

Mātauranga Pāngarau Undergraduate Mathematics

Mathematics has many faces. It can be challenging, powerful, fascinating, even mysterious – but above all it is useful. Wherever problems need to be solved, mathematics has a role to play.

About the department

The Department of Mathematics has an excellent reputation. Our staff include world leaders in many areas of theoretical and applied mathematics. We are known for high-quality teaching and we have a strong focus on student wellbeing and achievement.

Our degrees and diplomas enjoy widespread recognition from employers in New Zealand and throughout the world. Staff in the department serve their communities by being involved in a wide range of projects and organisations.

Whatever your background or interests in Mathematics may be, we welcome you to our department. If you need assistance with course advice, please contact us and our friendly staff will help you. We look forward to meeting you.

What you will learn

Mathematics makes essential contributions to the biological, information and physical sciences, economics, engineering and finance, but can also be applied to communications, linguistics and genetics. As a Mathematics student you'll study aspects of both pure and applied mathematics, and you'll be exposed to critical and meta-mathematical thinking: skills that are highly valued by employers.

Prerequisites

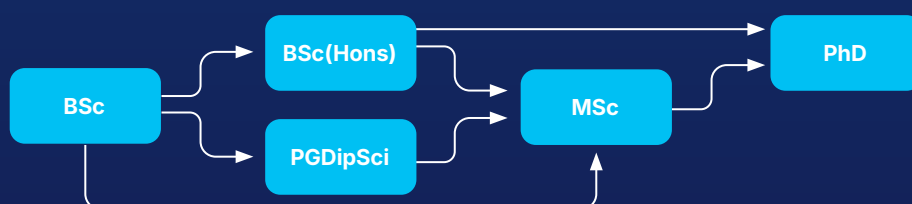
The Department of Mathematics would be glad to have you in our courses, no matter what you've studied in high school. However, if you're keen to jump straight in to some of our more advanced first-year courses, we recommend you take some calculus before starting your university studies. In particular, we recommend Year 13 differentiation and integration.

Choosing a subject

With so many options it's sometimes hard to choose what you want to study, but we've got you covered. You can study a double major with our Bachelor of Science to gain a broader base of skills and knowledge.

Complementary majors include:

- › Computer Science
- › Information and Technology Management
- › Logic and Computation
- › Physics
- › Statistics



Career opportunities

A versatile degree for many roles

Mathematics is part of almost every sphere of knowledge and activity in the modern world because it is the language through which nature, technology and reality are described.

Studying Mathematics provides you with the skills and frameworks needed to tackle complex problems in an ever-changing world. Your analytical abilities, comprehension of abstract concepts, and creative thinking skills will improve. These skills are highly valued in business, financial, and technical roles, and in positions of leadership and management.

Mathematics is also an ideal supporting subject for many other disciplines. Your future prospects and employability in other fields are enhanced by significant mathematical content in your degree.

Graduating with a Mathematics degree opens up career opportunities for you in industry or Government, teaching, computer development and programming, systems analysis, operations research and many other fields.

Our Mathematics graduates have been employed in the following jobs:

- › Training coordinator, Air New Zealand
- › Mathematician, Jane Street
- › Data analyst, IPSOS NZ
- › Director of Business Intelligence, NZ Trade and Enterprise
- › Mathematical Software Group, National Institute of Science and Technology (USA)
- › Consultant, Ernst and Young
- › Account executive, Willis Towers Watson
- › General Manager, Data and Analytics, Fonterra
- › Analyst, New Zealand Treasury
- › Finance officer, Te Kura
- › Lecturer/Professor
- › Actuarial analyst, Suncorp NZ

What you can study

Topics include:

- › Combinatorics and Algebra
- › Geometry and Topology
- › Differential Equations
- › Real and Complex Analysis
- › Mathematics Education
- › Mathematical Modelling

What skills can I gain?

- › An in-depth understanding of fundamental mathematical concepts
- › Analytical, computational and modelling skills
- › Programming skills
- › Problem-solving and critical-thinking skills



Find out more about how your degree will be structured and what courses you need to take at

auckland.ac.nz/science/ug-mathematics

Applications close on 8 December.



"Having that relationship with the tutors made me fearless when it came to learning – it helped me take more control of my study. I succeeded because I realised that fear is the only thing that stops you from growing."

Halaevalu Tu'ipulotu
BSc double major in Mathematics and Statistics

Kuhua ki tō mātou hāpori, ā, Kimihia tōu Pūtaiao.
Join our community and find your Science.



Disclaimer: The information in this document is a general guide only for students and subject to alteration. All students enrolling at the University of Auckland must consult its official Calendar, to ensure that they are aware of and comply with all regulations, requirements and policies. [2025]

Have any questions?
Contact the Student Hub

auckland.ac.nz/student-hubs