Master of Data Analytics

This course will prepare you for a future-focused career in the fast-paced, ever-changing world of data analytics. With a collaborative curriculum across disciplines you’ll not only learn theories and methods, but you’ll apply that knowledge to predict, forecast, visualise and make decisions in a range of applied areas.

You will study specialist units in advanced statistical data analysis, data mining techniques and applications, data manipulation, analytics for information professionals and advanced stochastic modelling.

Why choose this course?
Be future-focused and stay ahead of the curve. Drive real change and impact key decisions by learning how to make sense of the volume, variety, and velocity of data we collect as a society.

Our academics are world leaders in research and have strong industry ties that ensures the relevance of teaching material and high-quality learning experiences for students.

Real-world learning
This course is designed to specifically meet industry needs. We’ve brought together expertise in statistics, computer science, and business process management disciplines to deliver real-world learning opportunities.

You’ll:
- build significant project-based experience that allows you to constructively apply your analytical skills to complex problem domains
- experience applying high-order thinking strategies within data-rich contexts through the synthesis of multiple sources of information
- apply specialist abstraction and synthesis techniques to solve complex data analytics problems that are inspired by real-world scenarios.

Entry requirements
Academic entry requirements
1.5 year program
You must have a completed recognised bachelor degree in information technology or mathematics (or related field), with a minimum grade point average of 4.00 (on QUT’s 7 point scale).

2 year program
You must have a completed recognised bachelor degree in any discipline with a minimum grade point average of 4.0 (on QUT’s 7 point scale).

Note: You don’t need to apply separately for the 1.5 year program. You’ll be automatically assessed for eligibility as part of our admission process.

Course structure
You must complete 192 credit points of course units, consisting of:
- 48 credit points of core units
- 48 credit points of professional preparation units
- 48 credit points of advanced units
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- 48 credit points of elective units selected from an approved list.

**Selecting your units**
When you finish this course, you will emerge with skills and a specialisation in one of:
- data analysis
- data systems development
- data-driven decision making.

**Data analysis**
As a data analyst, you apply your data mining and modelling skills to perform analysis of data to inform evidence-based decision making. You will be experienced in understanding and using statistical methods in this process. You will use appropriate tools to create data visualisations that effectively communicate data-driven insights to broader audiences.

Suggested professional preparation and advanced units selection:
- Databases (IFN554) + Introduction to Programming (IFN555)
- Data Exploration and Mining (IFN509)
- Biomedical Data Science (IFN646)
- Text, Web and Media Analytics (IFN647)
- Statistical Data Analysis (MXN500)
- Stochastic Modelling (MXN501)
- Advanced Statistical Data Analysis (MXN600)
- Advanced Stochastic Modelling (MXN601).

**Data systems development**
As a data systems development professional, you will use highly technical skills to architect computationally efficient data analysis solutions to reveal insights that can't be achieved with existing methods and tools.

Suggested professional preparation and advanced units selection:
- Systems Analysis and Design (IFN552) + Object Oriented Programming (IFN556)
- Databases (IFN554) + Introduction to Programming (IFN555)
- Data Exploration and Mining (IFN509)
- Data Mining Technology and Applications (IFN645)
- Biomedical Data Science (IFN646)
- Advanced Information Storage and Retrieval (IFN647)
- Statistical Data Analysis (MXN500)
- Advanced Statistical Data Analysis (MXN600)

**Data-driven decision-making**
As a data-driven decision maker, you’ll use insights provided by data analysts for forecasting future demand, risk assessment, and the development of business insights. Your broad knowledge of data science tools and techniques is employed to interpret results and design new solutions to drive business transformation.

Suggested professional preparation and advanced units selection:
- Introduction to Programming (IFN555) + Object Oriented Programming (IFN556)
- Fundamentals of Business Process Management (IFN515)
- Data Mining Technology and Applications (IFN645)
- Advanced Information Storage and Retrieval (IFN647)
- Business Process Analytics (IFN650)
- Statistical Data Analysis (MXN500)
- Stochastic Modelling (MXN501)
- Advanced Statistical Data Analysis (MXN600)

**Students in the 1.5 year program**
Please note: study plans are determined based on prior qualifications. The placement of the 48 credit point reduction across the study plan may vary between students. Clarification can be sought from the Course Coordinators once admitted.

**Careers and outcomes**
When you graduate, you’ll be able to apply different approaches, techniques and tools to data in different industry contexts to solve complex problems.

You’ll have the skills necessary to transform data into knowledge for any industry, including banking and finance, media and communications, health, education, information technology, engineering, agriculture and mining.

**Fees**

**FEE-HELP**
You may be eligible for FEE-HELP, a loan scheme to help you pay your course fees, if you are an Australian citizen or hold an Australian permanent humanitarian visa. For other conditions read the FEE-HELP information.

**Student Services and Amenities Fee**
You’ll need to pay the student services and amenities fee as part of your course costs. You may be eligible for SA-HELP, a loan scheme to help you pay your student services and amenities fee, if you are an Australian citizen or hold an Australian permanent humanitarian visa.