



# A quick guide to undergraduate Computational Biology

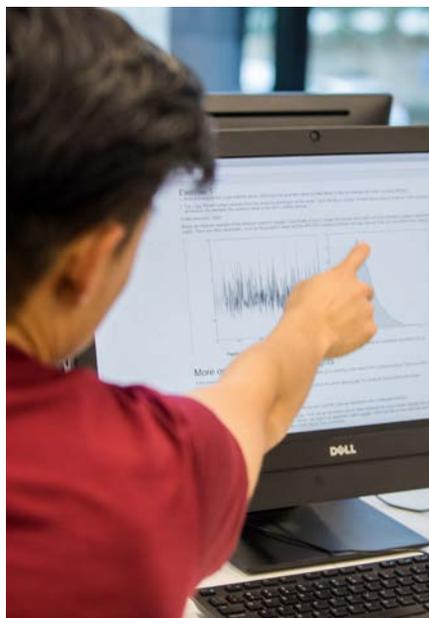
Biologists and life scientists now routinely require skills in computation and complex data analysis in order to conduct their research and apply the results.

Computational Biology is designed to equip you with fundamental knowledge and skills across biology, computer science, mathematics and statistics in order to develop computational biology, genetics and bioinformatics skill sets.

Studying Computational Biology at the University of Auckland means you'll be uniquely placed to learn from leading experts in the field, and exploit the opportunities available at a university ranked first in New Zealand for biology, and computer science and information systems\*.

There are many routes into a degree in Computational Biology. If you've done any one of these subjects at high school, you will be well-equipped to get started: biology, chemistry, computer science, mathematics, statistics, physics.

\*[science.auckland.ac.nz/excellence](http://science.auckland.ac.nz/excellence)



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**Computational Biology:**  
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# What you'll study in your Computational Biology degree



## BAdvSci(Hons)

Topics you can study include:

- Algorithms and machine learning
- Biodiversity, ecology and evolution
- Genetics
- Statistical modelling
- Software development

**Do research  
with an  
academic  
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Find out how your degree will be structured and what courses you need to take at [science.auckland.ac.nz/ug-comp-biology](https://science.auckland.ac.nz/ug-comp-biology)

## Careers in Computational Biology

### A new biology for the digital age

Specialising in Computational Biology can open up opportunities in both scientific research and industry in the biomedical and life sciences sectors, including all areas of biology from horticulture and agriculture through molecular biology and genome biology to ecology, marine biology and medicine.

You'll develop expertise in computer science, statistics and data analysis, which provides you with the core skills necessary for a career in computational biology, but are also transferable to careers in software design, software development and data analysis, especially where some knowledge of the life sciences is useful.

You could find yourself modelling complex human diseases, analysing large amounts of genomic

data, or creating computational models for gene editing in commercial species.

Your ability to develop algorithms, statistical methods and models to understand biological systems will give you cutting-edge skills to tackle the deluge of big data in the digital age.

**Jobs for our Computational Biology graduates include:**

- Bioinformatician
- Biotechnology consultant
- Data scientist
- Environmental scientist
- Academic researcher
- Pharmaceutical technician
- Scientific adviser
- Software designer



## Jeffrey Zhang

**Bachelor of Science, majoring in Computer Science.**

*As a Computer Science student, Jeffrey talks about his interest in Computational Biology.*

*"I have been amazed by mathematics and physics since I was young. I wanted to pursue a subject that would let me learn more about these fundamental ideas at a deeper level, which led me to study Computer Science.*

*"I enjoy solving logical problems and find the challenges in my subject fascinating. Not only are they important problems with huge implications, but I also like that they are extremely mathematically grounded, yet make intuitive sense.*

*"Computational Biology leverages the power of mathematical models and efficiency of computer science to tackle problems that have interested biologists for centuries. In the current era of big data and never-before-seen computational power, there is much to learn.*

*"The Computational Biology specialisation is novel and there are many disruptions in this field due to the rise of big data and scientific technology.*

*"I wanted to conduct high calibre research, so I am looking forward to continuing my studies at a postgraduate level and pushing our collective knowledge of this field forward."*

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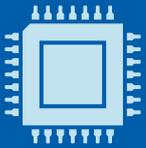
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Applications close on 8 December.

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## A quick guide to undergraduate **Computer Science**

Computing technology permeates our lives, and with that comes the demand for specialists to imagine, develop and maintain that technology. As a Computer Science student at the University of Auckland, you'll be prepared to meet that demand.

Studying Computer Science gives you an understanding of the conceptual building blocks of computers, software, and communications between computers. You'll tackle topics as diverse as algorithms, robotics, programming languages and networks, and you'll develop sought-after skills in logical thinking, problem solving and analysis.

You don't need to have taken any particular subject at high school to study Computer Science with us. Digital technologies, mathematics and physics provide helpful background knowledge, but they're not essential.

### Can't choose which subject to study?

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:

- [Information and Technology Management](#)
- [Logic and Computation](#)
- [Mathematics](#)
- [Physics](#)
- [Psychology](#)
- [Statistics](#)

Explore and discover everything you need to know about studying  
**Computer Science:**  
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at once** 

**Our subject  
is ranked  
#1 in  
New Zealand**

QS World University Rankings  
by Subject 2020

**#1**

**Computer Science and  
Information Systems**

# What you'll study in your Computer Science degree

## BSc

Topics you can study include:

- Software fundamentals
- Database systems
- Artificial intelligence
- Human-computer interaction
- Computer graphics

## BAdvSci(Hons)

Topics you can study include:

- Cybersecurity and cryptography
- Advanced design and analysis of algorithms
- Global data communications
- Datamining and machine learning
- Web, mobile and enterprise computing

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capstone  
course**



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## Careers in Computer Science

### Be everywhere in today's world

Computing technology has become an ever-growing part of human life, affecting many aspects of our day.

Computers are indispensable in fields such as education, medicine, commerce and engineering – as well as leisure. We can't imagine what we would do without them, and the innovations just keep on coming.

As the demand for new technology continues to grow and change, Computer Science is always at the forefront of developments and industry is keen to employ our graduates.

By studying Computer Science, you may have an impact on how our society advances by developing and maintaining software and systems.

You can look forward to working in many exciting areas, in an ever-widening variety of roles.

**Our Computer Science graduates have been employed in the following jobs:**

- Software engineer, Electronic Arts
- Application engineer, Datacom Systems Ltd
- Developer (Dynamics AX), UXC Eclipse
- Agile architect, Vocus Group NZ
- Technical consultant, Davanti Consulting
- Product development engineer, Fisher & Paykel Healthcare
- Linux system administrator, Solarix Networks Ltd
- Security analyst, SKYCITY Entertainment Group
- Software engineer, Microsoft



## Aditi Sherekar

Bachelor of Science, majoring in Computer Science and Psychology.

*"After studying elsewhere in my first year, I decided to move to the University of Auckland. I became really interested in neurology, which led me to taking Psychology as a major. In my second year of my BSc I decided to add Computer Science as another major because I wanted to take my degree a step further to open up more opportunities when I complete my studies.*

*"The motivation for adding a Computer Science major came from one of my first-year General Education Computer Science courses – I found the coding aspect intriguing. I believe the combination of these majors is unique, and beneficial to my future career prospects.*

*"Both healthcare and technology are growing industries in today's world. After completing my degree I'd like to use technology to make a difference in healthcare. At this point in time it needs extra attention and therefore I would love the opportunity to help make people's lives better and easier.*

*"I thoroughly appreciate the amount of help that's provided. The guidance and support I receive have encouraged me to strive for high achievement throughout my degree. I received a Certificate of Achievement for getting high grades in Computer Science, which I'm really proud of."*

Have any questions? Our Science Advisers are happy to help

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# A quick guide to undergraduate Data Science

Data scientists drive innovation and improve success in many areas: start-ups and established businesses, Government, science, media, broadcast and cultural events.

Both Computer Science and Statistics make a significant contribution to the Data Science specialisation. The University of Auckland is ranked first in New Zealand for statistics and operational research\*.

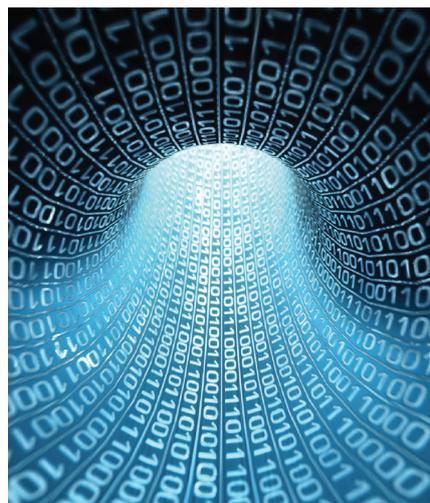
Studying Data Science at the University of Auckland exposes you to the latest research and thinking in areas such as processing data, managing databases, extracting information and value from data, and predictive modelling.

Data Science students develop an enthusiasm for ideas, discovery and learning, and intellectual curiosity – do you have what it takes to turn data into information, knowledge and innovative products?

You don't need to have taken any particular subject at high school to study Data Science with us. Digital technologies, mathematics and statistics provide helpful background knowledge,

but they're not essential.

\*QS World University Rankings by Subject 2019



Explore and discover everything you need to know about studying Data Science:

[science.auckland.ac.nz/ug-data-sci](http://science.auckland.ac.nz/ug-data-sci)



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is ranked  
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New Zealand

QS World University Rankings  
by Subject 2020

**#1**

Statistics and  
Operational Research

# What you'll study in your Data Science degree

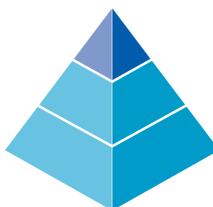


## BSc

Topics you can study include:

- Data analysis and data technologies
- Database systems
- Programming and algorithmics
- Artificial intelligence
- Statistical modelling and computing

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capstone  
course**



Find out how your degree will be structured and what courses you need to take at [science.auckland.ac.nz/ug-data-sci](http://science.auckland.ac.nz/ug-data-sci)



## Ruokai Wang

Bachelor of Science in Data Science.

*"I like the foundation that Data Science provides. The programme blends together a well-balanced mix of Computer Science and Statistics, which are core components in machine learning and artificial intelligence."*

*"There are high-quality lecturers at the University who are passionate about helping students to learn. There is so much to be gained from them as long as you are engaged and willing to ask the right questions."*

*"I would like to develop my skills as a data analyst and one day undertake further study to become a data scientist. I hope to be involved in the development and application of machine learning to drive business and improve healthcare."*

*"The University has been a great hub to meet new people, learn from world-class lecturers and also learn from other like-minded people in my field. A few friends and I founded the University of Auckland Data Science Club, which has been an amazing way to connect with other students passionate about data and what it can do for us."*

*"Together we've received funding from various University groups, managed to get tech CEOs, start-ups and data scientists to come and speak to us, and held workshops so that we can learn from each other and help develop our skills. It really is an exciting time to get into this field!"*

## Careers in Data Science

### A rapidly growing field

Data Science is an area of study which gives individuals the ability to manage and analyse big data, and drive innovation in organisations across all industries.

The last decade has seen an explosion in the amount of data available. It has evolved into one of the most important areas for many employers. The ability to turn data into useful insights and innovative products often separates success from failure.

Currently there is an unmet demand for graduates in the field of data science. As a data scientist, you will have the skill set to drive innovation and affect the success of a diverse range of businesses and organisations.

There are a range of career opportunities available to you as you become a responsible citizen in a data-rich world.

Jobs for our Data Science graduates include:

- Data analyst
- Data scientist
- Database administrator
- Developer
- Information officer
- Insight manager
- Statistician

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A quick guide to undergraduate

# Geographic Information Science

If you've ever dropped a pin into Google maps, or found the shortest route using the public transport network, then you've engaged with Geographic Information Science (GIScience). GIScience is the study of the data structures and techniques used to capture, process and visualise geographic information.

As a GIScience student you'll be taught how to use data collected by satellites and drones, government-sourced data, and social media platforms to examine a wide range of social and natural processes. You'll use modelling techniques to analyse data intensive contexts, and you'll try to answer questions like: What is the relationship between urban inequality and disease? What are the effects of sea level rise on coastal areas? How do resources flow across a busy transportation system?

You don't need a background in geography or computing at high school to study Geographic Information Science with us. The major embraces the latest GIS technologies and ways of thinking to enable you to apply your knowledge from a range of subjects.

## Can't choose which subject to study?

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](#)

[Earth Science](#)

[Environment Science](#)

[Geography](#)

[Marine Science](#)

[Statistics](#)

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# What you'll study in your Geographic Information Science degree

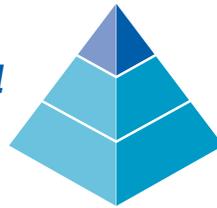


## BSc

Topics you can study include:

- Spatial thinking
- Geography of the human environment
- Earth surface processes and landforms
- Programming techniques
- Remote sensing

INCLUDES A  
**student-led  
capstone  
course**



Find out how your degree will be structured and what courses you need to take at [science.auckland.ac.nz/ug-geo-info](http://science.auckland.ac.nz/ug-geo-info)



## ChenChen Liu

**Bachelor of Science majoring in Environmental Science and Marine Science.**

*ChenChen talks about her experience of using Geographic Information Science (GIS).*

*"I enjoy using GIS through many different kinds of software tools like ArcMap, ArcGIS and ArcScene to solve geographic and environmental problems.*

*"One of my favourite field trips was when we investigated the topography of the islands near Waiheke, and conducted water quality inspection as well as statistics on the species and quantity of marine organisms in the sea areas around the islands.*

*"Then our study group visited the island to carry out geological, hydrological, mapping, geophysical exploration, and distributed questionnaires to collect the suggestions and views of the indigenous people on the establishment of marine protected areas.*

*"We collected and reviewed materials, used GIS and remote sensing for statistical modelling and made the overall model of protected areas. This amazing experience taught me how to plan and generate research.*

*"The application of GIS is widely used to analyse and process spatial information that can map and analyse the phenomena and events that exist on the earth. Deforestation, coastal wetland degradation and habitat loss can all be seen clearly by using GIS technology. It can also be used in predicting future environmental conditions.*

## Careers in Geographic Information Science

### A career for a rapidly changing world

It is estimated that 80% of data collected has some spatial component, whether it's a city name, a street address or even a precise set of co-ordinates.

Professionals in a wide range of fields use GIS tools to turn geographic data into maps, tables and other kinds of information needed to make informed decisions.

In a rapidly changing world, detailed, up-to-date geographic data are indispensable for governance, for commerce, and for research intended to improve our understanding of social and environmental systems.

As a GIScience graduate you'll possess sound theoretical knowledge and be able to demonstrate

independent technical proficiency across the social, ecological and physical domains of GIScience application.

You'll be well prepared to enter the workforce in both public and private sectors, or pursue postgraduate study.

**Jobs related to Geographic information Science include:**

- Analyst
- Cartographer
- Climate scientist
- Conservationist
- Geographer
- Geospatial database developer
- Mapping and surveying technician

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A quick guide to undergraduate

# Information and Technology Management

If you're keen to combine computing skills with current business practice, then Information and Technology Management is the ideal major for you. You'll study how technology and information management are applied in the commercial sector, focusing on the analysis and design of systems for businesses.

As an Information and Technology Management student you'll take courses that allow you to understand information management from a systems, data handling, and process perspective. Studying Information and Technology Management at the University of Auckland means you'll learn in an environment that is ranked first in New Zealand for computer science and information systems, which includes Information and Technology Management\*.

You don't have to have studied any sort of computing at high school to be able to study Information and Technology Management with us. Digital technologies, physics, mathematics and/or statistics provide helpful background knowledge, but they're not essential.

\*[science.auckland.ac.nz/excellence](http://science.auckland.ac.nz/excellence)

## Can't choose which subject to study?

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](#)
- [Logic and Computation](#)
- [Mathematics](#)
- [Physics](#)
- [Psychology](#)
- [Statistics](#)

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# What you'll study in your Information and Technology Management degree



## BSc

Topics you can study include:

- Analysis of business systems
- Business intelligence
- Data communications
- Database systems
- Information security
- Information systems design

INCLUDES A

**student-led  
capstone  
course**



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## Careers in Information and Technology Management

### An ever-widening variety of roles

Information and Technology Management is a prime force driving the software and systems of the modern online realm – and one of the fastest growing fields in the world.

With a major in Information and Technology Management, an exciting range of career opportunities is open to you in an array of industries.

As a graduate you could be involved with how information and communications technology can be used to achieve strategic goals.

You will be equipped to develop creative and innovative solutions, using cutting-edge products to resolve important problems in government, businesses and non-profit organisations.

Our Information and Technology Management graduates have been employed in the following jobs:

- Customer support and training representative, Cin7
- IT advisor, KPMG New Zealand
- Technical consultant, Olympic Software NZ Ltd
- Enterprise risk services consultant, Deloitte Limited
- CRM developer, New Zealand Tertiary College

Other positions and roles include:

- Application developer
- Infrastructure architect
- Database administrator



## Akali Reynolds

Graduate Diploma in Computer Science.

As a Computer Science student, Akali talks about her interest in Information and Technology Management.

*"Technology is the fastest growing industry worldwide, calling for an increasing demand for professionals to provide technological services. A degree in technology is highly regarded by employers, offering many possibilities.*

*"I wanted to study a field that will lead to a rewarding career; one that is intellectually fulfilling and offers exciting possibilities to work on innovative solutions.*

*"I chose the University of Auckland due to its strong reputation as New Zealand's highest ranking University in quality of education and graduate employability.*

*"I love learning about a variety of technological concepts; from the basic bits and bytes of computing logic, all the way to how the user experiences the computer interface and design.*

*"My courses provide me with in-depth, interesting insight into computing systems, programming techniques, networking, data structures and much more.*

*"I would absolutely recommend Information and Technology Management as it is fascinating to learn what goes behind the systems we use every day. The lecturers are passionate and helpful, and the educational resources and guidance provided for students in the department are excellent."*

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## A quick guide to undergraduate **Logic and Computation**

Do you have a flexible mind capable of creative, speculative thought, precise calculation and practical problem solving? If you're interested in computer science, linguistics and philosophy, a major in Logic and Computation could be the ideal choice for you.

This major is relevant both to theoretical philosophy and the foundations of computer science, and to technological applications in artificial intelligence and speech recognition. You'll have the chance to gain sound practical knowledge of programming and logical analysis, and to develop the conceptual, analytical and communication skills needed for a deeper theoretical understanding of the discipline. You'll also study the philosophical and linguistic issues at the root of the science of computation. Logic and Computation is also available as a major in the Bachelor of Arts (BA).

You don't have to have studied any sort of computing at high school to be able to study Logic and Computation with us. Digital technologies, physics, mathematics and/or statistics provide helpful background knowledge, but they're not essential.

### Can't choose which subject to study?

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](#)
- [Mathematics](#)
- [Physics](#)
- [Psychology](#)
- [Statistics](#)

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[science.auckland.ac.nz/ug-logic-computation](https://science.auckland.ac.nz/ug-logic-computation)

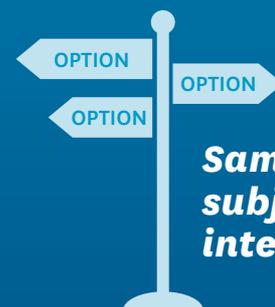


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# What you'll study in your Logic and Computation degree



## BSc

Topics you can study include:

- Algorithms
- Artificial intelligence
- Critical thinking
- Grammar and syntax
- Logic and rationality
- Pragmatics

INCLUDES A

## student-led capstone course



Find out how your degree will be structured and what courses you need to take at [science.auckland.ac.nz/ug-logic-computation](https://www.science.auckland.ac.nz/ug-logic-computation)



## Jack Lin

**Bachelor of Science/Bachelor of Commerce conjoint, majoring in Computer Science, Logic and Computation and Information Systems.**

*"I decided to major in Logic and Computation because it complements my other major, Computer Science, by adding the logic and thought process behind it. It also challenges my everyday thinking, which in turn allows me to grow as a person.*

*"You get the best of both worlds in Logic and Computation. Logic falls under philosophy which means I get exposure to the Arts side of things, whereas computation falls under Science where it's all about algorithms and maths.*

*"Taking courses from two different departments involves a lot of problem solving and proving things. It's cool to find out why certain things are the way they are now and how we can prove certain things in the world are logically true.*

*"This subject is unique. Once you have studied it, you won't forget it because it not only teaches you something practical, but also how to approach and how to solve problems.*

*"My favourite part about studying at University is being able to choose from a wide range of courses not just related to my majors but also my wider degree. I've also met a huge variety of people all from different backgrounds by participating in a lot of the social clubs. I've made friends that could potentially walk with me for the rest of my life."*

## Careers in Logic and Computation

### A rare combination of skills

Can you imagine life without your smartphone, your computer, or your gaming console? Computing technology is everywhere in everyday life. Every industry is becoming more and more dependent on computing technology and the market for experts in that field continues to expand and diversify.

Logic and Computation provides the link between theoretical thinking and real-world problems. As a graduate you'll acquire computing and programming knowledge, analytical and critical thinking, communication and problem-solving skills that you can apply to investigating complex problems.

With this mixture of practical and theoretical expertise from both the arts and the sciences,

you'll leave prepared for a wide range of careers. This is a rare and versatile combination of abilities that is highly valued and sought after in the business world.

**Jobs related to Logic and Computation include:**

- Business, systems or security analyst
- Cloud systems or software engineer
- Computer consultant
- Data, e-commerce solutions, software, information architect
- Database developer or administrator
- Digital designer
- Front end, game, systems or web developer

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## Kuhua ki tō mātou hapori, ā, Kimihia tōu Pūtaiao.

### Join our community and find your Science.

Applications close on 8 December.

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# A quick guide to 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. The University of Auckland is ranked first in New Zealand, and in the top 100 in the world, for mathematics\*.

\*www.science.auckland.ac.nz/excellence

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.

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.

## Can't choose which subject to study?

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](#)
- [Geophysics](#)
- [Logic and Computation](#)
- [Physics](#)
- [Statistics](#)

Explore and discover everything you need to know about studying Mathematics:  
[science.auckland.ac.nz/ug-mathematics](http://science.auckland.ac.nz/ug-mathematics)



SCIENCE



WE'RE NEW ZEALAND'S  
**Leading Faculty of Science**

QS World University Rankings by Subject 2020

AVAILABLE IN:

- ✓ **Bachelor of Science (BSc)**
- ✓ **Bachelor of Advanced Science (Honours) (BAdvSci(Hons))**

CONJOINT A BSc OR A BAdvSci(HONS)  
TO STUDY

**2 degrees at once** 

**Our subject is ranked in the TOP 100 worldwide**

QS World University Rankings by Subject 2020

TOP 100  
in the world



Mathematics

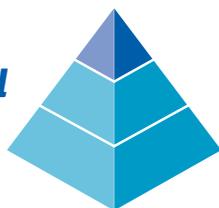
# What you'll study in your Mathematics degree

## BSc

You can keep your Mathematics major general, or you can follow one of these pathways:

- **Applied Mathematics:** Methods to link together creative problem-solving skills with computational techniques, that let us understand and solve real-life problems.
- **Pure Mathematics:** Abstract concepts, and the development of analytical, logical and creative thinking, and problem-solving skills.

INCLUDES A  
**student-led  
capstone  
course**



## BAdvSci(Hons)

Topics you can study include:

- Combinatorics
- Differential equations
- Complex analysis
- Mathematics education
- Mathematical modelling
- Functional analysis

**Do research  
with an  
academic  
mentor**



Find out how your degree will be structured and what courses you need to take at [science.auckland.ac.nz/ug-mathematics](http://science.auckland.ac.nz/ug-mathematics)

## Careers in Mathematics

### 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 framework 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

- Account executive, Willis Towers Watson
- Bank officer, ANZ Bank NZ Ltd
- Tester, Planit Software Testing (New Zealand)
- Analyst, New Zealand Treasury
- Finance officer, Te Kura
- Actuarial analyst, Suncorp NZ
- Training coordinator, Air New Zealand
- Table games analyst, Galaxy Casino
- Intermediate data analyst, IPSOS NZ



## Joseph Peni

**Bachelor of Science majoring in  
Chemistry and Applied Mathematics  
– Phlebotomist**

*"I work part-time as a qualified phlebotomist at Labtests in Mangere, where I carry out a variety of investigations as required by GPs for their patients – from blood samples to urine and faeces samples, and skin scrapings to sputum samples.*

*"I also continue to work part-time as a Tuākana tutor for Chemistry and Maths at the University – a role that I am particularly passionate about and, alongside my phlebotomist role, enables me to encounter different work environments on a daily basis.*

*"I first became a Tuākana tutor during the second year of my degree, for the core maths course MATHS108. I continued in this role for eight years, and in 2011 I joined the Tuākana team in Chemical Sciences as both a tutor and a lab supervisor for Stage 1 Chemistry courses.*

*"My favourite part of being a tutor has been the fact that I can help my younger Māori and Pacific peers, and help them to understand key concepts that they at first found difficult. I get great satisfaction when I see a student walk out the door with a better understanding of maths or chemistry than what they had when they arrived.*

*"It's also been a great privilege to cross paths with some incredible lecturers and tutors in both Maths and Chemistry, who have given me the opportunity to not only broaden my knowledge but give back in some ways to my community."*

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## A quick guide to undergraduate **Statistics**

Are you interested in looking critically at numerical information without being misled? Do you want to be able to make sense of data, and use it to solve problems? Statistics is the human side of the computer revolution, and you could be part of it.

As a Statistics student you'll study how to ask the right questions, how to collect and analyse data, and how to present information in meaningful ways. You'll be able to choose whether you keep your major general, or whether you study one of two dedicated pathways: Applied Statistics, or Statistics and Probability.

Studying Statistics at the University of Auckland means you'll be studying a subject that is ranked first in New Zealand, and in the top 100 worldwide\*.

You don't have to have taken statistics or mathematics at high school to study Statistics with us – we welcome all students! However, high school statistics and/or mathematics provide helpful background knowledge. If you're interested in studying our probability courses you'll find it useful to have studied some differentiation at high school.

\*[science.auckland.ac.nz/excellence](http://science.auckland.ac.nz/excellence)

**Explore and discover everything you need to know about studying Statistics:**  
[science.auckland.ac.nz/ug-statistics](http://science.auckland.ac.nz/ug-statistics)



### Can't choose which subject to study?

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.

**Statistics complements all other Bachelor of Science majors, but it matches particularly well with:**

- [Computer Science](#)
- [Information and Technology Management](#)
- [Logic and Computation](#)
- [Mathematics](#)
- [Physics](#)
- [Psychology](#)



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Statistics



**SCIENCE**

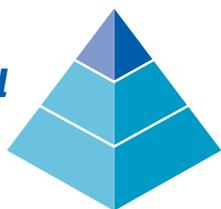
# What you'll study in your Statistics degree

## BSc

You can choose to keep your Statistics major general, or you can choose one of these pathways:

- **Applied Statistics:** Choose this pathway if you're mainly interested in the practice of statistics.
- **Statistics and Probability:** Choose this pathway if you're interested in both the application of statistics and the theory underlying it.

INCLUDES A  
**student-led  
capstone  
course**



## BAdvSci(Hons)

Topics you can study include:

- Applied statistics
- Data analysis
- Mathematical statistics
- Probability theory

**Do research  
with an  
academic  
mentor**



Find out how your degree will be structured and what courses you need to take at [science.auckland.ac.nz/ug-statistics](https://science.auckland.ac.nz/ug-statistics)

## Careers in Statistics

### A navigator in the information age

We live in an increasingly data-rich and digital world. Computers allow us to collect and store information in quantities that previously would not even have been dreamt of. Understanding statistics helps you understand our world, as it is statistics that allows us to extract meaning from seemingly incomprehensible data.

In one week a practicing statistician can help to investigate a case of disputed authorship, design an experiment to evaluate the effects of a new treatment for a disease, analyse a set of data gathered by an ecologist, and help a freight carrier to study work processes to find ways to make the company more profitable.

Statistics applies to almost any field; this is why some training in statistics can help make you more effective and more employable, regardless

of the career direction you choose. Whatever field of statistics you specialise in, a Statistics degree will be an important step in opening up new and exciting career opportunities for you.

**Our Statistics graduates have been employed in the following jobs:**

- Network planning analyst, Air New Zealand
- Judge's clerk, Ministry of Justice
- Analyst, IAG NZ Ltd
- Administrator, Homerit PVC-U Windows
- Co-founder and CEO, Bot the Builder
- Database administrator, Ottogi New Zealand
- Analyst, Goldman Sachs
- Manager, Little Kiwis Early Learning Centre
- Financial services supervisor, The Warehouse



## Max Kim

**Bachelor of Science and Bachelor of Commerce conjoint in Psychology, Statistics, Marketing and Information Systems**

*"I've always been interested in human behaviour. Studying Psychology and Statistics lets me build my knowledge, as well as analytical and writing skills. I also chose to major in Marketing and Information Systems in my Commerce degree to help improve my problem-solving skills with real-world cases.*

*"My conjoint degree gives me the chance to learn and interact with people from different faculties, and it broadens my job opportunities – I could become a business consultant, psychologist or a data analyst. Also, the skills I learn in my Science and Commerce degrees complement each other, so I'm able to improve my abilities and achieve higher standards.*

*"I chose to study at the University of Auckland because it is the top university in New Zealand and with high international recognition, it attracts talented people from different regions. Surrounding myself with smart and ambitious people helps me constantly challenge myself to achieve.*

*"Environment and friendships are important aspects in University life. Both the Faculty of Science and the Business School have amazing people and environments that foster interaction. Meeting different people and making a lot of friendships helps with networking for my future career, and makes University life so much more enjoyable."*

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