

College of Humanities and Sciences



Bachelor of Science (Honours) in Mathematics

Department of Mathematics Faculty of Science College of Humanities and Sciences

NUS Mathematics

Mathematics is everywhere.
Search engines, rational drug
design, earthquake prediction
– these are all underpinned by
mathematical disciplines such
as linear algebra, differential
equations and probabilities. In
sum – if you are interested in
solving problems in science,
engineering and technology,
a strong grounding in
mathematics is essential.

At NUS Mathematics, you will work with numbers, discrete and continuous quantities, geometric figures and images in all their generalities.
Ranging from the most abstract and fundamental

theories in pure mathematics – to the most concrete methods and practical algorithms in applied mathematics. The mathematical fundamentals you learn also count towards your pursuit of quantitative disciplines at the postgraduate level, including statistics, economics and management science.

Under the **College of Humanities and Sciences (CHS)**, majoring in mathematics is not a one-size-fits-all formula. You can choose to augment your degree with a second major or minor of your choice – from any of the courses offered by CHS. And with CHS' distinctive Common Curriculum, you are on your way to becoming a systematic and analytical thinker and problem-solver.



Why NUS Mathematics?



Established faculty

We are the largest department in the Faculty of Science – and **Asia top** ranked Mathematics department.

Our professors have expertise in contemporary mathematical research, plus a passion for sharing their knowledge with you.

QS World University Rankings by Subject 2024: Mathematics



Versatile skill set

With mathematics underpinning many science, technology, engineering and mathematics (STEM) fields – such as physics, computer science and technology – you have **numerous and diverse options**. A strong knowledge of mathematical fundamentals enables you to branch out into diverse fields of learning and industry, wherever your interest takes you.



Academic depth

For those with strong aptitude and passion, the **Special Programme in Mathematics (SPM)** offers courses in foundational mathematics taught at greater depth and sophistication. Through SPM, you will build a firm foundation for graduate studies in mathematics, and careers in mathematical science.



Career opportunities

Mathematics graduates are highly sought after for their **analytical/logical reasoning skills and numerical literacy** – skills essential to identifying and solving challenging problems in any field. Mathematicians are ideal for positions in accountancy, financial services and insurance, but also areas like technology, business, education, government and operations research.







Academic Programmes



Primary Major in Mathematics **Specialisation** in

- Operations Research and Data Analytics
- Pure Mathematics



Second Major in Mathematics



Minor in Mathematics



Special Programme in Mathematics



Double Degree Programme in Mathematics and Computer Science



Research Opportunities

If you are keen to explore mathematical areas and topics of personal interest, you can participate in the **Undergraduate Research Opportunities Programme in Science (UROPS)**, or pursue a
Capstone Project.

Our research areas include:

- algebra and number theory
- differential equations and dynamical systems
- geometry and topology
- mathematical logic and theoretical computer science
- scientific computing and optimisation
- mathematical theory of machine learning



"My science training equipped me with useful life skills such as resilience, adaptability, effective stakeholder communications and business acumen."

- **Dr Zenton Goh**, CEO, Cadi Scientific Pte Ltd BSc (Hons) in Mathematics (1992)



"The rigour of mathematics training has fresh relevance in a time when Internetenabled social communities are growing – as it can be applied to solve problems and optimise solutions."

 Leonard Loo, Speech Algorithm Architect, BIGO Technology Pte Ltd
 BSc (Hons) in Applied Mathematics (2016); MSc in Applied Mathematics (2017)





Admission Requirements

Primary Major in Mathematics Primary Major in Mathematics with Specialisation in Operations Research and Data Analytics Specialisation in Pure Mathematics Second Major in Mathematics Minor in Mathematics A good H2 pass (or equivalent) in Mathematics/Further Mathematics Mathematics/Further Mathematics

For applicants without H2 Mathematics/Further Mathematics, simply read the bridging course MA1301/MA1301X Introductory Mathematics.

