2026 SCIENCES

PŪTAIAO

UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

Bachelor of:

- Data Science
- Environmental Science with Honours
- Forestry Science
- Psychological Science
- Science

160+ CLUBS

and societies on campus to explore hobbies

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The University's official regulations are at:

Front cover: In the design Makaurangi, a fingerprint, the three elements are representative of Ngā Kete o te Wānanga, the three baskets of knowledge, with the lines and koru a symbol of mana and mana whenua. This design originates from traditional whakairo (carving) and kōwhaiwhai designs which can often be seen on the rafters inside wharenui (meeting house).

Rainbow Diversity Support

UC is proud to partner with Ngāi Tūāhuriri and Ngāi Tahu to uphold the mana and aspirations of mana whenua.

Kia ora

We need more students at the forefront of sciences, who speak up on global issues and will help create a sustainable future.

This brochure contains the subjects related to the sciences — from Antarctic Studies all the way to Sustainable Coasts. You can also see the undergraduate degrees and other shorter qualifications like certificates and diplomas you can do at UC.

We give you a glimpse of what the Sciences are like, with our student culture, learning opportunities, exciting and innovative research, and collaboration happening all at one place.

For any questions, contact a Future Student Advisor to get more information. See **page 41** for contact details. Please recycle this brochure or pass it to someone who wants to learn more.

Source: ChristchurchNZ

$

11% cheaper than Wellington
15% cheaper than Auckland

Life in Ōtautahi Christchurch

It is easy to get around in Ōtautahi Christchurch, whether you walk, bike, ride the bus, or drive. UC is uniquely situated in Ōtautahi — with an open green campus, beautiful gardens, and a river running through.

For the most up-to-date information, please check our website.

Source:
ChristchurchNZ

365+

walking, hiking, and mountain biking tracks

1. **UC campus**
2. **University of Canterbury Student Association (UCSA)**
3. **UC accommodation**
4. **Supermarket and restaurants**
   15-minute walk from UC
5. **Westfield shopping mall**
   5-minute drive from UC
6. **Central business district (CBD)**
   10-minute drive from UC
7. **Port Hills**
   20-minute drive from UC
8. **Beach**
   20-minute drive from UC
9. **Airport**
   10-minute drive from UC
10. **UC sports field**

1,775 HECTARES

UC's Cass Mountain Research Area is the largest university-owned and operated high-country teaching and research area in Aotearoa

Sciences at UC

Where you will study

You may study in our Rutherford Regional Science and Innovation Centre (RRSIC), inspired by the Ngāi Tahu narrative about Tāwhaki who ascended the heavens in the pursuit of knowledge.

Learning and research spaces in the centre have state-of-the-art equipment, high-tech computing systems and technology, labs, research centres, and informal study and social spaces.

Indigenous knowledge

Kaupapa Māori is integrated into our courses, so you can learn about Māori values and understand the potential of indigenous knowledge to solve wider issues like climate change, waterways and ecological management, and urban transport design. You can also take up Māori and Indigenous studies through many pathways — find out more from a Kaitoko: **firstyearadvice@canterbury.ac.nz**

Get hands-on

You can 'do' science right from the start of your studies in Waitaha Canterbury's living laboratory — with hands-on learning in:

- lectures and labs
- field trips throughout the South Island
- field stations in Takapō Tekapo, Cass, and Kawatiri Westport.

Work-Integrated Learning

Set yourself apart by engaging with Work-Integrated Learning at UC. As part of your degree, you are able to apply what you learn in your courses to practical settings like internships, projects, and competitions with industry.

This hands-on approach not only enriches your education, but also helps you develop essential skills, gain valuable industry insights, and build a professional network, — so you can put your best foot forward as you transition into work. See **page 27** to learn about our internship programme called PACE.

"One of the things that surprised me is the number of positions having a science degree opened up. I've had a wide range of jobs from R&D at Resene Paints, to working with engineers to collect detailed building safety information after the earthquakes, and now working with an interdisciplinary team of physicists, computer scientists, and radiologists."

Hannah
Bachelor of Science in Biochemistry and Biological Sciences, Master of Science in Biochemistry, PhD in Biochemistry

Student life

UC has a close-knit science precinct, and as you become more specialised in your qualification, class sizes become smaller giving you more opportunities to bond with your classmates and lecturers.

Our campus is built for exploration — students can be found testing pH levels in Kā Waimaero | Ilam Stream waterway, growing specimens in the hydroponic gardens, analysing the geospatial layout of campus, conducting psychological surveys, or admiring the rock and gem collection.

With 160+ active clubs on campus, you can pursue whatever interests you. Science specific clubs include:

- EnviroSoc
- FORSOC (forestry)
- GeogSoc
- ChemSoc
- RockSoc (geology)
- CompSoc
- PSYCSOC.

ucsa.org.nz/clubs

Learn from the best

Lots of our researchers teach which means you learn from internationally recognised academics in biology, computer science, data science, geography, linguistics, maths, and more. We collaborate with a range of research centres like:

- Te Pokapū Taunekeneke Rāpoi Ngota Biomolecular Interaction Centre
- Gateway Antarctica
- Te Taiwhenua o te Hauora GeoHealth Laboratory
- Toi Hangarau | Geospatial Research Institute
- Waterways Centre
- Wood Technology Research Centre
- Te Hiranga Ahumoana, Hauropi Moana Centre of Excellence in Aquaculture and Marine Ecology.

Sustainability at UC

UC is in the top ten universities worldwide for environmental education (QS Sustainability Rankings 2024) and we have a range of innovative and diverse study options in sustainability.

UC is committed to incorporating the United Nations' 17 Sustainable Development Goals in all aspects of campus life, research, teaching and learning, and community engagement.

You can read about our stories here:

A unique feature is our edible campus with foods you can forage throughout the year. We also have a community garden that you can get involved with to grow your own food and put sustainability into practice.

Exciting careers ahead

Interdisciplinary learning opens up roles in science that are contemporary, relevant, and exciting. Depending on your chosen subject and degree, you could become a toxicologist, food technician, forestry scientist, data scientist, meteorologist, marine biologist, psychologist, policy advisor, Māori liaison or iwi development consultant, computer scientist, or science writer.

Subject rankings

UC is ranked in the top 100 universities in the world for Geography and Linguistics, top 150 for Agriculture and Forestry, and top 200 for Earth and Marine Sciences, Geophysics, and Geology. Source: QS World Rankings by Subject, 2024.

Kupu pātahi | Common terms

Degrees

Degrees are a type of qualification you can study at university — there are several types of qualifications varying in level of study and length of time, such as:

Bachelor's degrees

A bachelor's degree is an undergraduate qualification that usually takes 3–4 years to complete. We offer many bachelor's degrees.

Certificates and Diplomas

If you are unable to study a full degree, or want to add some additional study to your degree, you could complete a certificate or diploma. These have fewer courses and are often completed in 6 months to a year.

Subjects

Subjects are areas you can study in your degree. Some subjects you can continue from secondary school such as Maths, Geography, English, while some you can start new at UC eg, Data Science, Linguistics, Psychology.

Major

A major is the subject you choose to specialise in all the way to the final year of your bachelor's degree. For example, a Bachelor of Science majoring in Psychology.

Double major

In some degrees, you are able to specialise in two main subjects — this is called a double major. These two majors can be completed in the same time as a single major.

Minor

A minor is another smaller subject focus you can take in your degree, which you won't study as extensively as a major. For example, a Bachelor of Science majoring in Geology with a minor in Geography.

It is not compulsory to do a minor.

Courses

A course is a specific topic within a subject, for example a Freshwater course within the Environmental Science subject. This involves lectures, assignments, and other forms of study. Your degree is made up of multiple courses.

Points

Each course has a points value — 1 point is equivalent to 10 hours of study. You will need to complete a certain number of points overall to successfully finish your study.

Semester

The academic year is split into three periods of study. One semester is the equivalent of two terms at secondary school.

- Semester 1: February – June
- Semester 2: July – November
- Summer: November – February.

More information

Please contact the Future Students Office for degree and subject planning advice. See **page 41** for contact details.

futurestudents@canterbury.ac.nz

Double and conjoint degrees

If you are really keen, you can combine bachelor's degrees. There are two ways of doing this — double and conjoint degrees.

Double degrees

Some bachelor's degrees can be studied together. This allows you to really specialise your study, opening up a wider range of career options.

Conjoint degrees

A conjoint takes a major from one degree and another major from another separate degree and combines them into one degree. Unlike double degrees, these must be completed at the same time, and involve a much higher workload each year.

There are currently four conjoint degrees with Science:

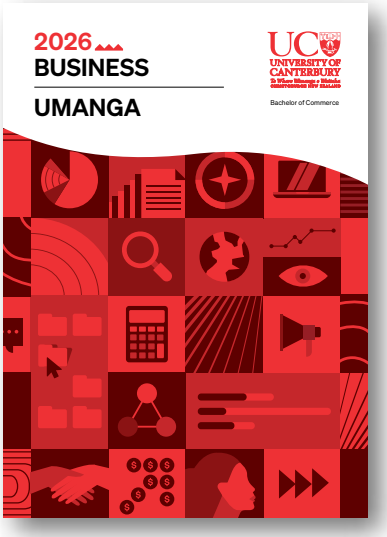
- Conjoint Bachelor of Arts and Science
- Conjoint Bachelor of Commerce and Science
- Conjoint Bachelor of Engineering with Honours and Science
- Conjoint Bachelor of Product Design and Science.

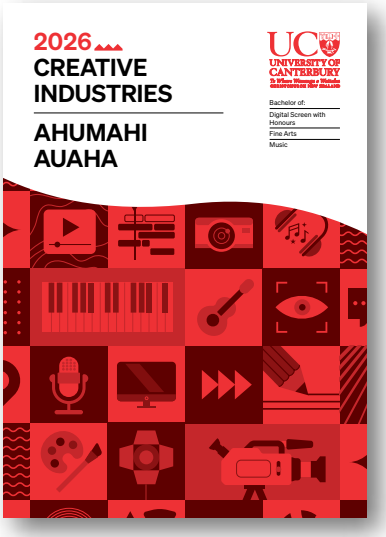
Note: A Future Student Advisor can help you plan your studies. See **page 41** for contact details.

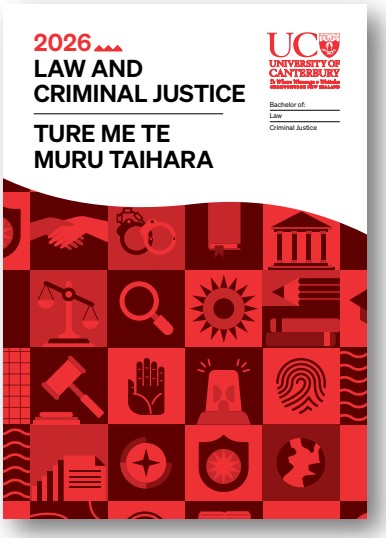
The table below compares the two ways of studying:

	Double degree	Conjoint degree
Entrance requirements	University Entrance (UE).	UE and at least Level 3 endorsed in Merit.
Academic requirement to continue each year of degree	Standard passing grades apply.	Must maintain a grade average of at least a B each year.
Workload per year	Standard (120 points). Approximately eight (15-point) courses per year.	Increased (135 points). Approximately nine (15-point) courses per year. Must take at least one course from each qualification each year.
Graduate	You can complete either both at the same time or one after the other.	Both degrees must be completed before you can graduate.
Minimum timeframe	5-6 years (depending on degrees).	4 years.
Majors/minors	As required/permitted for each degree. Multiple majors (eg, double major in a single degree) and minors are possible.	Maximum of one major in each degree. Minors may be possible; and a minor is required for the BA.
Number of qualifications gained	Two – you gain both degrees.	One – a conjoint combines the courses into just one degree.

Other areas of interest







Kaupapa Subjects

60+

choices of minors available to BSc students — from Science, Arts, Commerce, Digital Screen, Health Sciences, Product Design, Sport, or Youth and Community Leadership.

Kaupapa | Subjects

11 Antarctic Studies
11 Astronomy
12 Biochemistry
13 Bioinformatics
13 Biological Sciences
13 Business Analytics
14 Chemistry
14 Computer Science
15 Data Science
15 Economics
16 Ecosystem Health and Biosecurity
16 Environmental Change
17 Environmental Contamination
17 Environmental Hazards and Disasters
18 Environmental Science
18 Finance
19 Financial Engineering
19 Forensic Psychology
20 Forestry Science
20 Freshwater
20 Geography
21 Geology
22 Linguistics
22 Māori and Indigenous Perspectives
23 Mathematics
24 Medicinal Chemistry
24 Neuroscience and Cognition
25 Philosophy
25 Physics
26 Population Health Data Science
26 Psychological Wellbeing
27 Professional and Community Engagement
27 Psychology
28 Psychology for Common Good
28 Spatial Data Science
29 Statistics
30 Sustainable Coasts
31 Water Science and Management
31 Workplace Psychology

See our full list of subjects at **canterbury.ac.nz/study/academic-study/subjects**

It is not always possible for all courses to be offered every year. See the online Course Information System. **canterbury.ac.nz/courseinfo**

Antarctic Studies

Antarctica is the highest, coldest, and most isolated continent, so vast that it affects climate and ocean currents. Explore its history, biodiversity, and role in the global climate crisis.

What will my study involve?

- A wide range of topics like Arctic climate, marine ecology, biodiversity, hazards and disaster management.
- Learn how life — microbes, plants, animals, and humans — thrives in these extreme conditions.
- Gateway Antarctica, UC's on-campus research centre, plays a role in international research, engineering in extreme environments, and connections between Antarctica, Aotearoa, and global nations. Learn from the experts.

Courses

Courses in this programme will introduce you to various aspects of Antarctica, from its extreme climate to the history of Antarctic exploration and beyond:

Topics can include:

- weather and climate change
- southern ocean exploration
- biodiversity and ecosystem
- social and political issues.

Include Antarctic Studies courses in any bachelor's degree at UC to examine critical, contemporary issues around climate change and politics.

canterbury.ac.nz/courseinfo

Career opportunities

By learning about the Antarctic region, you will understand the impact Antarctica has on the world. You will be able to contribute to lots of areas like research, education, conservation and sustainability, engineering, and tourism.

Career pathways could include:

- Antarctic science (eg, glaciology, atmospherics, oceanography)
- engineering and technical support
- policy and law
- science communications and education.

canterbury.ac.nz/life/jobs-and-careers

Study Antarctic Studies:

Cannot be studied as a major or minor, but you can take these courses as part of any degree.

Astronomy

Astronomy is the study of matter and radiation throughout all time and space.

Astronomers use the latest technological advancements to do this, making this field one of the most rapidly expanding of all physical sciences.

What will my study involve?

- Some of the topics you will study include planets, the evolution of stars, black holes, the structure and evolution of galaxies, and dark matter and dark energy.
- You will get the opportunity to observe at Ōtehīwai — University of Canterbury Mount John Observatory — the best optical astronomical research centre in Aotearoa.
- We are the only university in Aotearoa to teach Astronomy at all levels of study.

Courses

Good grades in physics and calculus are required for entry into this subject. However, we offer introductory courses for those who don't have a strong background from secondary school.

Our first-year courses give you a foundation in astronomy, physics, and maths. You will also learn programming basics throughout your study.

Topics can include:

- how the universe works — from planets to the universe as a whole
- astrophysics and dark matter
- electromagnetism and mechanics
- cosmology and theories of the universe.

canterbury.ac.nz/courseinfo

Career opportunities

If you are considering studying Astronomy and Astrophysics, you probably have a natural curiosity about how things work. An Astronomy degree could lead you towards being a part of the many exciting and unexpected discoveries we have yet to make about our universe.

Through your studies, you will learn skills like computer modelling, data analysis, problem-solving, computer programming, and communication, which also opens up pathways beyond astronomy.

Career pathways could include:

- astronomer and other scientific fields (physicist, meteorologist, geophysicist)
- technical writer
- data analysis and information technology
- science communication, teaching, and media.

canterbury.ac.nz/life/jobs-and-careers

Study Astronomy:

As a Major:

- Bachelor of Science

As a Minor:

- Bachelor of Arts
- Bachelor of Commerce
- Bachelor of Digital Screen with Honours
- Bachelor of Health
- Bachelor of Product Design
- Bachelor of Science
- Bachelor of Social and Environmental Sustainability
- Bachelor of Sport
- Bachelor of Youth and Community Leadership

Other pathways:

- Certificate in Science
- Diploma in Science

Biochemistry

Biochemistry is the study of life at the cellular level, giving us insight into the history of all living species — animals, plants, bacteria, and viruses — and how they function.

Biochemistry knowledge can be applied in broad and diverse ways, such as genetic engineering, conservation and restoration, biomedical science, and disease treatment.

What will my study involve?

- Practical exercises and labs.
- There is exciting research happening at UC and you can learn from many of our experts through Te Pokapū Taunekeneke Rāpoi Ngota | Biomolecular Interaction Centre, with connections to other universities, industry, and international collaborators.
- You can also minor in Biochemistry within many different bachelor's degrees to give your other studies a biological focus.

Courses

Good grades in chemistry from secondary school are required for entry into this subject. However, we offer introductory chemistry courses for those who don't have a strong background.

Biochemistry courses introduce you to areas like cellular biology, ecology, and chemistry.

Topics can include:

- molecular biology
- protein science and chemistry
- biochemistry pathology (eg, cancer, heart disease)
- metabolism.

canterbury.ac.nz/courseinfo

Career opportunities

Biochemistry is an ever-evolving area of study and you will be prepared for many opportunities like research, working in the industry, international opportunities, or further specialisation.

Your contribution to the field can help address challenges and advance many areas of life.

Career pathways could include:

- nutrition
- medical diagnostics and drug testing
- agriculture
- biotechnology design.

canterbury.ac.nz/life/jobs-and-careers

Study Biochemistry:

As a Major:

- Bachelor of Science

As a Minor:

- Bachelor of Arts
- Bachelor of Commerce
- Bachelor of Digital Screen with Honours
- Bachelor of Health
- Bachelor of Product Design
- Bachelor of Science
- Bachelor of Social and Environmental Sustainability
- Bachelor of Sport
- Bachelor of Youth and Community Leadership

Other pathways:

- Certificate in Science
- Diploma in Science

Bioinformatics

Bioinformatics collects, stores, and analyses biological data for disease diagnosis, cellular evolution and mutation, medicine development, and many other applications.

Studying bioinformatics will give you practical experience in real industry research outcomes.

What will my study involve?

- Study breakthrough science in genetics and learn how data is used to improve lives.
- Use computer and molecular genetics labs on campus, which includes the Canterbury Sequencing Facility and the Ancient DNA Laboratory.
- UC has research centres that specialise in bioinformatics, with experts making breakthroughs in breast cancer detection and stroke risk research.

Courses

Courses begin with the basics of cellular biology, evolution, ecology, and conservation biology, before going onto advanced programming and modelling of large-scale data.

Topics can include:

- genome sequencing
- evolution
- data analysis and programming
- ethics and legal use of biological data.

canterbury.ac.nz/courseinfo

Career opportunities

A Bioinformatics degree gives you an understanding of genomics and molecular biology, combined with professional, interdisciplinary skills in statistics, computer programming, and applying data to research outcomes.

This skillset will prepare you for many roles processing large amounts of data for medical needs, or even in developing new technologies in the field.

Career pathways could include:

- drug and medicine development
- clinical health testing
- forensics
- conservation.

canterbury.ac.nz/life/jobs-and-careers

Study Bioinformatics:

- Bachelor of Data Science

Biological Sciences

Biology is the study of living things, from animals to plants to microbes. The scale varies from molecules and cells to organisms, populations, and ecosystems.

We need to know how the living world interacts with the environment to better understand and prepare for the future.

What will my study involve?

- Lab work to examine cell biology, biodiversity, microorganisms, and more.
- We have the most extensive network of field stations of any university in Aotearoa. You get to explore Te Waipounamu South Island to enhance your practical field skills.
- You can focus your interests as you progress in your studies.
- Our Biological Sciences major has been accredited by the Royal Society of Biology (RSB), the first in Aotearoa to be internationally recognised in this way. This means that when you graduate you will be equipped with well-rounded knowledge and skills, making you highly employable.

Courses

First-year courses introduce you to the foundations of cell structure, evolution, and statistics.

Topics can include:

- marine biology
- protein science
- biochemistry behind diseases like cancer
- ecology and conservation.

canterbury.ac.nz/courseinfo

Career opportunities

A Biological Sciences major indicates you have the ability to access, understand, analyse, and communicate complex information. You can develop further technical knowledge in areas that interest you like biosecurity, marine biology, evolutionary ecology, soil restoration, and biotechnology.

Career pathways could include:

- forensics
- primary industries
- ecology
- pharmaceutical and governmental industries.

canterbury.ac.nz/life/jobs-and-careers

Study Biological Sciences:

As a Major:

- Bachelor of Science

As a Minor:

- Bachelor of Arts
- Bachelor of Commerce
- Bachelor of Digital Screen with Honours
- Bachelor of Health
- Bachelor of Product Design
- Bachelor of Psychological Science
- Bachelor of Science
- Bachelor of Social and Environmental Sustainability
- Bachelor of Sport
- Bachelor of Youth and Community Leadership

Other pathways:

- Certificate in Science
- Diploma in Science

Business Analytics

Business Analytics brings in data from areas such as accounting, marketing, and economics to help make better business decisions, improve customer services, and implement growth strategies using tools like machine learning.

What will my study involve?

- Use data to recognise and plan future developments, and identify new business opportunities.
- Flexible study so you can focus on your interests such as accounting, marketing, economics, and software programming.
- Include Business Analytics as a minor in a wide range of degrees for a data-informed career.

Courses

First-year courses will introduce you to collecting and reading data. Later courses will allow you to focus on a particular area such as finance, business economics, and information systems.

Topics can include:

- managing large sets of data
- information software and new technologies
- marketing and recognising customer trends
- ethics of gathering data.

canterbury.ac.nz/courseinfo

Career opportunities

Having the skills to analyse and interpret data will make you an important part of growing businesses and keeping our world more informed. Data scientists are in demand as it is an area that faces significant skills shortages globally.

Career pathways could include:

- business analyst
- marketer
- strategic consultant
- data scientist.

canterbury.ac.nz/life/jobs-and-careers

Study Business Analytics:

As a Major:

- Bachelor of Data Science

As a Minor:

- Bachelor of Arts
- Bachelor of Commerce
- Bachelor of Digital Screen with Honours
- Bachelor of Health
- Bachelor of Product Design
- Bachelor of Science
- Bachelor of Social and Environmental Sustainability
- Bachelor of Sport
- Bachelor of Youth and Community Leadership

Chemistry

Chemistry deals with the composition, structure, and behaviour of atoms and molecules that make up all forms of matter.

Understanding the world at an atomic level helps us see how things are interconnected and work together.

What will my study involve?

- Apply your learning in the lab and research projects in diverse areas of chemistry — physical, biological, environmental, theoretical, and more.
- Study Chemistry as a minor within many bachelor's degree options to add a scientific background to your other subjects.

Courses

Good grades in chemistry are required for entry into this subject. However, we offer introductory chemistry courses for those who don't have a strong background from secondary school.

The first year is broad and you will be able to take lots of introductory science courses and labs to get you started.

As you progress, you will get to explore and experiment with different branches of advanced chemistry, such as electrochemistry (energy), thermodynamics (heat and radiation), and photochemistry (light).

Topics can include:

- laboratory skills
- organic and inorganic chemistry
- nanotechnology
- medicinal chemistry.

canterbury.ac.nz/courseinfo

Career opportunities

There are new and exciting discoveries happening every day in the field of chemistry, and your studies will prepare you to address global challenges like energy, food supply, health, and environmental change.

Career pathways could include:

- toxicology and forensics
- product development
- pharmaceuticals
- food science.

canterbury.ac.nz/life/jobs-and-careers

Study Computer Science:

As a Major:

- Bachelor of Science

As a Minor:

- Bachelor of Arts
- Bachelor of Commerce
- Bachelor of Digital Screen with Honours
- Bachelor of Health
- Bachelor of Product Design
- Bachelor of Psychological Science
- Bachelor of Science
- Bachelor of Social and Environmental Sustainability
- Bachelor of Sport
- Bachelor of Youth and Community Leadership

Other pathways:

- Certificate in Commerce
- Certificate in Science
- Diploma in Commerce
- Diploma in Science

Computer Science

Computer Science is not only about programming or coding, but has many aspects such as human-computer interaction (including virtual and augmented reality), artificial intelligence, cybersecurity, data science, cloud computing, and computer graphics.

The potential of this field to solve problems and make improvements in our lives is limitless. Computer Science is present in everyday life — in Google searches, driving your car, disease detection, or surveying drones to name a few.

What will my study involve?

- An opportunity to study Computer Science alongside other subjects that you are interested in like Psychology, Economics, and Product Design.
- Work experience opportunities through internships.
- Computer Science is a flexible subject that you can major or minor in within many degree options.

Courses

First-year courses introduce you to topics such as programming, mathematics, and digital systems. Further study will go in-depth with courses that interest you.

Topics can include:

- Artificial Intelligence and machine learning
- operating and embedded systems
- cloud computing and data science
- computer networks and cybersecurity.

canterbury.ac.nz/courseinfo

Career opportunities

The skills you will gain from your studies include technical knowledge in computer science, problem-solving, logical thinking, creativity, teamwork, and communication.

These skills will lead into many industries like agriculture, health, finance, and education. You will be able to work anywhere in Aotearoa or overseas.

Career pathways could include:

- software, web, mobile, and game development
- IT consulting
- cybersecurity
- telecommunications.

canterbury.ac.nz/life/jobs-and-careers

Study Computer Science:

As a Major:

- Bachelor of Science

As a Minor:

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- Bachelor of Psychological Science
- Bachelor of Science
- Bachelor of Social and Environmental Sustainability
- Bachelor of Sport
- Bachelor of Youth and Community Leadership

Other pathways:

- Certificate in Commerce
- Certificate in Science
- Diploma in Commerce
- Diploma in Science

Data Science

Data Science is an emerging field that combines Computer Science, Mathematics, and Statistics with other disciplines. You will learn to understand and analyse data, and communicate your findings for the best possible decision-making.

What will my study involve?

- Investigate the many sources and applications of data in healthcare, business, transport, and economics.
- Get hands-on in the field in connection with UC's various research centres.
- Project work in your final year where you will be applying data science in the workplace.

Courses

You will study foundational courses in data science, computer programming, and computer science, plus examine how our society interact with data systems.

Topics can include:

- data models and database systems
- data wrangling and applications
- big data and data mining
- data security and ethics.

canterbury.ac.nz/courseinfo

Career opportunities

With such a wide range of industry applications, Data Science is one of the most essential and employable skills of the 21st century.

Career pathways could include:

- data scientist
- business and technology analyst
- data visualisation consultant
- insights consultant.

canterbury.ac.nz/life/jobs-and-careers

Study Data Science:

- Bachelor of Data Science

Economics

Economics is the study of how people behave and make decisions — how we use our resources, how we deal with issues like climate change, which career we choose, and more. These decisions involve trade-offs between costs and benefits, and we are constantly considering these in our everyday life.

At UC, there are lots of opportunities to gain experience including industry projects, internships, clubs, and overseas study trips.

What will my study involve?

- Learn about the impact of your choices on the world, and how foreign countries impact Aotearoa New Zealand's economy.
- Option for a final-year internship.
- Economics major and minor is available in many degrees so you can combine studies with other relevant areas such as Finance, Product Design, Political Science and International Relations, and Psychology.

Courses

First-year courses are introductory and teach you the basics of micro and macroeconomics. More advanced courses expand into areas such as market and organisational behaviour, and public policy.

Topics can include:

- international trade
- consumer and business behaviour
- developmental economics
- environmental economics.

canterbury.ac.nz/courseinfo

Career opportunities

By analysing the impact of choices by government, consumers, and businesses, you will learn important skills like critical thinking, understanding risk, and forecasting to help make better decisions.

Career pathways could include:

- professional economist
- market research
- data analyst
- banking and investment.

canterbury.ac.nz/life/jobs-and-careers

Study Economics:

As a Major:

- Bachelor of Science
- Bachelor of Arts
- Bachelor of Commerce

As a Minor:

- Bachelor of Arts
- Bachelor of Commerce
- Bachelor of Digital Screen with Honours
- Bachelor of Health
- Bachelor of Product Design
- Bachelor of Psychological Science
- Bachelor of Science
- Bachelor of Social and Environmental Sustainability
- Bachelor of Sport
- Bachelor of Youth and Community Leadership

Other pathways:

- Certificate in Arts
- Certificate in Commerce
- Certificate in Science
- Diploma in Arts
- Diploma in Commerce
- Diploma in Science

Ecosystem Health and Biosecurity

This subject will help you understand the extent of our impact on the natural world and why it is so important to protect our native species and habitats.

What will my study involve?

- Learn about current threats to biosecurity and how these impact our own wellbeing by choosing your focus on areas such as marine biology, forestry, freshwater, and evolution.
- Study biodiversity and learn practical skills through UC research centres and field stations.
- Take part in work placements and projects working alongside community organisations.
- Studying this major as part of the Bachelor of Environmental Science with Honours is the only degree of its kind in Aotearoa, and is accredited by the Environment Institute of Australia and New Zealand (EIANZ) to deliver environmental practitioners for roles in industry, government, education, research, and the community.

Courses

First-year courses will introduce you to ecology, environmental science, chemistry, and statistics.

From your second year, you will focus on ecosystems and biosecurity, with a wide range of optional courses so you can specialise.

Topics can include:

- biodiversity and biosecurity
- data gathering and analysis
- fieldwork and field trips
- elective courses like microbiology, conservation, soil fertility, and invasive species.

canterbury.ac.nz/courseinfo

Career opportunities

Through your studies, you will be able to learn how to identify invasive species and other disturbances, analyse data, and consider the wider stakeholders involved. You will also learn broader skills like research, conservation, designing experiments, communication, problem-solving, and writing.

Career pathways could include:

- biosecurity
- regional council
- policy and advisory
- ecological restoration.

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Study Ecosystem Health and Biosecurity:

- Bachelor of Environmental Science with Honours

Environmental Change

Explore how our earth works, evolves, and adapts to human activity and extreme climate change. Become a part of the solution to the biggest issues we have ever faced by studying Environmental Change.

What will my study involve?

- Learn about how different earth systems react and repair from ongoing environmental issues, from eroding landscapes to extinct species to extreme weather events.
- Gain applied skills in observation and data analysis and computer modelling through field stations and work experience.
- Learn to merge mātauranga Māori and scientific knowledge to broaden your understanding and approach to environmental issues.
- The Bachelor of Environmental Science with Honours is accredited by the Environment Institute of Australia and New Zealand (EIANZ) to deliver environmental practitioners for roles in industry, government, education, research, and the community.

Courses

Within the first year, you learn about how human activity can disrupt or completely change Earth's ecosystems, biodiversity, and atmosphere. As you continue, your coursework will include more complex data modelling, bioinformatics, and long-term global effects of climate change.

Topics can include:

- Antarctica and global change
- coastal changes
- natural disasters
- biosecurity and contamination.

canterbury.ac.nz/courseinfo

Career opportunities

Your scientific knowledge will be especially important in roles where you can help inform society about the potential hazards and consequences that will arise from exploiting our natural resources.

Career pathways could include:

- natural scientist
- government officer
- urban and environmental planner
- resource manager.

canterbury.ac.nz/life/jobs-and-careers

Study Environmental Change:

- Bachelor of Environmental Science with Honours

Environmental Contamination

Environmental Contamination is the science of prevention and treatment of contaminants and invasive organisms in our ecosystems.

This major offers practical learning in identifying contaminants and their source, analysing their impact, and developing strategies to prevent further exposure.

What will my study involve?

- Investigate threats to our natural environment, such as toxic contamination in drinking water, pests destroying our local habitats, and agricultural disease.
- Field studies, lab work, and work experience, with a microscopy facility and microbiology lab on campus, and our field stations throughout Waitaha Canterbury.
- Learn to merge mātauranga Māori and scientific knowledge to broaden your understanding and approach to environmental issues.
- The Bachelor of Environmental Science with Honours is accredited by the Environment Institute of Australia and New Zealand (EIANZ) to deliver environmental practitioners for roles in industry, government, education, research, and the community.

Courses

You will be introduced to chemistry and biology before going onto more advanced courses like surface-earth science, including landforms, glaciers, atmosphere, and freshwater contaminants.

Topics can include:

- sample collecting and lab preparation
- microbiology and chemistry
- soil, water, and air quality assessment
- toxicology.

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Career opportunities

Contamination risk is always high with infrastructure, transportation, and natural resource use. Your specialist knowledge in microbiology and contamination will be essential to help combat ongoing damage to our natural world.

Career pathways could include:

- border security
- infrastructure planner
- agricultural manager
- work safety inspector.

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Study Environmental Contamination:

- Bachelor of Environmental Science with Honours

Environmental Hazards and Disasters

Through this major, you will get the chance to analyse disasters like earthquakes, floods, and volcanic activity to reduce their risk and impact.

You will put into practise disaster management and response plans through extensive field studies around Te Waipounamu South Island.

What will my study involve?

- Examine the issues caused by sudden, extreme changes to the environment and communities.
- Through case studies, lab, field studies, and work experience, you will learn to analyse information relevant to an actual hazard or disaster situation.
- Use modern tools like geospatial analysis and GIS to map out disaster effects, forecast data, and create response plans.
- The Bachelor of Environmental Science with Honours is accredited by the Environment Institute of Australia and New Zealand (EIANZ) to deliver environmental practitioners for roles in industry, government, education, research, and the community.

Courses

First-year courses introduce you to the foundations of environmental science, statistics, and chemistry.

In your second year, you will examine earth science systems that lead to hazards and learn strategies to minimise them.

Topics can include:

- risk assessment and communication
- earth surface behaviour
- resilience strategies for high-risk communities
- sustainable and ethical development.

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Career opportunities

Your studies will give you technical skills in data modelling and assessment, in addition to understanding the science behind disasters and hazards.

Career pathways could include:

- crisis and emergency response
- urban resilience planning
- geospatial mapping
- government and policy.

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Study Environmental Hazards and Disasters:

- Bachelor of Environmental Science with Honours

Environmental Science

Environmental Science is the study of the natural world, its ecosystems, and our interactions with it.

This knowledge is particularly important today as we focus more on biosecurity, sustainability, natural disasters, and global climate change.

What will my study involve?

- UC operates field stations at Cass and Kawatiri Westport where you will do fieldwork and research.
- The Bachelor of Environmental Science with Honours is the only degree of its kind in Aotearoa, and is accredited by the Environment Institute of Australia and New Zealand (EIANZ) to deliver environmental practitioners for roles in industry, government, education and research, and the community.

Courses

First-year courses are introductory and don't require any previous study. However, previous study in biology, mathematics, statistics, and chemistry will be useful.

Fieldwork and practical labs are a major part of your studies so you can work directly with environmental issues around Waitaha Canterbury.

Topics can include:

- natural resources management
- coastal cities
- global climate change
- agriculture and environmental issues.

canterbury.ac.nz/courseinfo

Career opportunities

Through your studies, you will gain a strong understanding of environmental science, developing sustainable solutions to environmental issues, and how to build resilient communities.

You will also develop skills in data analysis, environmental psychology, risk assessment, and case study analysis.

Career pathways could include:

- government agencies
- research institutes
- consultancies
- biotechnology.

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Study Environmental Science:

- Bachelor of Environmental Science with Honours

As a Major:

- Bachelor of Science

As a Minor:

- Bachelor of Arts
- Bachelor of Commerce
- Bachelor of Digital Screen with Honours
- Bachelor of Health
- Bachelor of Product Design
- Bachelor of Psychological Science
- Bachelor of Science
- Bachelor of Social and Environmental Sustainability
- Bachelor of Sport
- Bachelor of Youth and Community Leadership

Other pathways:

- Certificate in Science
- Diploma in Science

Finance

Finance looks into future planning for businesses, investors, and more. It shapes the health of every economy, and at UC you will gain the knowledge to make the right financial decisions.

What will my study involve?

- Examine three key areas: corporate finance, financial markets, and investments.
- Extra opportunities including case competitions, Chartered Financial Analysts (CFA) exams, and Professional Risk Manager (PRM) qualifications.
- Option for a final-year internship.

Courses

Your first year of studies will introduce you to the fundamentals of finance and build from there.

Topics can include:

- investment and portfolio management
- financial theories and practice
- retirement and estate planning
- data modelling and forecasting.

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Career opportunities

Studying Finance will prepare you for a range of jobs in the financial and business sectors, as well as any roles that involve detailed knowledge of analysing data, risk planning and management, and accounting.

Career pathways could include:

- financial advisor
- investment broker
- data analyst
- foreign exchange dealer.

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Study Finance:

As a Major:

- Bachelor of Science
- Bachelor of Commerce

As a Minor:

- Bachelor of Arts
- Bachelor of Commerce
- Bachelor of Digital Screen with Honours
- Bachelor of Health
- Bachelor of Product Design
- Bachelor of Science
- Bachelor of Social and Environmental Sustainability
- Bachelor of Sport
- Bachelor of Youth and Community Leadership

Other pathways:

- Certificate in Commerce
- Certificate in Science
- Diploma in Arts
- Diploma in Commerce
- Diploma in Science

Financial Engineering

Financial Engineering combines financial and economic theory with computational tools to design financial products, portfolios, markets, and regulations.

UC offers the only Financial Engineering programme in Aotearoa.

What will my study involve?

- Combine topics from economics, maths, statistics, and engineering.
- Create financial models, market simulations, and computer programs.

Courses

First-year courses will give you the foundations of Financial Engineering, with introductory maths, computer science, economics, and statistics.

Later courses go more in-depth on financial software, business skills, and calculating finances.

Topics can include:

- software development
- consumer behaviour
- financial markets
- probability modelling.

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Career opportunities

This major can lead to flexible career opportunities due to the technical skills you will learn during your studies, including problem-solving, programming, and communication. Financial Engineering can lead to careers in the global finance industry and other technical fields, such as information technologies (IT).

Career pathways could include:

- investment broker
- business analyst
- financial engineer
- risk manager.

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Study Financial Engineering:

- Bachelor of Science

Other pathways:

- Certificate in Science
- Diploma in Science

Forensic Psychology

Forensic Psychology intersects the study of psychology and law to examine why people develop criminal behaviour and how crime affects the wider community.

You will apply psychology practice and research to legal settings involving criminals, victims and witnesses, courtrooms and the jury, and the justice system itself.

What will my study involve?

- Develop your behavioural analysis and observation skills to recognise signs of deception, faulty testimony, distress, and other common issues in legal settings such as interrogations and witness interviews.
- Learn about the criminal justice system in Aotearoa and its process of rehabilitation and treatment of both convicts and victims.
- Examine the psychology behind ongoing crime across diverse communities.
- Do a real-world project from the community and industry in your final year of study.

Courses

After a broad first year covering the foundations of psychology practice and research, you will explore the psychology involved in various aspects of the criminal justice system, such as supporting victims, understanding why people offend and reoffend, and forensic science decision-making.

Topics can include:

- mental health and crime
- body language and non-verbal communication, or "reading people"
- causes behind criminal behaviour
- victim and witness care.

canterbury.ac.nz/courseinfo

Career opportunities

This minor gives you practical experience and insight into the complex global research around criminal behaviour, rehabilitation, and reading body language.

These skills will suit careers working within government agencies or directly with people on improving the processes and effectiveness of the justice system.

Career pathways could include:

- law enforcement interrogation
- counselling
- corrections, probations, prison, and police
- justice policy and reform.

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Study Forensic Psychology

- Bachelor of Psychological Science

Forestry Science

Forestry Science is all about learning how to sustainably manage forest resources, conservation, and in policy and planning.

UC is the only university in Australasia offering this programme with a focus on ethical and sustainable management of plantation and native forests.

What will my study involve?

- A wide combination of courses, covering the commercial forestry industry, and efforts in conservation and restoration of forests.
- Coursework in and out of the classroom with workshops, labs, and field trips to plantations and native forests.
- Options for exchange programmes with the University of British Columbia in Canada, and Virginia Polytechnic Institute and State University in the USA.

Courses

Courses in your first year of Forestry Science will cover the importance of and relationship we have with forests, and introduce you to the global forestry industry and its effects on our environment.

As you continue in the degree, you will focus on forest economics, forest engineering and harvesting, silviculture and management of forest plantations, geospatial science, wood science, and environmental forestry.

Topics can include:

- marketing and international trade
- tree breeding
- biosecurity risk management
- advanced wood products processing.

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Career opportunities

Forestry Science is a degree that is well supported by employers in Aotearoa because of the industry demand for foresters with sustainability, conservation, and commercial logistics experience.

Career pathways could include:

- forest management
- forest consulting
- forest policy and planning
- sustainable land management.

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Study Forestry Science:

- Bachelor of Forestry Science

Freshwater

Freshwater is one of our most precious resources, making up only 3% of water on the earth's surface.

Studying Freshwater at UC will involve theoretical and applied skills to understand and develop water treatment systems and infrastructure, and exploring the ethical and sustainable use of freshwater resources.

What will my study involve?

- Study the journey of freshwater as it travels from mountains to the sea, and other ecological systems along the way.
- Learn about our unique cultural history, legal policies, and relationship with bodies of water and freshwater resources in Aotearoa.
- Practical labs, fieldtrips, and work experience around Waitaha Canterbury — beaches, mountains, snow fields, forests, and wetlands.
- The Bachelor of Environmental Science with Honours is accredited by the Environment Institute of Australia and New Zealand (EIANZ) to deliver environmental practitioners for roles in industry, government, education, research, and the community.

Courses

Courses for the Freshwater major begin in your second year of studies, introducing you to hydrological science and aquatic life, and how we collect, process, and use freshwater.

Topics can include:

- water quality assessments
- microorganisms
- freshwater restoration
- water resource conflicts.

canterbury.ac.nz/courseinfo

Career opportunities

Help ensure a sustainable future for this limited resource with a range of freshwater professions — whether it be water catchment, treatment, fisheries, or even disaster and contamination management.

Career pathways can include:

- environmental scientist
- field technician
- environmental planner
- resource management officer.

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Study Freshwater:

- Bachelor of Environmental Science with Honours

Geography

Geography is the study of human behaviour, the environment we live in, and the relationship between both.

This field combines arts and sciences to find innovative solutions to our society's most pressing issues and debates, and the human response to these challenges, such as climate change, poverty, sustainability, health, and inequality.

What will my study involve?

- Explore different pathways in geography: physical geography, human geography, Geographic Information Systems (GIS), and resource and environmental management.
- Practical workshops, labs, and fieldtrips to examine geographical processes outside of the classroom – including urban mobility and planning.
- You will get the opportunity to undertake research with community partners that supports resilient environments and communities through research.

Courses

Introductory level courses are offered in your first year of Geography studies. Further study will offer a variety of courses to choose from and deepen your understanding of your specific interests.

Topics can include:

- climate change – environmental and societal effects and responses
- physical processes from mountains to sea
- community and urban development
- geospatial science.

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Career opportunities

Geography is a distinctive field between science and arts that also has links to law, sociology, engineering, computer science, and health sciences. Due to this diversity, study in Geography will lead to a range of career opportunities.

Career pathways could include:

- climate or environmental consultant
- resource manager
- urban or transport planner
- geospatial scientist.

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Study Geography:

As a Major:

- Bachelor of Science
- Bachelor of Arts

As a Minor:

- Bachelor of Arts
- Bachelor of Commerce
- Bachelor of Digital Screen with Honours
- Bachelor of Health
- Bachelor of Product Design
- Bachelor of Psychological Science
- Bachelor of Science
- Bachelor of Social and Environmental Sustainability
- Bachelor of Sport
- Bachelor of Youth and Community Leadership

Other pathways:

- Certificate in Arts
- Certificate in Science
- Diploma in Arts
- Diploma in Science

Geology

Geology explores the earth building processes of our planet, so that we can best use natural resources, plan land developments and infrastructure, and monitor natural hazards such as volcanoes and earthquakes.

With over 500 million years of geological history, Aotearoa is a rich and unique place to study this earth science.

What will my study involve?

- Focus on climate change, natural disasters, and other earth systems affecting geological processes.
- Learn from our experts on earthquake research, with opportunities to take part in real disaster response and observation.
- Complete practical lab and fieldwork in various stations across Te Waipounamu South Island visiting real geological phenomena, such as earthquake faultlines and volcanoes.

Courses

First-year courses give an introduction to Geology, from examining rocks to mountain formations.

From your second year onwards, you will learn more advanced practical techniques in collecting data, lab analysis, field mapping, and observation in the outdoors.

Topics can include:

- earth surfaces and changing landscapes
- geographical hazards
- mineral study
- geological technology — GIS, LiDAR, and more.

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Career opportunities

Study in Geology offers a wide range of work environments and employment opportunities across the globe, particularly in areas of science and engineering informing on old and new earth developments.

Career pathways can include:

- energy, mining, and petroleum industries
- government and geotechnical planning
- conservation
- research and exploration.

Study Geology:

As a Major:

- Bachelor of Science

As a Minor:

- Bachelor of Arts
- Bachelor of Commerce
- Bachelor of Digital Screen with Honours
- Bachelor of Health
- Bachelor of Product Design
- Bachelor of Science
- Bachelor of Social and Environmental Sustainability
- Bachelor of Sport
- Bachelor of Youth and Community Leadership

Other pathways:

- Certificate in Science
- Diploma in Science

Linguistics

Linguistics is the analysis of languages — from structure, how and why they change, to the way we learn and our unique way of speaking.

By understanding how language is a part of everything we do, you can better understand how communication shapes our identity, relationships, and way of life.

What will my study involve?

- Opportunity to learn from research conducted here at UC.
- UC offers many language studies to complement Linguistics, such as Te Reo Māori, Chinese, Russian, and Japanese.
- Study a minor in Linguistics within a range of bachelor's degrees so you can add communication skills and knowledge to other subjects.

Courses

In the first year, you will learn the basics of English language and Aotearoa New Zealand society, before going on to more advanced analysis and research of language meaning and psychology.

You will also complete at least one course from a language other than English within your study.

Topics can include:

- phonetics
- forensic linguistics
- text analytics
- language acquisition and processing.

canterbury.ac.nz/courseinfo

Career opportunities

Because linguistics is a scientific field of study and involves other areas like history and culture, you gain an in-depth understanding of language, how the brain works, and the use of language in our world. You will learn skills like analysis, research, innovative thinking, problem-solving, and cross-cultural communication.

Career pathways could include:

- translation and interpreting
- marketing
- proofreading and editing
- language teaching.

canterbury.ac.nz/life/jobs-and-careers

Study Linguistics:

As a Major:

- Bachelor of Science
- Bachelor of Arts

As a Minor:

- Bachelor of Arts
- Bachelor of Commerce
- Bachelor of Digital Screen with Honours
- Bachelor of Health
- Bachelor of Product Design
- Bachelor of Psychological Science
- Bachelor of Science
- Bachelor of Social and Environmental Sustainability
- Bachelor of Sport
- Bachelor of Youth and Community Leadership

Other pathways:

- Certificate in Arts
- Certificate in Science
- Diploma in Arts
- Diploma in Science

Māori and Indigenous Perspectives

The cultural environment we live in greatly impacts our identity, experiences, and wellbeing. This subject offers an understanding of Māori and Pacific perspectives, and the historical and contemporary challenges they face.

What will my study involve?

- Learn about Māori and Pacific models of mental health and wellbeing - traditional concepts such as tapu, mana, ihi, and mauri, spiritual versus physical wellbeing; and contemporary concepts such as gender identity.
- Examine the impact of your own culture, values, beliefs, and assumptions in your growing personal and professional role.
- Complete a final-year project with community and industry partners so you can gain real-world connections and contexts in your study.

Courses

You will be introduced to Māori and Pacific cultural concepts that shape their communities and influence global politics, education, health and wellbeing, and sustainability. Gain practical skills through a final-year project course.

Topics can include:

- health challenges
- spiritual beliefs and concepts
- traditional practice in contemporary settings
- relations between Aotearoa and Pacific nations.

canterbury.ac.nz/courseinfo

Career opportunities

Through this subject, you can challenge and expand your worldview, making you a culturally-competent professional who can help more people and their communities.

Learning about tangata whenua and Pacific culture is highly valuable not only in Aotearoa, but also overseas, especially places with their own Indigenous peoples and history.

Career pathways could include:

- advocacy
- organisational psychology
- healthcare services
- policy and strategy.

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Study Māori and Indigenous Perspectives

- Bachelor of Psychological Science

Mathematics

Mathematics is at the forefront of breakthroughs in science, technology, and finance. It has been around for over 4,000 years and is still an innovative subject with new ideas, techniques, and theories constantly being created, tested, and explored.

Being a mathematician puts you one step ahead in preparing for the technological advances of the coming generation.

What will my study involve?

- Study topics such as pure and applied mathematics, modern mathematical theories, key uses, and breakthroughs in mathematical history.
- A wide range of mathematics courses to customise your study and gain skills towards particular career paths.
- Research projects within UC and in connection with industry.

Courses

First-year courses cover the basics of advanced mathematics such as calculus and linear algebra with later courses offering a wide range of topics to choose from, including mathematical philosophy, history, and culture.

We offer introductory maths courses for those who don't have a strong background in maths or statistics.

Topics can include:

- mathematical modelling
- dynamic and non-linear systems
- computational mathematics
- cryptography and coding theory.

canterbury.ac.nz/courseinfo

Career opportunities

Because maths is used almost everywhere, a Mathematics major will open up many different career options. Roles in information technologies, finance, business, scientific research, law, teaching, and other fields will make the most of your logical reasoning skills.

Career pathways could include:

- technology and product design
- research mathematician
- actuary
- fraud investigator.

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Study Mathematics:

As a Major:

- Bachelor of Science
- Bachelor of Arts

As a Minor:

- Bachelor of Arts
- Bachelor of Commerce
- Bachelor of Digital Screen with Honours
- Bachelor of Health
- Bachelor of Product Design
- Bachelor of Science
- Bachelor of Social and Environmental Sustainability
- Bachelor of Sport
- Bachelor of Youth and Community Leadership

Other pathways:

- Certificate in Arts
- Certificate in Science
- Diploma in Arts
- Diploma in Science

Medicinal Chemistry

Medicinal Chemistry explores the design and creation of new medicinal drugs for the treatment and prevention of illnesses.

This major will take you through the entire lifecycle of creating medicines, from discovering and isolating medicinal agents within natural and synthetic sources, through to clinical trials, sustainable production, patents, and sales.

What will my study involve?

- Study how drugs affect the body, synthetic and organic chemistry, and about the global pharmaceutical industry.
- Practical lab courses synthesising and testing drugs, including an introduction to intellectual property (IP) for designing and patenting your own medicinal products.
- Opportunities to be involved in medicinal chemistry research at UC like discovery of bioactive molecules for therapies and therapeutic agents.
- UC's programme has a unique focus on the bioactivity of Aotearoa and Polynesian flora and fauna, traditional rongoā (Māori medicines), and healthcare issues specific to our bicultural community.

Courses

Good grades in chemistry are required for entry into this subject. However, we offer introductory chemistry courses for those who don't have a strong background from secondary school.

Courses introduce you to chemical structures, processes, and their effects on the body, and go on to projects designing and testing your own medicines.

Topics can include:

- cellular biochemistry
- human biology
- clinical trials
- drug discovery and development.

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Career opportunities

There is a high demand for more medicinal chemists to create life-changing medicines. As well as practical skills in pharmaceutics and microbiology, your non-laboratory skills in project management, scientific communications, and marketing will prepare you for roles in both the science and business side of creating medicines.

Career pathways could include:

- biomedical laboratories
- pharmaceutical manufacturing
- commercial drug marketing
- drug regulatory authorities.

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Study Medicinal Chemistry:

- Bachelor of Science

Other pathways:

- Certificate in Science
- Diploma in Science

Neuroscience and Cognition

Neuroscience and Cognition is the interplay between how our brain functions and our psychological processes - understanding how we think, feel, perceive, remember, and behave.

We can study our brains to understand many interconnected things, including our experiences and personalities, neurological conditions, ageing, and recovering after brain injuries.

What will my study involve?

- Investigate the brain, its structure, and function, to see how we become the way we are and behave the way we do, and why this changes over time.
- Practical components include an introduction to visualising, analysing, and interpreting brain imaging data, neuroscience techniques, and lab work.

Courses

You will learn the science behind how we think, and the mental processes of the brain that ultimately shape our experiences and behaviours. As your studies progress, you will learn more about cognitive processes, neuroscience methods, brain disorders and neurological conditions, and brain imaging data.

Topics can include:

- physiological basis of behaviour
- understanding sensation and visual perception
- treatment for neurodegenerative disorders
- cognitive psychology.

canterbury.ac.nz/courseinfo

Career opportunities

With the brain at the centre of everything we do, your studies can lead to a wide range of career pathways to help prevent, treat, or predict future outcomes – from developing new health services, to analysing emerging technologies, to statistical trends in psychological risks.

Career pathways could include:

- behavioural counselling
- healthcare
- clinical research
- neuroscience research.

canterbury.ac.nz/life/jobs-and-careers

Study Neuroscience and Cognition

- Bachelor of Psychological Science

Philosophy

Philosophy teaches you how to think rationally and carefully about complex questions such as: are drone strikes immoral? What about genetic engineering? Should rich countries give substantially more in overseas aid? Is time travel possible?

These skills are of real value in the workplace and help you to look at a problem from all angles and find out-of-the-box solutions.

What will my study involve?

- You can choose to specialise in areas such as ethics, bioethics, philosophy of science and technology, cognitive science and the mind, artificial intelligence, and language.
- There are specialised courses on famous figures such as Plato, Descartes, Wittgenstein, and Turing.
- Choose to add an internship to your study, gain work experience, meet potential employers, and build your CV.

Courses

First-year courses cover a broad range of topics to get you thinking critically about the world we live in.

Topics can include:

- the meaning of life and other big questions
- ethics, values, and morality
- science and religion
- artificial intelligence and human philosophy – consciousness, identity, free will.

canterbury.ac.nz/courseinfo

Career opportunities

The intellectual skills that Philosophy teaches leads to success in many different careers. Many sectors increasingly require people who can think independently and creatively, write clearly, apply logic, solve abstract problems, and communicate precisely.

Career pathways could include:

- environmental advisory
- video game design
- ethics policy
- research management.

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Study Philosophy:

As a Major:

- Bachelor of Science
- Bachelor of Arts

As a Minor:

- Bachelor of Arts
- Bachelor of Commerce
- Bachelor of Digital Screen with Honours
- Bachelor of Health
- Bachelor of Product Design
- Bachelor of Science
- Bachelor of Social and Environmental Sustainability
- Bachelor of Sport
- Bachelor of Youth and Community Leadership

Other pathways:

- Certificate in Arts
- Certificate in Science
- Diploma in Arts
- Diploma in Science

Physics

Physics explores the behaviour between matter and energy — from subatomic particles to the scale of the universe.

Technology and physics go hand-in-hand, and they improve our lives massively. From computers, architecture to agriculture, modern life is built using the understanding of physics.

Studying this field will prepare you to contribute to major advances in technology now and in the future.

What will my study involve?

- Lab experiments, fieldwork, and computing skills in our state-of-the-art facilities including a nano lab, super conduction magnet lab, cloud chamber, and cryogenics lab.
- UC has contributed much to the field with alumnus like Ernest Rutherford and Beatrice Tinsley, with current research including Medical Physics, Nanotechnology, and Cosmology.

Courses

Your first year will give a broad foundation in modern physics and expand in the following years with training in programming, lab skills, scientific writing, and mathematics.

Good grades in physics and calculus are required for entry into this subject. However, we offer introductory courses for those who don't have a strong background in physics or maths.

Topics can include:

- space and time
- materials science — thermodynamics, electromagnetism, and nanotechnology
- quantum mechanics
- experimental physics and astronomy.

canterbury.ac.nz/courseinfo

Career opportunities

Understanding how almost everything works opens up job opportunities in many industries, ranging from experimental research to scientific consulting to building new technology.

Career pathways could include:

- IT and electronic industries
- aerospace
- science centres/museums
- research and development.

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Study Physics:

As a Major:

- Bachelor of Science

As a Minor:

- Bachelor of Arts
- Bachelor of Commerce
- Bachelor of Digital Screen with Honours
- Bachelor of Health
- Bachelor of Product Design
- Bachelor of Science
- Bachelor of Social and Environmental Sustainability
- Bachelor of Sport
- Bachelor of Youth and Community Leadership

Other pathways:

- Certificate in Science
- Diploma in Science

Population Health Data Science

Population Health Data Science explores the relationships between the physical environment and our health by using data to find patterns and potential solutions to health problems.

This includes using geomapping health data for air quality in urban areas, mapping disease outbreaks in cities, and calculating traffic accidents.

What will my study involve?

- Complete workshops using data science technologies, and a final-year project working alongside local organisations on public health issues.
- Access to state-of-the-art computer and software labs with UC's connections with Manawa Health Hub and research centres such as Te Taiwhenua o te Hauora | GeoHealth Laboratory.

Courses

You will begin your studies learning the basics of data science and geomapping software, and investigate the ways environment and population can affect health and wellbeing of communities.

Topics can include:

- origin, distribution, and patterns in disease
- emergency and risk modelling
- spatial data technologies
- economic, social, and cultural processes.

canterbury.ac.nz/courseinfo

Career opportunities

Data scientists are in demand as it is an area of work that faces significant skills shortages globally. Study in Population Health Data Science provides you with a strong foundation in health sciences with data science methodologies.

With environmental and economic changes affecting the globe, your skills in this degree will help combat our rising health challenges and environmental contamination.

Career pathways could include:

- health researcher
- intelligence advisor
- data scientist
- disaster response advisor.

canterbury.ac.nz/life/jobs-and-careers

Study Population Health Data Science:

- Bachelor of Data Science

Psychological Wellbeing

This subject delves into health-related behaviours, developmental disorders, and the science and practice of wellbeing and professional psychological practice.

You will take a holistic view of wellbeing based on latest research, so you can help people and communities thrive.

What will my study involve?

- Explore the behavioural science and stressors behind our mental health and wellbeing issues and how we respond to them.
- Examine and critique the latest research on emerging disorders, assessments, diagnosis, and treatments.
- Gain observation and lab experimentation skills, including a final-year project course in a real-world context.
- Learn about the intersection of culture and psychological wellbeing and examine the impact of your own culture, values, beliefs, and assumptions on professional practice.

Courses

Your courses will focus on understanding current psychological models and research on holistic wellbeing and how these are used by psychologists to help people make positive changes in their lives.

You will also learn about current research into developmental patterns, disorders, and treatments, and distinguishing evidence-based theories from popular misconceptions about mental health.

Topics can include:

- psychological models of wellbeing
- the professional role of psychologists (including ethical and legal responsibilities within development, treatment, and prevention in mental health)
- self-reflection and experiential learning of your own practice.

canterbury.ac.nz/courseinfo

Career opportunities

By learning about the science behind wellbeing, developmental disorders, and the impact of cultural and environmental factors on wellbeing, you will be able to 'see' a person beyond just their symptoms, and offer practical solutions to improve their life.

Career pathways could include:

- counselling
- statistical or clinical research
- clinical psychology
- government and healthcare agencies.

canterbury.ac.nz/life/jobs-and-careers

Study Psychological Wellbeing

- Bachelor of Psychological Science

Professional and Community Engagement

Professional and Community Engagement (PACE) courses are all about applying what you learn in your studies to a non-academic "real-world" setting.

PACE is an ideal complement to your degree – take it as a one-off course or as a minor in your degree programme. PACE courses provide an opportunity to give you confidence in the workplace.

What will my study involve?

- Half of PACE courses are held as workshops where you can develop professional skills and half in the workspace where you can put that knowledge to use.
- You will be matched with your internship based on your studies and your interests. Past internships include media and communications, event organisation, marketing, health, and policy analysis.

Courses

From second year, you can add a workplace project or an internship to your studies.

Topics can include:

- internship projects (based on your degree subject)
- project management process
- career development portfolio and CV building
- presentation skills.

canterbury.ac.nz/courseinfo

Career opportunities

PACE students have an edge over other graduates. Learning to identify the strengths you bring to the workplace and understanding how your degree has prepared you to work with local and international communities will give you the confidence you need to enter your new career.

canterbury.ac.nz/life/jobs-and-careers

Study PACE:

PACE can be taken as a one-off course in many degrees, or studied as a minor in some degrees. Learn more about PACE on our website.

Psychology

Psychology is the scientific study of behaviour and associated biological, cognitive, and social processes in humans and other animals.

Studying Psychology will explore how the brain works, and looks into theories to gain an understanding of behaviour in individuals and groups.

What will my study involve?

- Explore a range of psychopathologies such as anxiety, depression, and addiction with leading experts and researchers.
- Practical lab work where you will be able to perform physical assessments.
- UC has a Psychology Clinic where you can receive training, and has working relationships with Te Whatu Ora Health | New Zealand Waitaha Canterbury, and Ara Poutama Aotearoa | Department of Corrections, offering opportunities for research and clinical internships.

Courses

Begin your studies with the basics of psychology — the science of the brain and personality. Later you will learn more in-depth topics in psychology and develop your data and analytical skills.

Topics can include:

- biological psychology
- social change and learned behaviours
- neurodiversity
- forensic and criminal psychology.

canterbury.ac.nz/courseinfo

Career opportunities

Studying Psychology at UC will open up careers in many different fields due to the unique set of skills you learn. Further postgraduate study can lead to professional registration as a child and family psychologist or clinical psychologist.

Career pathways could include:

- police, corrections, and other public sectors
- district health boards
- public relations and marketing
- social service agencies.

canterbury.ac.nz/life/jobs-and-careers

Study Psychology:

As a Major:

- Bachelor of Science
- Bachelor of Arts
- Bachelor of Health

As a Minor:

- Bachelor of Arts
- Bachelor of Commerce
- Bachelor of Digital Screen with Honours
- Bachelor of Health
- Bachelor of Product Design
- Bachelor of Science
- Bachelor of Social and Environmental Sustainability
- Bachelor of Sport
- Bachelor of Youth and Community Leadership

Other pathways:

- Certificate in Arts
- Certificate in Health Sciences
- Certificate in Science
- Diploma in Arts
- Diploma in Health Sciences
- Diploma in Science

Psychology for Common Good

Be introduced to the psychology behind environmental, social, and cultural behaviours that influence us as a collective, and learn how to change them.

Your study will explore a range of behaviours including interactions through social media platforms, stress, psychopathology, relationships through an Aotearoa lens and wider worldviews.

What will my study involve?

- Explore factors that change how people feel and interact with the world — from personal health and environment to global effects such as economics, and politics.
- Learn how we can create solutions to large-scale issues that affect our collective psychological wellbeing, such as exposure to social media and online culture, climate change, and security.
- Use psychological practice and research to find ways to support quality of life changes, such as promoting healthy habits, coping with stress, and advocating for vulnerable communities.
- Gain real-world experience through a final-year project addressing a community issue.

Courses

Your studies will focus on the intersection between behavioural science and our wider environment, developing a strong foundation on personal and socio-cultural factors and how they influence thoughts and behaviours. You will also gain professional skills through projects and practical assessments.

Topics can include:

- principles of behaviour change
- promoting healthy habits and mental health awareness
- macro-scale issues and global wellbeing like climate change, national identity, social movements
- social media influence.

canterbury.ac.nz/courseinfo

Career opportunities

Your knowledge of physical and mental health trends across large groups and communities will make you especially useful in roles that work towards creating awareness through research and programmes at personal and higher levels - including global efforts for change.

Career pathways could include:

- counselling
- government consulting and research
- advocacy
- strategy and policy work.

canterbury.ac.nz/life/jobs-and-careers

Study Psychology for Common Good:

- Bachelor of Psychological Science

Spatial Data Science

Spatial Data Science is an emerging field that combines art and science to explore spatial geographical data through visual and computational technologies to understand why activities and events occur in certain environments or spaces.

You will gain knowledge in Geographic Information Science (GIS) including using digital cartography, remote sensing, geomapping, and other visual data interfaces to interpret and analyse insights from the data. This can be helpful in conducting search and rescue operations, predicting potential disaster outcomes, planning smart cities, and more.

What will my study involve?

- Gain skills in spatial thinking and reasoning, analysis using computation tools, advanced programming and coding, and in using geographic data software.
- You will have access to computer and software labs, and conduct fieldwork at UC's field stations in Cass and Kawatiri Westport, or climate stations in Kā Tiritiri-o-te-moana Southern Alps and throughout Te Waipounamu South Island.

- Benefit from our research centres that utilise spatial data sciences, with specialist centres including Toi Hangarau | Geospatial Research Institute, and Te Pokapū Pūhanga Wāhi Spatial Engineering Research Centre.

Courses

First-year courses will introduce you to the processing, analysis, and visualisation of spatial data.

Topics can include:

- digital maps and 3D visual data
- prediction and forecasting
- remote sensing for unmanned vehicles eg, drones, self-driving cars
- social and physical effects on the earth's surface.

canterbury.ac.nz/courseinfo

Career opportunities

There is a high demand for graduates with data science skills. Spatial Data Science is utilised throughout government organisations and industry sectors including finance, retail, construction, and the primary sector.

You can apply the knowledge and practical skills you gain through this major to social and health services, government, transportation, research, marketing, and many more areas.

Career pathways could include:

- space matter analyst
- smarter cities planner
- endangered species migration mapping
- search and rescue operations.

canterbury.ac.nz/life/jobs-and-careers

Study Spatial Data Science:

- Bachelor of Data Science

Statistics

Statistics makes sense of data using mathematical modelling to explain what is observed and to predict what is yet unknown.

There are many areas in which statistics helps us to understand what is going on and to predict what is likely to happen in the future, from climate change to the economy to medicine.

What will my study involve?

- Learn statistical processes and techniques, including collecting data, choosing methods, and communicating results.
- Take part in research and projects while working with visiting experts, research centres, and potential employers.
- Study Statistics in a wide range of degrees to add data knowledge to your other interests.

Your first-year courses are introductory and will teach you the basics of statistics, including maths and computer programming. You will get to choose your courses in the later years from a range of topics from algorithms to interpreting datasets to completing your own statistics work projects.

Topics can include:

- software training (eg, R, Python, and Julia)
- computer modelling
- prediction and probabilities
- sampling and survey methods.

canterbury.ac.nz/courseinfo

Career opportunities

Statistics opens up career possibilities in many industries such as finance and insurance, business, government, and research. These institutions and companies are looking for people able to collect the relevant data, model it, and communicate the results.

Career pathways could include:

- epidemiologist
- GIS expert
- data analyst
- risk surveyor.

canterbury.ac.nz/life/jobs-and-careers

Study Statistics:

As a Major:

- Bachelor of Science
- Bachelor of Arts

As a Minor:

- Bachelor of Arts
- Bachelor of Commerce
- Bachelor of Digital Screen with Honours
- Bachelor of Health
- Bachelor of Product Design
- Bachelor of Psychological Science
- Bachelor of Science
- Bachelor of Social and Environmental Sustainability
- Bachelor of Sport
- Bachelor of Youth and Community Leadership

Other pathways:

- Certificate in Arts
- Certificate in Science
- Diploma in Arts
- Diploma in Science

Fieldwork at Cass

Sustainable Coasts

With more than half of the world's population living in coastal zones, many nations are dependent on the ocean to sustain life and economy. In this subject, you will learn how to manage our coastal and marine resources.

Aotearoa as an island nation has a unique history and cultural narrative with its coastal settlements and marine resources, and is a living laboratory for learning how to live sustainably.

Sustainable Coasts offers study in the diverse ecosystems, functions, and dynamic changes of coastlines and ocean life.

What will my study involve?

- Explore the biological, geographical, and social effects of coasts and surrounding urban and natural environments, and find sustainable solutions for their preservation and ongoing use.
- Examine long-term effects on coastal climates, including rising sea levels, erosion, over-fishing, and debris pollution.
- Practical work including field trips to UC's field stations, and work experience in your final-year of studies where you apply your learning as part of your degree.
- The Bachelor of Environmental Science with Honours is accredited by the Environment Institute of Australia and New Zealand (EIANZ) to deliver environmental practitioners for roles in industry, government, education and research, and the community.

Courses

First year courses give you an introduction to biology, ecology, and geographic sciences. From second year, you will take courses towards your major, learning about marine biology, ecology and human history with coasts.

Topics can include:

- marine biology
- beach, sea, and shore biospheres
- urban coastal regions
- natural hazards and disasters.

canterbury.ac.nz/courseinfo

Career opportunities

Sustainable Coasts graduates are in demand due to the range of environmental issues we are facing as a result of climate change, pollution, and loss of biodiversity. Completing this degree will give you the knowledge to help solve these environmental issues.

In addition, you will have developed a range of skills including collecting and analysing data, developing mitigation plans, and evaluating and responding to environmental policies and plans.

Career pathways could include:

- environmental scientist
- field technician
- resource management officer
- disaster management and response.

canterbury.ac.nz/life/jobs-and-careers

Study Sustainable Coasts:

- Bachelor of Environmental Science with Honours

Water Science and Management

Sustainability and management of our valuable water resources (both supply and quality) is one of the biggest challenges facing Aotearoa New Zealand today.

Water Science and Management studies investigates sustainable techniques to protect our water and prevent further stresses and hazards upon this vulnerable commodity.

What will my study involve?

- Learn to evaluate the effects of domestic and commercial use on our aquatic ecosystems through practical survey fieldwork.
- Benefit from the teaching and research work of leading staff from both UC and Te Whare Wānaka o Aoraki | Lincoln University within the Waterways Centre for Freshwater Management. The courses provide a pathway to UC's specialist postgraduate programmes in Water Science and Management.
- Fieldwork forms an integral part of Water Science and Management courses through UC's Cass Field Station.

Courses

While you cannot major or minor in Water Science and Management as an undergraduate student, you can take courses in the subject as part of some degrees.

Topics can include:

- freshwater resources and field skills
- water resource management
- water policies and planning
- environmental risk assessment.

canterbury.ac.nz/courseinfo

Career opportunities

Studies in Water Science and Management provides opportunities to pursue careers in freshwater science and management, and in a variety of other fields of biological sciences.

canterbury.ac.nz/life/jobs-and-careers

Study Water Science and Management:

Cannot be studied as a major or minor, but you can take these courses as part of any degree.

Workplace Psychology

Apply psychological practice to the workplace to understand to understand employee needs and the impact of their attitudes, and behaviours on organisational performance and behaviours on organisational performance.

You will also examine multiculturalism in the workplace and learn how to build diverse teams and working relationships.

What will my study involve?

- Explore common psychological trends and experiences at the workplace, burnout, stress, recognition, and the research behind causes, effects, and solutions.
- Learn how to work with individuals and groups in the workplace to support their growth and wellbeing.
- Learn to identify and apply methods and tools used in organisational psychology.
- Through a final-year professional practice course, labs, and self-reflection, you can work on your emerging professional skills.

Courses

You will be introduced to the theory and practice of organisational psychology, and business culture, and explore the link between employee perceptions, behaviours, and performance.

Topics can include:

- mental health at the workplace
- personality, strengths, and skills assessments
- supporting outcomes and worker satisfaction
- navigating organisational changes.

canterbury.ac.nz/courseinfo

Career opportunities

Studies on business culture and psychology will make you highly valued in every sector, as we spend large quantities of our daily lives at the workplace.

Your knowledge around cause and effect on people's wellbeing will also prepare you for roles in coaching others, managing changes and strategies, and working with a diverse culture of people.

Career pathways could include:

- industrial and organisational psychology
- management
- human resources
- professional training and development.

canterbury.ac.nz/life/jobs-and-careers

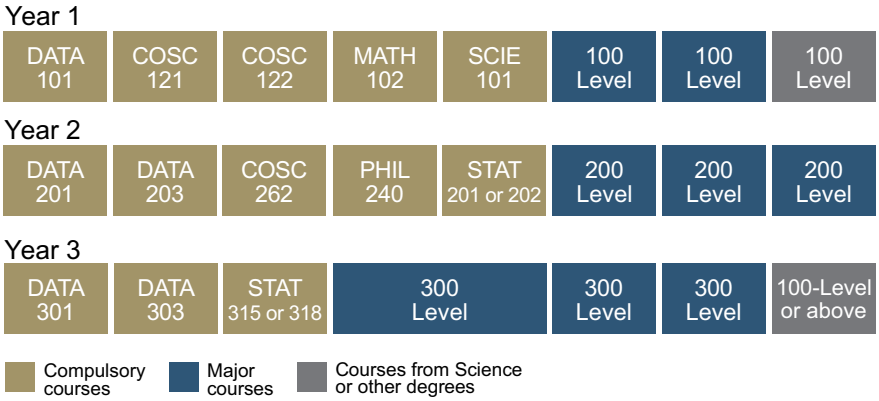
Study Workplace Psychology

- Bachelor of Psychological Science

Tohu Qualifications

Bachelor of Data Science. BDataSc

Bachelor of Data Science – example degree structure



Each small block represents a 15-point course. However, some courses may be 30 points or more.

Data is used by organisations of all sizes to make better decisions. In this degree, you will learn how to analyse and interpret data to inform decision-making and forecast trends.

This degree will teach you about secure and ethical ways to collect, store, and process large amounts of data — as well as how to understand and communicate findings by turning numbers into actionable outcomes.

As data is at the centre of every industry, you can use your diverse skillset across many fields.

Study information

Subjects
Bioinformatics
Business Analytics
Data Science
Population Health Data Science
Spatial Data Science

The first year of your degree includes introductory courses in programming, mathematics, statistics, and computer sciences. You will also do hands-on lab work and group projects.

In the final year, you will complete a research project aimed at solving a particular industry or community problem.

Highlights

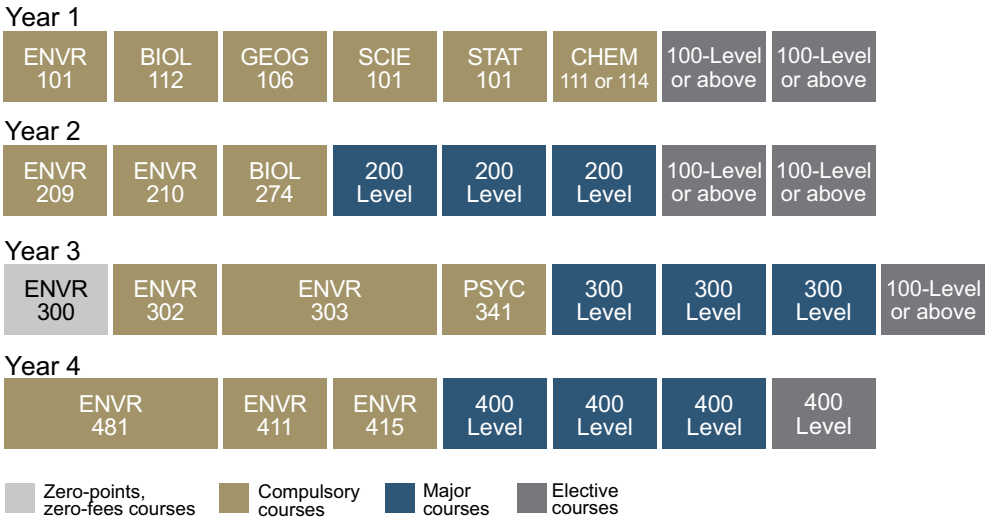
- Depending on your chosen major, you will have a range of practical learning experiences that may take place from our modern laboratories to our field stations.
- Project work in your final year will give you real world experience in applying data science to create workplace solutions.
- We have research centres that specialise in data science, with projects like climate change prediction models in Antarctica, geospatial mapping for urban planning in rural Aotearoa, and VR simulation training systems for firefighters.

Career ready

- Project work in your final year involves applying data science to create solutions.
- Gain skills in project implementation, research, critical analysis, problem-solving, and communication to discuss and explain data findings.
- Graduates will be ready to work in roles such as data scientist, analyst, software architect, IT consultant, business analyst, statistician, software developer, and more.

Bachelor of Environmental Science with Honours. BEnvSci(Hons)

Bachelor of Environmental Science with Honours – example degree structure



Each small block represents a 15-point course. However, some courses may be 30 points or more.

This degree will give you skills and the practical learning you will need to address the pressing environmental issues we face — in Aotearoa New Zealand and globally.

Various disciplines of science intersect in this programme to create a layered understanding of the complex sustainability challenges we are facing like freshwater resources, marine contamination, coastal erosion, biosecurity, natural disasters, and climate change. You will assess impacts resulting from disasters, ecological change, and human activity.

The BEnvSci(Hons) is accredited by the Environment Institute of Australia and New Zealand (EIANZ) to deliver environmental practitioners for roles in industry, government, education, research, and community.

Study information

Subjects
Ecosystem Health and Biosecurity
Environmental Change
Environmental Contamination
Environmental Hazards and Disasters
Freshwater
Sustainable Coasts

The first year of your degree includes introductory courses in biophysics, ecology, and geographic sciences.

From second year onwards, you will take courses towards your major and gain hands-on experience through labs, fieldwork, and internship placements.

Highlights

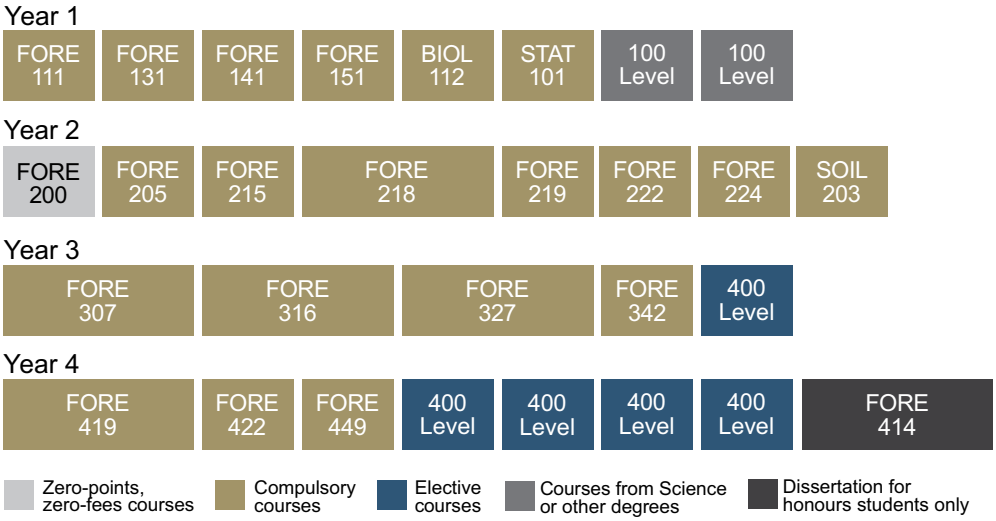
- This degree combines mātauranga Māori and scientific knowledge to broaden your understanding and approach to environmental issues, using Ki Uta ki Tai From the Mountains to the Sea — the full journey and interconnectedness of the natural world.
- Lab and field-based learning, with 400 hours of work experience.
- Courses cover a variety of subjects to customise your degree with the issues you are most passionate about.

Career ready

- Extensive practical experience in work and field settings.
- Graduates are in demand for their ability to identify, monitor, and solve a variety of problems associated with the environment. They help advise on sustainability, environmental risks, and environmental aspirations.
- Graduates will be ready for roles such as consultants, policy analysts, disaster and crisis response management, and researchers for contamination, pollution, and invasive species.

Bachelor of Forestry Science. BForSc

Bachelor of Forestry Science – example degree structure



Each small block represents a 15-point course. However, some courses may be 30 points or more.

The BForSc is a professional degree that prepares graduates for managing forest resources by combining core science courses with management, commerce, and technology.

Forestry Science graduates are highly sought after by employers and follow exciting and rewarding career paths.

Study information

In your first year, you will study six compulsory courses (plus 30 points in electives) to gain a strong foundation in the science and commercial aspects of forestry.

From second year, you will further apply this knowledge with compulsory courses including forest engineering, forest economics, forest biology, and silviculture.

Highlights

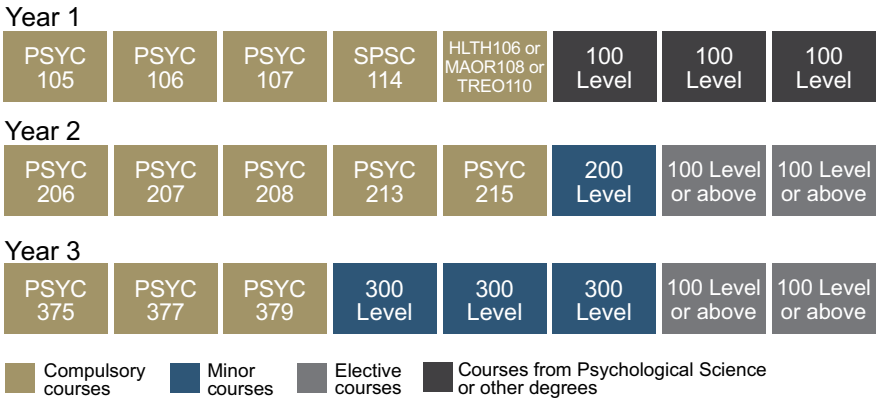
- Small class sizes create a high-quality learning environment.
- UC has field stations located near Arthur's Pass and at Kawatiri Westport for forestry teaching and research.
- Participate in an exchange programme with top forestry schools in Canada and the United States.
- With strong employer links, the majority of graduates are employed before finishing their degree.

Career ready

- Benefit from hands-on learning with 90 days industry work experience.
- Gain skills in forestry management, sustainability, marketing, and research.
- Graduates are working in forest management, conservation, harvesting, wood processing, biosecurity, policy, iwi advisory, and more.

Bachelor of Psychological Science. BPsycSc

Bachelor of Psychological Science – example degree structure



Each small block represents a 15-point course. However, some courses may be 30 points or more.

The BPsycSc offers study in all disciplines within psychology - the field of human thought, growth, and capability.

You will examine how our brains function, and how and why changes in our environment, culture, and relationships can influence our behaviour and overall wellbeing. Through a minor subject, you will focus your study in a particular area of psychology — from brain and behavioural disorders to workplace and forensic psychology.

Study information

Specialisations
Forensic Psychology
Māori and Indigenous Perspectives
Neuroscience and Cognition
Psychological Wellbeing
Psychology for Common Good
Workplace Psychology

The BPsycSc has introductory and specialised courses in different areas of psychology, including a final-year community project.

As well as the core Psychology courses throughout the three years of the degree, you will also study towards a minor, and have the option of adding a second minor.

Highlights

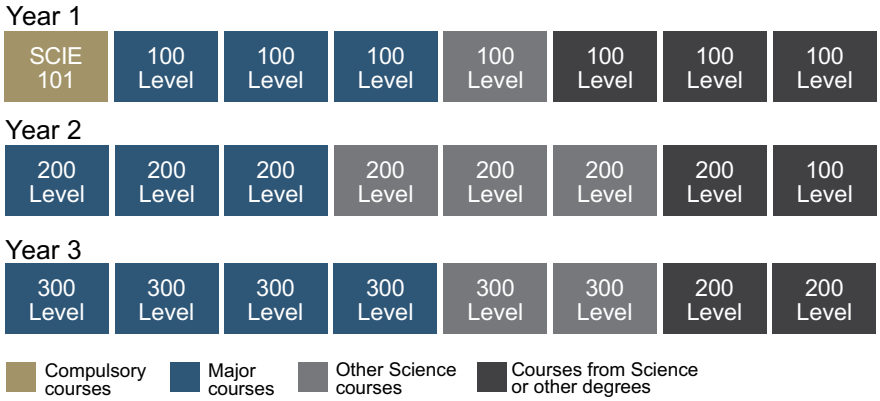
- Explore the human mind and how this affects everything about our behaviour, identity, and interactions with the world.
- Develop your observational skills, technical and lab abilities, and ethical knowledge of psychology practice as a professional career.
- Choose from specialised minors and customise your degree in areas such as neuroscience, mental health, and forensics and criminal psychology.
- Learn from industry professionals throughout study and complete a final-year work experience course based in the community.

Career ready

- Gain experience with a final-year project working with community and industry partners.
- Learn the skills to improve mental health and wellbeing, communication, scientific research, and your own professional identity.
- Graduates work in psychology and healthcare, in local and central ministries, and non-governmental organisations.

Bachelor of Science. BSc

Bachelor of Science – example degree structure



Each small block represents a 15-point course. However, some courses may be 30 points or more.

A BSc is about understanding and improving the natural world through observation, experimentation, modelling, and calculation.

You will investigate the big issues confronting our planet, including climate change, human health and diseases, the global water crisis, food security, and environmental protection.

A BSc will expose you to new ideas and technologies, develop your research skills, and help you make a contribution to the challenges facing our world.

Study information

Subjects	
Astronomy	Geology
Biochemistry	Linguistics
Biological Sciences	Mathematical Sciences Education
Chemistry	Mathematics
Computer Science	Medicinal Chemistry
Economics	Philosophy
Environmental Science	Physics
Finance	Psychology
Financial Engineering	Statistics
Geography	

Highlights

- Learn from a wide network of field stations reaching from Antarctica to Nigeria and throughout Aotearoa.
- 'Do science' right from the first semester of your first year. We have access to the most field stations of any Aotearoa university and offer a range of hands-on practical experiences, research projects, and lab and fieldwork.
- Global study experiences, including exchanges to partner universities.
- You can choose to take a minor in Science, or from additional subjects in Arts, Commerce, Digital Screen, Health Sciences, Product Design, Sport, or Youth and Community Leadership.

Career ready

- You will get hands-on practical and clinical learning experiences, from the lab to the field.
- Gain project management, critical thinking, and research skills alongside practical knowledge of your chosen major in Science.
- A BSc sets you up to pursue a wide range of careers all over the world — from marine biologist to aerospace engineer, and much more. It can open doors to many other careers, including business, politics, medicine, finance, and engineering. With a BSc, anything is possible.

Ka whai ake nei
Next Steps

Key dates

May/June/July

Hui Tairanga Information Evenings

July

Scholarship applications open

September

Rā Tōmene | Open day

August

Accommodation applications open

October

Enrol into courses

Some degrees and subjects like Speech and Language Pathology have additional application processes and dates. For exact information, please visit the UC website or contact a Future Student Advisor.

Tautoko | Get support

From the moment you arrive on campus to your graduation, UC has support available every step of the way.

Te Pātaka | Student Services Hub is your go-to support centre, located on levels 2 and 3 in the Puaka-James Hight building (central library). You will find both academic and wellbeing services in one location and they will connect you to the relevant support teams.

You can receive help with anything you need, whether that's for study and exams, health, sport, counselling, injuries, job search, and more.

Read more about all the support services:

Your students' association

Te Rōpū Ākonga o Te Whare Wānanga o Waitaha | University of Canterbury Students' Association (UCSA) is a non-profit organisation that helps all students find support and feel like they belong at UC.

We have more than 160 clubs and regularly host events on campus.

We offer advocacy services, dental and optometry services, welfare and financial services, advisory groups, class reps, and more.

ucsa.org.nz

Pastoral Care

The Education (Pastoral Care of Tertiary and International Learners) Code of Practice 2021 is designed to guide institutions in their practice and to protect students when they study in Aotearoa. UC is a signatory to the Code and is required to meet the standards set by the New Zealand government.

"Within my class, we're all very much a whānau. We've built a connection, going from strangers to family, which is a credit to our teachers for creating that environment of safety and belonging — that's whanaugatanga. And tiakitanga reminds me of the whole UC experience — everyone doing what they can."

QeyLoux
Ngāti Kurī, Kāi Tahu, Ngāti Porou
Ako: Bachelor of Teaching and Learning in Mātauranga Māori

Whakapā mai | Contact us

Get in touch

If you would like more information about what you can study at UC, contact the Future Students Office:

Te Whare Wānanga o Waitaha University of Canterbury

T: +64 3 369 3999
Freephone in NZ: 0800 VARSITY (827 748)
E: info@canterbury.ac.nz
AskUC Chat is available between 8am–5.15pm Monday–Friday (except NZ public holidays).
canterbury.ac.nz

Talk to a UC student

Get answers to your questions about what it's like being a student at UC, and life in Ōtautahi Christchurch.

UC social media

facebook.com /universitycanterbury

instagram.com/ucnz

x.com/ucnz

snapchat.com/add/uc.nz

youtube.com /UniversityCanterbury

linkedin.com/school /university-of-canterbury

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MATATŪ

STUDENT VOLUNTEER ARMY

UNIVERSITY OF CANTERBURY YOUNG NEW ZEALANDER OF THE YEAR

WORD CHRISTCHURCH FESTIVAL

Rā Tōmene Open Day

Discover your degree options.
Explore our campus.
Experience student life.

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5 September 2025

For more information, contact a Future Student Advisor.

UC UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha