Further your understanding of the mathematical and statistical modelling of data to forecast trends and predict outcomes in a variety of industries, including scientific and commercial sectors.

The program will develop your knowledge of statistical and operations research methodologies.

You will combine a theoretical foundation with practical applications of current techniques employed by practising engineers, scientists and other professionals in industry, research, consulting, teaching and business.

This is achieved using statistical software accompanied by an in-depth understanding of the statistical processes involved.

You will be particularly knowledgeable, creative and critical in the sense of how you interpret and analyse data. You will also be equipped with the ability to apply knowledge to solve a wide range of real-world problems.

You will be exposed to a wide variety of analytics tools including R, SQL, SAS Enterprise Guide, SAS Enterprise Miner, Python, Java, Julia, CPLEX, Gurobi and Arena.

The program includes an industry project component and/or minor thesis which will develop your consulting and research skills.

Career outlook
Demand for statistical and operations research skills is growing in a data-driven world.

Graduates are employed by a variety of scientific commercial and government enterprises, most commonly as data scientists, statisticians, business analysts, consultants, modellers and researchers.

Industry connections
You will apply your knowledge and skills via consulting and work-integrated learning. Your involvement with industry projects and data will give you the chance to build your theoretical capabilities in the context of practical problems.

The program is linked to industry through the Industry Advisory Committee (IAC) and through various consulting and research projects undertaken by staff.

Members of the IAC provide valuable input and insight into industry trends, the introduction of specialisations and, most importantly, support for the introduction of work integrated learning (WIL).

WIL is incorporated in each year of the program through guest speakers, industry projects and, when available, student placements/internships in industry.

Learning and teaching
The program is offered through a flexible combination of lectures, tutorials and computer laboratory classes.

Classes are usually held once a week in the evenings. There are also opportunities for you to work as part of a team on projects and in consulting activities.

Professional recognition
Graduates of the Master of Analytics program may be eligible to become a member of the following organisations:
- Statistical Society of Australia Inc. (SSAI)
- Australian Society for Operations Research (ASOR)
- American Statistical Association (ASA)
- Institute for Operations Research and the Management Sciences (INFORMS)
- Institute of Analytics Professionals of Australia (IAPA).

Program snapshot
Program code: MC004

Exit points
After completing 96 credit points of study approved by the program manager, you may exit with a Graduate Diploma in Statistics and Operations Research

Duration
Full-time: 2 years
Part-time: 4 years

Location
City campus

Program Manager
Dr. Mali Abdollahian
Tel. +61 3 9925 2248
Email: mali.abdollahian@rmit.edu.au

How to apply
Direct to RMIT University:
rmit.edu.au/programs/apply/direct

Fees
To learn how to calculate your fees visit:
rmit.edu.au/programs/fees/postgraduate

rmit.edu.au/programs/mc004
Program structure

The Master consists of 192 credit points.

The first year of the program includes four core courses in statistics, analytics and data, which lay the foundation of the program.

Throughout the program students will choose up to four science electives and seven program electives from analytics, statistics and operations research courses.

The final year includes an applied research project course where students work on a real industry problem. Students who find approved placements or internships in their second year can have them count towards the applied research project course.

Program elective examples

- Advanced Programming Techniques
- Algorithms and Analysis
- Analysis of Categorical Data
- Applied Bayesian Statistics
- Artificial Intelligence
- Data Mining
- Distributed Mapping
- Forecasting
- GIS Analytics
- GIS Fundamentals
- GIS Principles
- Human Geography

Credit and exemptions

If you have successfully completed one of the following qualifications majoring in analytics, statistics, operations research or a relevant discipline you may be eligible for exemptions as follows:

<table>
<thead>
<tr>
<th>Qualification level</th>
<th>Exemptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor degree</td>
<td>Up to 48 credit points (equivalent to one semester of full-time study)</td>
</tr>
<tr>
<td>(honours)</td>
<td></td>
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<tr>
<td>Graduate certificate</td>
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<tr>
<td>(AQF Level 7 or equivalent)</td>
<td></td>
</tr>
<tr>
<td>Bachelor degree</td>
<td>Up to 96 credit points (equivalent to two semesters of full-time study)</td>
</tr>
<tr>
<td>(honours)</td>
<td></td>
</tr>
<tr>
<td>Graduate diploma</td>
<td></td>
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<tr>
<td>Master</td>
<td></td>
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<tr>
<td>PhD (AQF Level 7 or higher)</td>
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</tbody>
</table>

If you have successfully completed one of the following qualifications majoring in information technologies, information security, computer science, geospatial science or a relevant discipline you may be eligible for exemptions as follows:

<table>
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<tr>
<td>Master</td>
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<tr>
<td>PhD</td>
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</tbody>
</table>

Note that the exemptions mentioned above cannot be used to exit with a graduate diploma.

Entry requirements

You must have one of the following:

- A bachelor degree

OR

- At least 10 years of relevant work experience.

International qualifications are assessed according to the Australian Qualifications Framework (AQF).