1. FOUNDATION UNITS (24 PTS)

Students must complete:

a) four foundation units (24 points):

- FIT9131 Programming foundations
- FIT9132 Introduction to databases
- MAT1830 Discrete mathematics for computer science or MAT2003 Continuous mathematics for computer science OR
- MAT9004 Mathematical foundations for data science*

* Students that have satisfied the mathematics or statistics unit requirement must instead complete FIT5197 in the foundation block.

ADVANCED DATA ANALYTICS STREAM

- FIT9059 Algorithms and Data Structures OR FIT5211 Algorithms and Data Structures

2. CORE UNITS (48 PTS)

Students must complete:

a) three units (18 points) from the list below:

- FIT5145 Introduction to data structures
- FIT5196 Data wrangling
- FIT5197 Modelling for data analysis

ADVANCED DATA ANALYTICS STREAM

b) four units (24 points):

- FIT5147 Data exploration and visualisation
- FIT5148 Distributed and big data processing
- FIT5149 Applied data analysis
- FIT5201 Data analysis

c) one unit (6 points) selected from the approved Data Science elective list below.

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

- FIT5046 Mobile and distributed computing systems
- FIT5087 Archival systems
- FIT5097 Business intelligence modelling
- FIT5107 Managing business records
- FIT5146 Data curation and management
- FIT5195 Business intelligence and data warehousing
- FIT5204 Heritage informatics
- FIT5206 Digital continuity
- FIT5047 Intelligent systems
- FIT5088 Information and knowledge management systems
- FIT5106 Information organisation
- FIT5139 Advanced distributed and parallel systems
- FIT5166 Information retrieval systems
- FIT5201 Data analysis
- FIT5205 Data in society
- FIT5207 Data for sustainability
3. ADVANCED PRACTICE (24 PTS)

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

<table>
<thead>
<tr>
<th>RESEARCH UNITS†</th>
<th>INDUSTRY UNITS‡</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIT5125 IT Research methods</td>
<td>FIT5120 Industry experience studio project (12 points)</td>
</tr>
<tr>
<td>FIT5126 Masters thesis part 1</td>
<td>FIT5122 Professional practice</td>
</tr>
<tr>
<td>FIT5127 Masters thesis part 2</td>
<td>one unit from the approved Data Science elective list above</td>
</tr>
<tr>
<td>FIT5128 Masters thesis final</td>
<td></td>
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</tbody>
</table>

† Research component to be completed across final two semesters: To enrol in the research units, students must have successfully completed 24 points of level five units and have achieved an overall average of at least 75% across all units.

‡ Industry component to be completed in final semester

NOTES:

<table>
<thead>
<tr>
<th>Credit Points</th>
<th>Unless specified, all units are worth 6 credit points. Master of Data Science is a total of 96 credit points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit Requisites</td>
<td>All pre-requisite and co-requisite requirements must be undertaken in order to be able to enrol into a specific unit</td>
</tr>
<tr>
<td>Degree Duration</td>
<td>1, 1.5, or 2 years full-time, 2, 3, or 4 years part-time</td>
</tr>
<tr>
<td>Time Limit</td>
<td>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.</td>
</tr>
<tr>
<td>Monash University Handbook</td>
<td>Students should follow course map in conjunction with the course requirements for the year the course was commenced <a href="http://monash.edu/pubs/handbooks/courses/index-byfaculty-it.html">http://monash.edu/pubs/handbooks/courses/index-byfaculty-it.html</a></td>
</tr>
</tbody>
</table>