Master of Data Science Specialisations

Introduction to Data Science Specialisations

The Master of Data Science at the University of Melbourne has 4 available specialisations. These specialisations are determined at the time of admission into the program and are selected on the basis of a students previous education background.

The Master of Data Science is a 2-year, 200 credit point program comprising of:

- 75 points of Core subjects
- 25 points of Capstone subjects
- **100 points of a formal specialisation**

Foundational Data Science Specialisation

The Foundational Data Science Specialisation allows students whose first degree was not in Statistics or Computer Science to learn the foundations of, and demonstrate expertise in the field of Data Science.

The 100 points of the Foundational Data Science Specialisation consists of initial foundational subjects in:

- MAST90105 Methods of Mathematical Statistics
- MAST90104 A First Course In Statistical Learning
- COMP90041 Programming and Software Development
- COMP90038 Algorithms and Complexity
- COMP20008 Elements of Data Processing
- INFO90002 Database Systems & Information Modelling

Statistical Data Science Specialisation

The Statistical Data Science Specialisation allows students who have a significant undergraduate background in Statistics to learn more advanced techniques in Mathematical and Statistical data analysis and their applications to Data Science.

The 100 points of the Statistical Data Science Specialisation consists of:

- 12.5 points of Statistics Core Discipline Subjects
  - Inference for Spatio-Temporal Processes OR Bayesian Statistical Learning
- 87.5 points of elective subjects consisting of a minimum of 1 Statistics Discipline elective

Computational Data Science Specialisation

The Computational Data Science Specialisation allows students who have a significant undergraduate background in Computer Science to learn more advanced Computational Data Analysis techniques.

The 100 points of the Computational Data Science Specialisation consists of:

- 12.5 points of Computer Science Core Discipline Subjects
  - Natural Language Processing OR Computer Vision
- 87.5 points of elective subjects consisting of a minimum of 1 Computer Science Discipline elective

Computational and Statistical Data Science Specialisation

The Computational and Statistical Data Science Specialisation allows students who have a significant undergraduate background in Computer Science and Statistics to learn further advanced techniques in Mathematical and Statistical analysis and their applications to Data and Computational Data Analysis.

The 100 points of the Computational and Statistical Data Science Specialisation consists of:

- 25 points of Core Discipline Subjects
  - 12.5 points of Statistics Core Discipline AND 12.5 points of Computer Science Core Discipline subjects
- 75 points of elective subjects consisting of a minimum of 1 Statistics elective and 1 Computer Science elective

Students eligible for the Computational and Statistical Data Science specialisation may be eligible to receive up to 50 points of advanced standing.