Mathematics and Statistics
The School of Mathematics & Statistics empowers discovery through creative human thought, ranging from pure abstractions to real-world applications.

As Australia’s largest and highest ranked school of mathematics & statistics, we provide comprehensive coverage of modern mathematics, underpinned by leading teaching and research. Our connections with industry provide students with experience of important practical applications of their learning, and industry with the mathematical insights of our talented students. We have links with many leading organisations such as the Roads and Maritime Services, CimmBank and SRICA.

We are proud to be the home of many leading mathematicians including Fellow of the Royal Society, Trevor McDougall, and past President of the Institute of Actuaries Australia. I'm excited to have found a niche of mathematically minded people in the Institute of Actuaries Australia. I now work as an Actuarial Analyst at Taylor Fry Consulting Actuaries, and I am an Associate member of the Institute of Actuaries Australia. I studied mathematics at UNSW in the beginning. It didn’t take too long for me to realise that I didn’t just need to study mathematics; I wanted to. In later years, the classes shrunk and I developed a strong relationship with a small group of mathematically minded people. They all needed mathematics in the beginning. It didn’t take too long for me to realise that I didn’t just need to study mathematics; I wanted to. In later years, the classes shrunk and I developed a strong relationship with a small group of mathematically minded people.

Undergraduate Studies in Mathematics and Statistics

Bachelor of Science (Advanced Mathematics)

The Advanced Mathematics degree is aimed at high achieving students who wish to specialise in mathematics. It is a very high level degree over a broad range of fields. Secondly, a mathematics degree at UNSW has given me a lot of flexibility with what I have wanted to study. This allowed me to extend myself with higher levels of mathematics, as well as to study courses outside of mathematics which I have found interesting. The quality and flexibility of the degree has meant that I have had a diverse range of opportunities available to me as I near the completion of my degree. I personally considered options ranging from corporate careers in finance or management consulting to further postgraduate study in mathematics, before choosing a technical role in software engineering at Google.

Career Opportunities
Mathematics and statistics graduates work in a huge variety of areas, wherever logical skill and analysis of quantitative data is needed to provide accurate and timely answers.

Areas include:
- Data Forensics/Fraud Detection - analysing patterns in large data sets to find the “needles in the haystack” of fraudulent or terrorist activity.
- Environmental Modeling - understanding of massive computer models that predict changes in weather, climate and ocean currents.
- Biostatistics - ensuring public health and testing drugs and new procedures for safety and efficacy, using statistical inference.
- Cryptography - encoding and decoding signals, for instance, financial markets, the internet and the military, as well as numerous other applications.
- Quantitative Risk - monitoring the risk positions of banks in light of changing market conditions as well as credit and operational profiles.
- Game Design - designing complex games to ensure correct probabilities and accurate simulations.
- Data Management - ensuring accuracy and accessibility of organisations' data warehouses.
- Teaching - inspiring the new generation with an understanding of the power of mathematics.
- Research - answering the many abstract questions thrown up by other sciences and by mathematics itself.

Graduates of Mathematics and Statistics are employed by a wide range of companies and organisations including Google, CSIRO, The Reserve Bank, The Australian Bureau of Statistics, Goldman Sachs, Commonwealth Bank, Telstra, and universities throughout the world.

For further information regarding careers within the sphere of Mathematics and Statistics, visit our careers page on: www.maths.unsw.edu.au/futurestudents/careers

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Programs available for Advanced Mathematics Study

- Science: 4 years, program 3986, UAC code 429300
- Science/Actuarial Studies: 5 years, program 3589, UAC code 424350
- Science/Arts: 5 years, program 3983, UAC code 429320
- Science/Commerce: 5 years, program 3523, UAC code 424200
- Science/Computer Science: 5 years, program 3946, UAC code 429331
- Science/Economics: 5 years, program 3564, UAC code 424460
- Science/Engineering: 6 years, program 3761, UAC code 429330
- Science/Law: 6 years, program 3998, UAC code 429000
- Science/Music: 5 years, program 3457, UAC code 422510
- Science/Education: 4 years, program 4078, UAC code 422110
- Science and Business: 5 years, program 3925, UAC code 429100

Other programs in Mathematics and Statistics:

- Science/Education: 4 years, program 4078, UAC code 422110
- Science and Business: 5 years, program 3925, UAC code 429100

Student Testimonial

"My first reason for choosing to study mathematics at UNSW was because of the quality and diversity of the faculty, which is one of the largest and most respected in Australia. This has given me the opportunity to study mathematics at a very high level over a broad range of fields. Secondly, a mathematics degree at UNSW has given me a lot of flexibility with what I have wanted to study. This allowed me to extend myself with higher levels of mathematics, as well as to study courses outside of mathematics which I have found interesting. The quality and flexibility of the degree has meant that I have had a diverse range of opportunities available to me as I near the completion of my degree. I personally considered options ranging from corporate careers in finance or management consulting to further postgraduate study in mathematics, before choosing a technical role in software engineering at Google."

Anthony Morris
Degree: Bachelor of Science (Advanced Mathematics) - Honours in Pure Mathematics

"In my first few years of studying mathematics at UNSW the classes were huge, I enjoyed the company of not only potential mathematicians, but also potential physicists, engineers and computer scientists, among others. They all needed mathematics in the beginning. It didn’t take too long for me to realise that I didn’t just need to study mathematics, I wanted to. In later years, the classes shrank and I developed a strong relationship with a small group of mathematically minded people.

The study of mathematics is so very diverse. A single problem can be challenging, inspiring, humbling, uplifting and fun, all at the same time. I majored in Pure Mathematics, but studied a few applied and statistical subjects as well. On the side, I filled my electives with computing subjects. I loved how interleaved it all was - how my study in one subject enriched my understanding of another.

I now work as an Actuarial Analyst at Taylor Fry Consulting Actuaries, and I am an Associate member of the Institute of Actuaries Australia. I’m excited to have found a niche of mathematically minded people in the workforce, as I did at UNSW."

Jessica Egan
Degree: Bachelor of Science (Advanced Mathematics) - Honours in Pure Mathematics