1. FOUNDATION UNITS (24 PTS)

Students must complete:

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

- FIT9131 Programming foundations
- FIT9132 Introduction to databases
- FIT9133 Mathematical foundations for data science* (MAT1830 Discrete mathematics for computer science or MAT2003 Continuous mathematics for computer science), OR

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

b) one unit (6 points) from the Data Science stream foundation units below:

DATA SCIENCE STREAM

- FIT9059 Algorithms and data structures OR FIT5211 Algorithms and Data Structures
- FIT9123 Introduction to business
- FIT9134 Computer architecture and operating systems
- FIT9135 Data communications

2. CORE UNITS (48 PTS)

Students must complete:

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

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

DATA SCIENCE STREAM

b) four units (24 points) selected from:

- FIT5097 Business intelligence modelling
- FIT5147 Data exploration and visualisation
- FIT5149 Applied data analysis
- FIT5206 Digital continuity
- FIT5146 Data curation and management
- FIT5148 Distributed and big data processing
- FIT5205 Data in society

 c) one elective unit (6 points) selected from any unit in b) not already completed, or 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</td>
</tr>
<tr>
<td>FIT5128 Masters thesis final</td>
<td></td>
</tr>
</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>