission are counted as part of the six years.
Monash University handbook	Students should follow the course requirements for the year the course was commenced https://handbook.monash.edu/browse/By%20Faculty/FacultyofInformationTechnology