

QUT mathematics and data science



Undertake a modern, computationally focused mathematics or data science degree with real-world components—including a semester-long collaborative project with an industry partner. Recent projects have included using machine learning to analyse retail data, modelling species conservation using differential equations, optimising water distribution in South East Queensland, understanding groundwater contamination flows, and improving athlete performance.

Bachelor of Mathematics

Build your mathematics skills to solve real-world problems with advanced mathematical, computational and statistical techniques taught by internationally recognised academics and researchers.

- Equip yourself with the specialist analytical skills required to tackle today's complex scientific, computational and modelling problems.
- Play an integral role in the workplace with a modern, relevant and engaging mathematics degree designed for the real world and underpinned by our award-winning research.
- Solve real-world problems and develop skills for a career in various areas such as finance, investment, information technology, environmental management, health, marketing, logistics, defence, media, education and research.

Choose the Bachelor of Mathematics if you have a passion for exploring how university-level mathematics is used in industry and research to understand and improve the real world.

Bachelor of Data Science

Our data science degree combines studies in mathematics and information technology to provides the most up-to-date knowledge and techniques in this fast-evolving field. Become a skilled and effective analyst who can lead data-driven decision making across a wide range of industries, being confident and capable of translating information into clear and meaningful insights.

Choose the Bachelor of Data Science if you want to combine your interest in mathematics, computer science and information systems to step directly into the exciting new field of data science.

Work Integrated Learning

All students in our degrees undertake a project unit of study jointly led by an academic and an industry partner. This provides students with a valuable opportunity to apply their skills to a real-world problem and connect with industry partners. This feature of QUT degrees is unique among Queensland's mathematics and data science degrees.

Scholarships

Adeline Arts and Science Scholarship for Women in Mathematics

Financial support for women pursuing a degree in mathematics. Valued up to \$20,000.

Westpac Young Technologists Scholarship

Exclusive scholarship available at only five universities nationally. Available for IT, games and data science students. Valued up to \$20,000 plus professional development opportunities.

Scholarship for Women and Non-Binary People

Supporting individuals who may encounter obstacles due to their gender, and creating diverse and inclusive groups for careers in science, mathematics and IT.

Indigenous Australian Scholarship

We are committed to enhancing Aboriginal and Torres Strait Islander participation in science, mathematics and IT, and ensuring that students achieve their full potential.

qut.edu.au/scholarships

Mathematics and data science careers

Position title	Relevant fields of mathematics and statistics	Examples of career directions	Examples of Queensland employers	
Data scientist	- artificial intelligence - machine learning - statistics	- Consulting - Mining - Retail	- Mining companies - Big consulting firms - Artificial intelligence and technology startups and scaleups	- Government - Large retailers - Insurers
Statistician	- statistics - machine learning - econometrics	- Consulting - Mining - Retail	- Government - Big consulting firms - QIC - Insurers	- Hospitals - CSIRO and research institutions
Data analyst	- data visualisation - data modelling - statistics	- Statistician - Economist - Actuary	- Business insights firms - Synengco - Business analyst firms	- Big consulting firms - Government - Large retailers - McGrathNicol - Data#3
Quantitative analyst	- share trading - risk and actuarial analysis - price hedging	- Consulting - Finance - Insurance	- Stock traders - Banks	- Super funds - Insurers
Optimisation analyst	operations research	- Consulting - Mining - Logistics	- Biarri - Deswik - Dassault Systems	- Queensland Rail - Virgin Australia - Mining companies
Bioinformatician or biostatistician	computational biology	- Bioinformatics - Biostatistician - Pharmaceuticals	- CSL - QIMR Berghofer Medical Research Institute - Department of Health	- Hospitals - Department of Agriculture and Fisheries
Systems modeller or simulation scientist	computational fluid dynamics	- Consulting - Engineering - Manufacturing	- Bureau of Meteorology - Bitzios Consulting - FE Consultants	- Stacey Agnew - Australian Signals Directorate
Discrete event simulation modeller	- operations research - statistics	- Consulting - Mining - Logistics	- Deswik - Aurecon - Hatch - GHD - Boston Consulting Group	- Mining companies - Aurizon - Department of Transport and Main Roads
Modelling software engineer	- algorithm design - high-performance computing	All industries	- Atlassian - Canva - Google - Facebook	- Microsoft - Banks - Big consulting firms
Researcher	all fields of mathematics and statistics	Research	- All universities - CSIRO - Australian Institute of Marine Science	- Defence Science and Technology - QIMR Berghofer Medical Research Institute