

Master of Data Science (C6004) – 2025

Industry experience stream

Year 1 (48 credit points)

| | | | | |
|-----------------|--|--|--|--|
| First semester | FIT9132 Introduction to databases | FIT9136 Introduction to Python programming | FIT9137 Introduction to computer architecture and networks | MAT9004 Mathematical foundations for data science and AI |
| Second Semester | FIT5145 Introduction to data science | FIT5125 IT research and innovation methods | FIT5057 Project management | FIT5197 Statistical data modelling |

Year 2 (48 credit points)

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|-----------------|---|----------------------------------|--|--|
| First Semester | FIT5147 Data exploration and visualisation | FIT5196 Data wrangling | Data Science elective unit* | Level 5 Elective |
| Second Semester | FIT5120 Industry experience project (12 points) | | FIT5122 IT professional practice | FIT5202 Data processing for big data |

Research stream**

Year 1 (48 credit points)

| | | | | |
|-----------------|--|--|--|--|
| First Semester | FIT9132 Introduction to databases | FIT9136 Introduction to Python programming | FIT9137 Introduction to computer architecture and networks | MAT9004 Mathematical foundations for data science and AI |
| Second Semester | FIT5145 Introduction to data science | FIT5125 IT research and innovation methods | FIT5057 Project management | FIT5197 Statistical data modelling |

Year 2 (48 credit points)

| | | | | |
|-----------------|---|--|--|--|
| First Semester | FIT5126 Masters thesis part 1 | FIT5147 Data exploration and visualisation | FIT5196 Data wrangling | Data Science elective unit* |
| Second Semester | FIT5127 Masters thesis part 2 | FIT5128 Masters thesis final | FIT5122 IT professional practice | FIT5202 Data processing for big data |

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|--|------------|-----------------------|-------------------|
| | FOUNDATION | CORE MASTER'S STUDIES | ADVANCED PRACTICE |
|--|------------|-----------------------|-------------------|

*Data Science core units (choose 1):

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|--|--|
| FIT5149 Applied data analysis [FIT5197] | FIT5230 Malicious AI [FIT9136] |
| FIT5201 Machine learning [FIT5145 & MAT9004] | BMS5021 Introduction to bioinformatics |
| FIT5212 Data analysis for semi-structured data [FIT5197] | |

** Research stream requirements

- To be eligible for the research stream, students must have successfully completed 24 points of level five (non-foundation) FIT units, achieved an overall average of at least 75 per cent across all these units and achieved an overall course average of 65%.
- 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>

Industry experience stream – July intake

Year 1 (24 credit points)

| | | | | |
|------------------------|---|--|--|--|
| Second Semester | FIT9132 Introduction to databases | FIT9136 Introduction to Python programming | FIT9137 Introduction to computer architecture and networks | MAT9004 Mathematical foundations for data science and AI |
|------------------------|---|--|--|--|

Year 2 (48 credit points)

| | | | | |
|------------------------|--|--|--|--|
| First Semester | FIT5145 Introduction to data science | FIT5125 IT research and innovation methods | FIT5057 Project management | FIT5197 Statistical data modelling |
| Second Semester | FIT5147 Data exploration and visualisation | FIT5196 Data wrangling | FIT5202 Data processing for big data | Data Science elective unit* |

Year 3 (24 credit points)

| | | | |
|-----------------------|---|--|-------------------------|
| First Semester | FIT5120 Industry experience project (12 points) | FIT5122 IT professional practice | Level 5 Elective |
|-----------------------|---|--|-------------------------|

Research stream** – July intake

Year 1 (24 credit points)

| | | | | |
|------------------------|---|--|--|--|
| Second Semester | FIT9132 Introduction to databases | FIT9136 Introduction to Python programming | FIT9137 Introduction to computer architecture and networks | MAT9004 Mathematical foundations for data science and AI |
|------------------------|---|--|--|--|

Year 2 (48 credit points)

| | | | | |
|------------------------|--|--|--------------------------------------|--|
| First Semester | FIT5145 Introduction to data science | FIT5125 IT research and innovation methods | FIT5057 Project management | FIT5197 Statistical data modelling |
| Second Semester | FIT5126 Masters thesis part 1 | FIT5147 Data exploration and visualisation | FIT5196 Data wrangling | FIT5202 Data processing for big data |

Year 3 (24 credit points)

| | | | | |
|-----------------------|---|--|--|------------------------------------|
| First Semester | FIT5127 Masters thesis part 2 | FIT5128 Masters thesis final | FIT5122 IT professional practice | Data Science elective unit* |
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Notes

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| 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 |