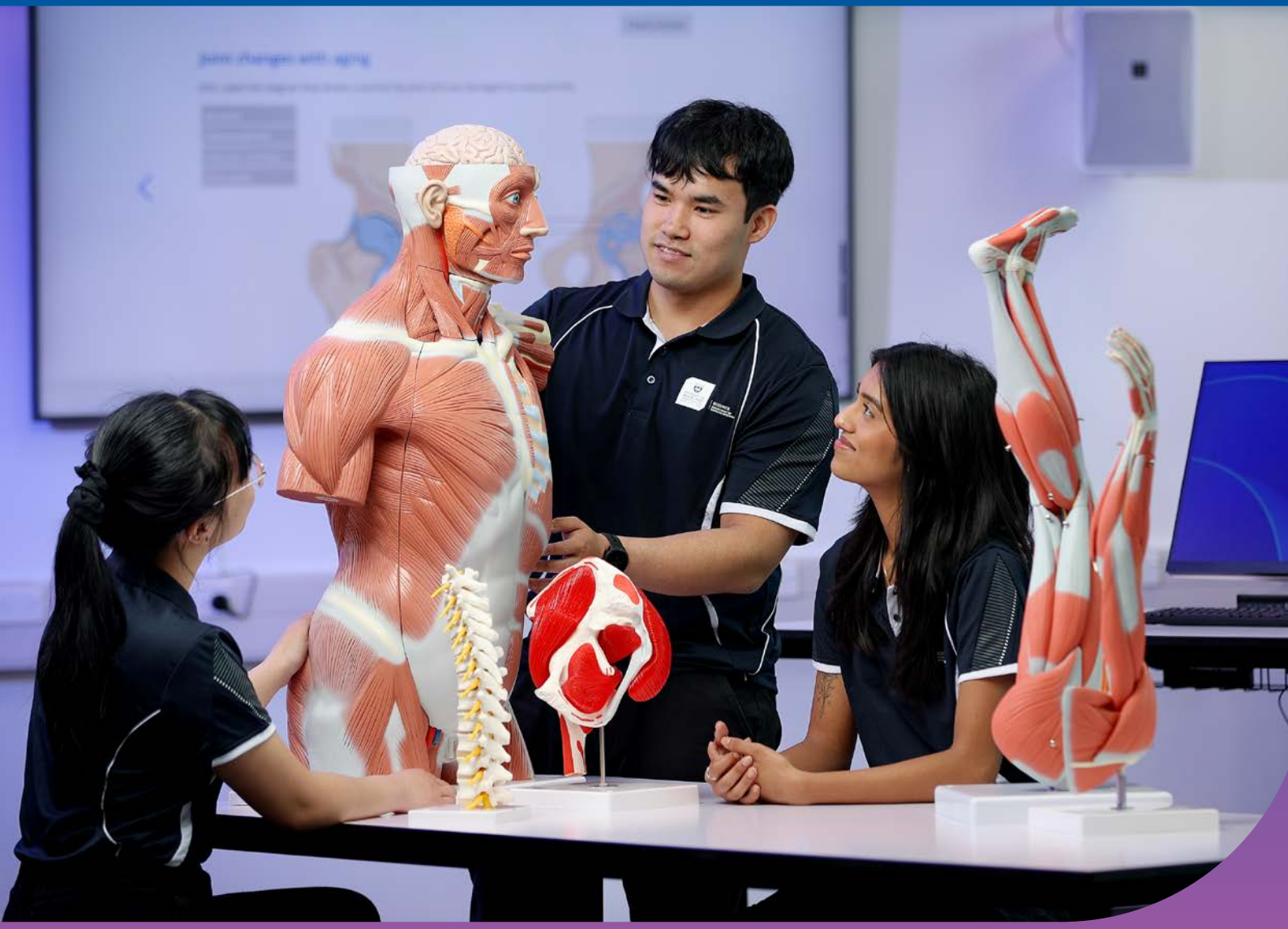
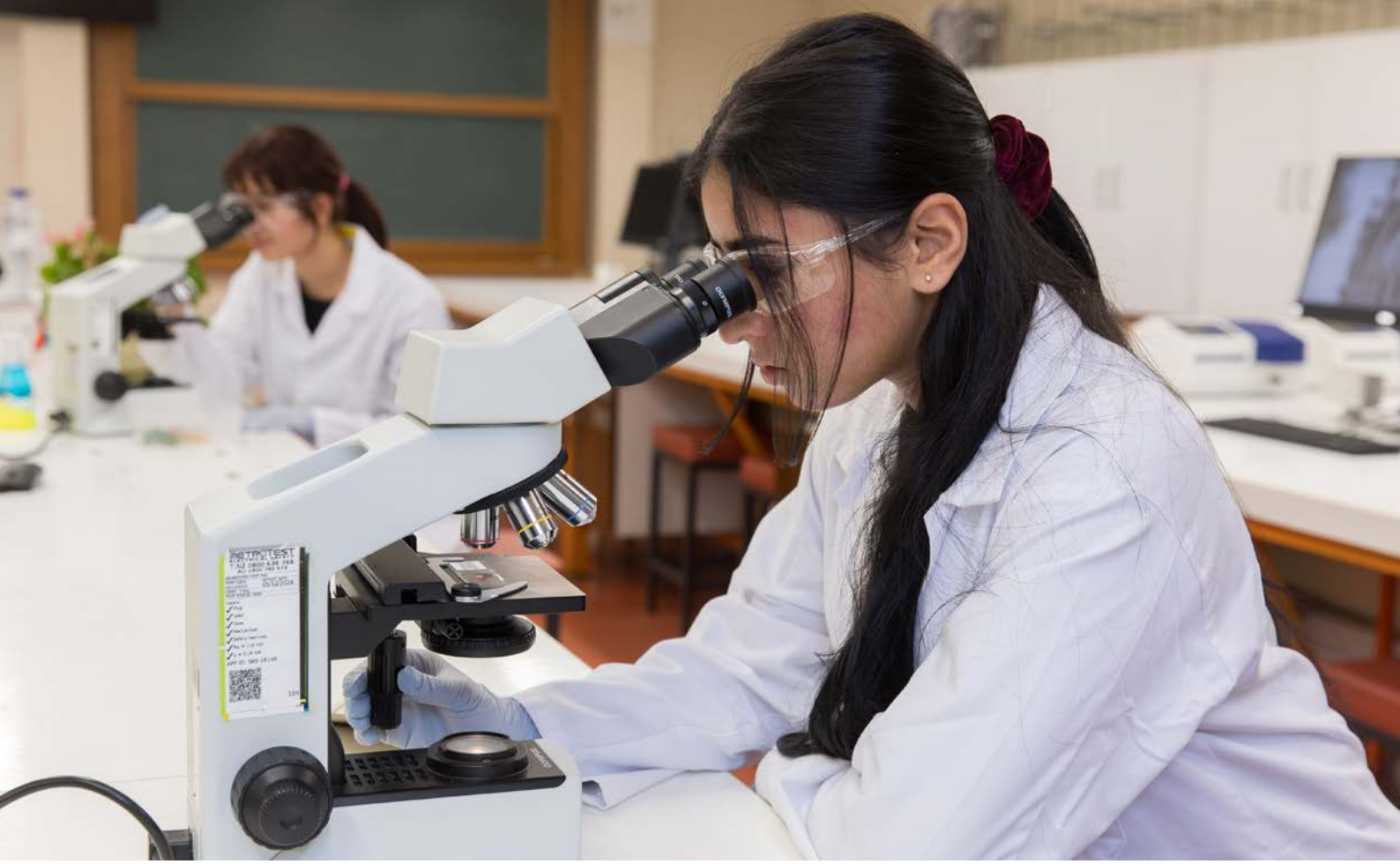
Waipapa Taumata Rau
University of Auckland

# Exciting changes in

# Science from 2027

**Designed to be future-ready, the Bachelor of Science (BSc) equips students with foundational scientific knowledge, practical skills, and the flexibility to pursue a wide range of postgraduate study and career pathways.**





# New health majors in Science

**From 2027 there will be more pathways in Science for students that would like to pursue health-related disciplines. Six BSc health majors offer a year one entry pathway into the following year two clinical programmes: Medicine, Pharmacy, Optometry and Medical Imaging (Honours).**

**Year 1**
**BSc**
*With health major(s)*

## Year 2 Non-clinical

**BSc** → **BSc(Hons)** / **PGDipSci** → **Masters degree** → **PhD**

## Year 2 Clinical Health Programmes

*Clinical selection*

| | | |
|---|---|---|
| **Bachelor of Medical Imaging (Honours)** | **3 YEARS** BMedimag(Hons) |
| **Bachelor of Medicine and Bachelor of Surgery** | **5 YEARS** MBChB |
| **Bachelor of Optometry** | **4 YEARS** BOptom |
| **Bachelor of Pharmacy** | 3 YEARS followed by a one year internship BPharm |

*Apply by 1 July of first year for entry in next year.*

**To be eligible for clinical selection, you must enrol in a BSc in at least one of the following six health majors:**

## Cell and Molecular Bioscience

Cell and Molecular Bioscience is at the centre of exciting advances in biotechnology, genetics, medicine and conservation. You will study microbes, plants, animals and humans – from molecular machines to gene editing, cellular therapies to drug discovery. You will gain the tools to understand how living things work at the level of cells, DNA, RNA and proteins, and to use that knowledge to solve real world problems.

## Nutrition

Nutrition is the science of how food influences human health and wellbeing at every stage of life. It spans the biological functions of nutrients, the social and cultural dimensions of eating and the way social and environmental factors shape health outcomes. Studying Nutrition empowers you to understand the relationship between diet and health, prevent disease and support healthier communities.

## Medicinal Chemistry

Medicinal Chemistry is the study of the design, biochemical effects and ethical aspects of drugs for the treatment of disease. You will build a strong foundation in drug synthesis, with practical knowledge of data analysis, biochemical processes, drug formulation and metabolism, and key regulatory practices like clinical trials and intellectual property. It is one of the most rapidly developing areas within the discipline of chemistry, both globally and locally.

## Exercise Sciences

Explore how and why humans move, including physical activity, rehabilitation, sport and movement as contributors to sustainable health. Exercise Sciences ties together and builds on multi-disciplinary courses in human anatomy and physiology, biomechanics and computational movement science, exercise and sport psychology, and movement neuroscience.

## Pharmacology

Pharmacology is the study of biologically active chemicals that can be used to modify, cure or prevent illness. It is the science at the heart of the discovery and testing of potential therapies through the drug development process. You will learn the core principles of pharmacology, including how drugs affect the body and how the body processes medicines, to support safe and effective use.

## Physiology

Physiology sits at the heart of the life sciences, explaining every heartbeat, thought and movement. It reveals how the body's finely tuned systems work together - and how their disruption leads to disease. From uncovering how cells transform energy, to understanding why disease disrupts normal function, you will gain the scientific insight needed to contribute to tomorrow's breakthroughs in medicine, research and technology.

**These majors provide clear pathways into clinical health programmes and broaden options for research or non-clinical careers.**

**You must be enrolled in one of the six health majors and complete the following four common courses. A combined GPA of at least 6 across these courses and a B or higher grade across all eight courses will make you eligible into selection into clinical programmes***

| CHEM 190 | MEDSCI 142 | BIOSCI 107 | POPLHLTH 111 |
|---|---|---|---|

**You also need to complete a Waipapa Taumata Rau (WTRSCI 100) course.**

*** Students who do not seek clinical selection can take health majors without completing the four common courses above, or WTRSCI 100.**

**The BSc is a flexible degree that allows you to take non-health subjects alongside your health major, providing the scope to align your study with your interests. Diverse career pathways are available to students who choose not to pursue clinical programmes, or are not selected.**

## Updated admissions requirements

| Programme | NCEA (Level 3) | Cambridge International | International Baccalaureate |
|---|---|---|---|
| Bachelor of Science (BSc) | | | |
| – Health majors | 200 | 200 | 28 |
| – All other majors/specialisations | 165 | 170 | 26 |

## Example degree structure in chosen health major

| SEMESTER ONE | | | | SEMESTER TWO | | | |
|---|---|---|---|---|---|---|---|
| BIOSCI 107 | CHEM 190 | POPLHLTH 111 | NUMERACY/ MAJOR/ ELECTIVE | MEDSCI 142 | WTRSCI 100 | GENERAL EDUCATION OR ELECTIVE | NUMERACY/ MAJOR/ ELECTIVE |

# Other changes in Science

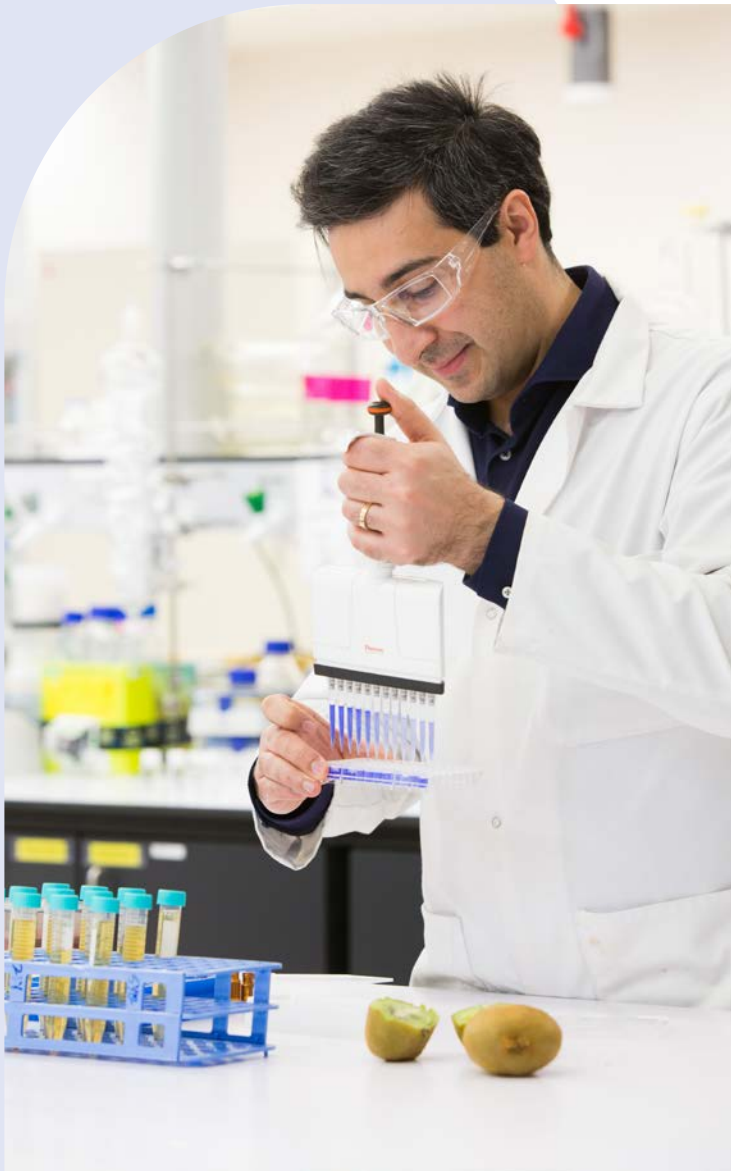
**The following new majors will be available from 2027:**

## Biodiversity, Ecology and Evolution

Study how organisms interact with each other and with their environments, from local ecosystems to global systems, through ecology and evolution. You can explore plants, animals and microbes across terrestrial, marine and freshwater systems. Understanding the biology of whole organisms to ecosystems is the key to addressing the dual crises of biodiversity loss and climate change.

## Food Science

Food Science combines knowledge from disciplines such as chemistry, biology, physics and engineering to help us understand the composition of food and how it behaves - from raw ingredients to the final product. Food Science plays a key role in improving food quality, ensuring safety, driving innovation in food production and addressing real-world challenges related to nutrition, sustainability and the global food supply.



**Expanded opportunities to double major in the BSc.**

**All BSc students will complete a 15-point numeracy course from a selected schedule as part of their degree.**

**The following will be suspended for new admissions from 2027:**

- Biological Sciences major
- Biomedical Science specialisation
- Food Science and Nutrition specialisation
- Medicinal Chemistry specialisation