DOROTHY CHEUNG
BACHELOR OF SCIENCE (ADVANCED MATHEMATICS)/COMMERCE – HONS PURE MATHEMATICS

I chose to study mathematics at UNSW because it has a wide range of applications and I was keen to learn more at a higher level in university. I also felt that studying mathematics could lead to diverse career paths, from research to the financial industry to climate science. Studying math at UNSW was a great experience - not only did I gain knowledge on broad areas of Mathematics, I met people who share similar interests. Higher level courses were especially interesting, with a wider range of courses available. I was also able to pick and choose courses according to my own interests. Classes were smaller and became more interactive which allowed ideas to be bounced around.

I'm currently working as an Actuarial Analyst at Suncorp. Mathematical concepts that I learnt at university appear unexpectedly at work, and having a solid understanding of them from my time at UNSW is invaluable. Although not everything you learn in university will come in use directly at work, the ways I learnt to approach issues and how to tackle problems methodically are the most important skills I have gained.

MIRIAM GREENBAUM
BACHELOR OF SCIENCE (ADVANCED MATHEMATICS)/COMMERCE – HONS APPLIED MATHEMATICS

Math was my favourite subject at school, and had been my entire life, so I decided to study mathematics and combine it in a double degree with commerce. It is by far the best education I have made to date.

In the earlier years of my degree, I was exposed to a broad range of mathematical concepts. In the upper years, I have then been able to choose which part of math really interested me and hone in on my skills by completing focused subjects in the area. The small classes and dedicated time with the academics meant that I was always able to achieve a deeper level of understanding, even with the trickier concepts.

Completing Honours in maths gave me the opportunity to really dive deep into a topic that I was passionate about. After reaching out to an industry contact, I was able to obtain a dataset and choose my own Honours topic. Throughout the thesis year, I received amazing support from my supervisor, who always had time to sit with me and not just answer tricky problems along the way. The logic and problem-solving skills I acquired throughout my degree gave me the ability to begin in whatever role I wanted after graduating, and I chose to begin as a Management Consultant at Ernst & Young.
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 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, Commonwealth Bank and SIRCA.

We are proud to be the home of many leading mathematicians including Fellow of the Royal Society, Trevor McDougall, and past President of the International Council for Industrial and Applied Mathematics, Ian Sloan.

Undergraduate Studies in Mathematics and Statistics

BACHELOR OF SCIENCE (ADVANCED MATHEMATICS) (HONOURS)

The Advanced Mathematics degree is aimed at high achieving students who wish to specialise in mathematics as a basis for the increasing range of quantitative careers in areas such as finance, environmental modelling and research. This four-year degree combines advanced coursework with an Honours-level research project in one of the available areas of study. UNSW offers mathematics students advanced facilities combined with innovative teaching. This program has been designed to cater for the specific abilities and interests of talented students with a superior ATAR.

APPROVED MAJORS IN THE BACHELOR OF SCIENCE (ADVANCED MATHEMATICS) (HONOURS) PROGRAM ARE:

APPLIED MATHEMATICS

The development and implementation of methods to understand and predict real world problems and improve their outcomes. Mathematical methods and scales are employed to find solutions not only for technical and industrial problems, but also for social, biomimetic and economic problems.

PURE MATHEMATICS

The foundation of all Mathematics. It is concerned with discovering the patterns and structures that underlie wide areas of Mathematics. Although motivated more by a search for beauty and symmetry, this area of Mathematics has led to major advances in many areas of science and technology.

ADVANCED STATISTICS

The methodology for drawing conclusions from data – estimating the present, predicting the future and making decisions in the face of uncertainty. Modern Statistics is a rapidly evolving science in which revolutions in technology present exciting new opportunities for collection and analysis of huge and complex data sets.

Program: Bachelor of Science

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<th>UNSW Program Code</th>
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<th>Entry Requirements</th>
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MATHEMATICS AND STATISTICS CAN ALSO BE STUDIED WITHIN THE FOLLOWING DEGREE PROGRAMS, AMONGST OTHERS:

- Bachelor of Data Science (Decision Science) 494100 28880 3 years full time 2019 Guaranteed Entry: 89.00
- Bachelor of Data Science (Information Technology) 494101 28881 3 years full time 2019 Guaranteed Entry: 89.00
- Bachelor of Data Science (Computer Science) 494102 28882 3 years full time 2019 Guaranteed Entry: 89.00

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. Graduates have worked in areas such as finance, environmental modelling and research, the military, as well as numerous other applications.

Graduates of Mathematics and Statistics are employed by a wide range of companies and organisations including Google, Google, The Reserve Bank, The Australian Bureau of Statistics, Weatherzone, Commonwealth Bank, SIRCA, and others throughout the world.

For further information on careers within Mathematics and Statistics, visit our careers page at math.unsw.edu.au/careers/careers.htm.

Mathematics and Statistics:

- Undergraduate Studies in Industrial and Applied Mathematics, Ian Sloan.
- Mathematics and 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 teaching and research.
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Data Science:

- Data Forensics: analysing patterns in large data sets to find the “needles in the haystack” of fraudulent or terrorist activity.
- Data Management: ensuring accuracy and accessibility of organisations’ data workloads.
- Data Modelling: understanding massive computer models that predict changes in weather climates and ocean currents.

Career Opportunities:

- Data Science: designing complex games to enhance correct probabilities and accurate simulations.
- Data Management: ensuring accuracy and accessibility of organisations’ data workloads.
- Data Modelling: understanding massive computer models that predict changes in weather climates and ocean currents.

Career Opportunities:

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