Mathematics and statistics graduates use their analytical and problem-solving skills in a vast array of roles and settings to gain insights into many real-world problems of significant importance. They can develop new financial products in the banking industry, optimise transportation schedules in today’s busy world, or help understand customer value in the commercial world. They can also aid scientific research by data mining to discover genetic links and pathways or help to understand disease transmission of a pandemic.

**Why choose this course?**
Many of our academics are world leaders in research and have strong industry ties that ensure the relevance of teaching material and high-quality learning experiences. The statistics major will provide you with the methodology for analysing data using empirical, theoretical and computational tools. You will discover complex statistical techniques and concepts through applications and datasets from the real world, providing strong links between theory and application.

You will also gain a fundamental and thorough understanding of statistics and statistical methodology, and the ability to apply such quantitative skills in real-world scenarios, preparing you for a career in industry, government and/or research.

**Subject prerequisites**
- Maths B
- Recommended Study: Maths C

**Minimum English requirements**
Students must meet the English proficiency requirements.

<table>
<thead>
<tr>
<th>IELTS (International English Language Testing System)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>6.5</td>
</tr>
<tr>
<td>Listening</td>
<td>6.0</td>
</tr>
<tr>
<td>Reading</td>
<td>6.0</td>
</tr>
<tr>
<td>Writing</td>
<td>6.0</td>
</tr>
</tbody>
</table>

**Sasha Richards**
**Learn from industry experts**

“There’s a great maths community at QUT. I’ve had lecturers who have worked with NASA and Microsoft, and they are all-round leaders in their fields. They’re always eager to help and approachable, and bring experience and examples to the classroom.”
Bachelor of Mathematics (Statistics)

Course structure

Course Design
Your QUT Bachelor of Mathematics degree consists of 288 credit points (24 units) arranged as follows:

- 96 credit points (8 units) of core units, which include a core option units selected from an approved list
- 96 credit points (8 units) of major units
- 96 credit points of complementary studies comprising of either a second major (8 unit set) or two minors (4 unit set each)

Mathematics Core Units
These units give you the grounding in mathematical theory and practice upon which your major units will build, and also provide an introductory taste of each of the three majors: applied and computational mathematics; operations research; and statistics.

Core Option Units
You may choose from a wide variety of introductory units from other disciplines offered at QUT, or you may choose additional mathematics units. The additional mathematics units include a unit specially designed to assist students without a background of successful study in Mathematics C at high school; an alternative unit aimed at high achieving students that explores some interesting and unusual aspects of mathematics in some detail; and a unit introducing the field of computational and simulation science which combines mathematics, science and computing to simulate real-world problems.

Major Units
Your major is your area of specialisation, in which you will acquire in-depth knowledge and expertise, preparing you for your entry into the workforce or for further study. All majors share the same introductory and advanced units in algebra and calculus, meaning you do not need to decide on your major until your second year of study.

Second Major or Minors
You may choose to undertake a second major: an 8 unit set in which you will acquire a significant depth of knowledge and expertise in an area to complement your major. You may choose a second major in applied and computational mathematics, operations research, statistics, computational and simulation science, accountancy, applied economics and finance, physics, chemistry, biological science, earth science or environmental science.

Alternatively you may choose to undertake two minors: 4 unit sets with intermediate to advanced level content which extend or supplement studies in your major. Minors are available from a range of inter- and intra-faculty disciplines, as well as experiential minors such as international exchange.

Customise your degree
Foster your passion and shape your career through complementary study areas. As well as choosing a major area of study, your course includes a second study area, which can be either a second major or double minor.

A second major can complement your major area of study, giving you the opportunity to develop a significant depth of knowledge and skills in two discipline areas.

Mathematics Second Major
- Data Science provides the necessary skills to be a data scientist including statistical methods and data visualisation, computational tools for and data management techniques for large datasets, and high-performance computing resources and techniques. This unique skill-set in statistics and computing will allow you to cope with sophisticated models applied to complex and/or large datasets.

Career outcomes
Career outcomes for graduates of the Bachelor of Mathematics (Statistics) include data analyst, quantitative analyst, researcher, risk analyst and statistician. Positions of this nature are often found with employers such as the Australian Bureau of Statistics, Queensland Treasury, state and Commonwealth governments, financial institutions, CSIRO, insurance companies and medical companies.

Professional recognition
On graduation you may be eligible for membership in the Statistical Society of Australia.

Other study options
- Bachelor of Business/Bachelor of Mathematics
- Bachelor of Engineering (Honours)/Bachelor of Mathematics
- Bachelor of Information

Scholarships
You can apply for scholarships to help you with study and living costs.
- QUT Excellence Scholarship (Academic)
- QUT Sport Scholarship (Elite Athlete)
- Equity scholarships scheme
- Undergraduate Indigenous Fee Waiver Commencing Student Scholarship