2025

VICTORIA UNIVERSITY OF WELLINGTON
TE HERENGA WAKA

TOHU PAETAHI MĀTAI RONGOĀ KOIORA

BACHELOR OF

BIOMEDICAL SCIENCE

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Te Herenga Waka—Victoria University of Wellington has been awarded an overall five-stars-plus rating in the QS Stars university rating system, one of only 17 universities worldwide to do so. The University gained a total score of 966 out of a possible 1,000 points across eight audited categories, including maximum points for the employability and inclusiveness categories. Maximum points were awarded for 25 of the more than 30 indicators, including overall student satisfaction; further study; graduate employment rate; international diversity, support, and collaborations; academic reputation; satisfaction with teaching; campus facilities; accreditations; art and cultural investment and facilities; disabled access; scholarships and bursaries; low-income outreach; and student cohort diversity.

TOHU PAETAHI MĀTAI RONGOĀ KOIORA
BACHELOR OF BIOMEDICAL SCIENCE

Pandemics, antibiotic resistance, gene-editing technology, and drug design are some of the biggest challenges—and opportunities—facing our world. The Bachelor of Biomedical Science (BBmedSc) is a three-year degree that helps you develop the skills to embark on a range of scientific research careers and to be engaged in the discovery of vital medical developments.

As a Bachelor of Biomedical Science student at Te Herenga Waka—Victoria University of Wellington, you'll study the relationship between health, humans, and disease. You'll gain a broad foundation, learning about biochemistry, genetics, neuroscience, and reproduction—as well as the cellular and physiological principles that underlie health and disease.

You'll learn from enthusiastic, passionate lecturers who are experts in their fields and are at the forefront of biomedical research and development. Our lecturers are both researchers and teachers, with active research across the fields of cancer, developmental biology, drug development, immunology, neurology, reproduction, and viral diseases. This research is reflected in their teaching and will give you insight into ground-breaking biomedical and clinical research—the perfect foundation for postgraduate study.

If you have an interest in human health and are passionate about making a difference, a BBmedSc could be the first step on your future career path.

ⓘ www.wgtn.ac.nz/bbmedsc


EMERGENCY EVACUATION INSTRU
VICTORIA

CAREERS

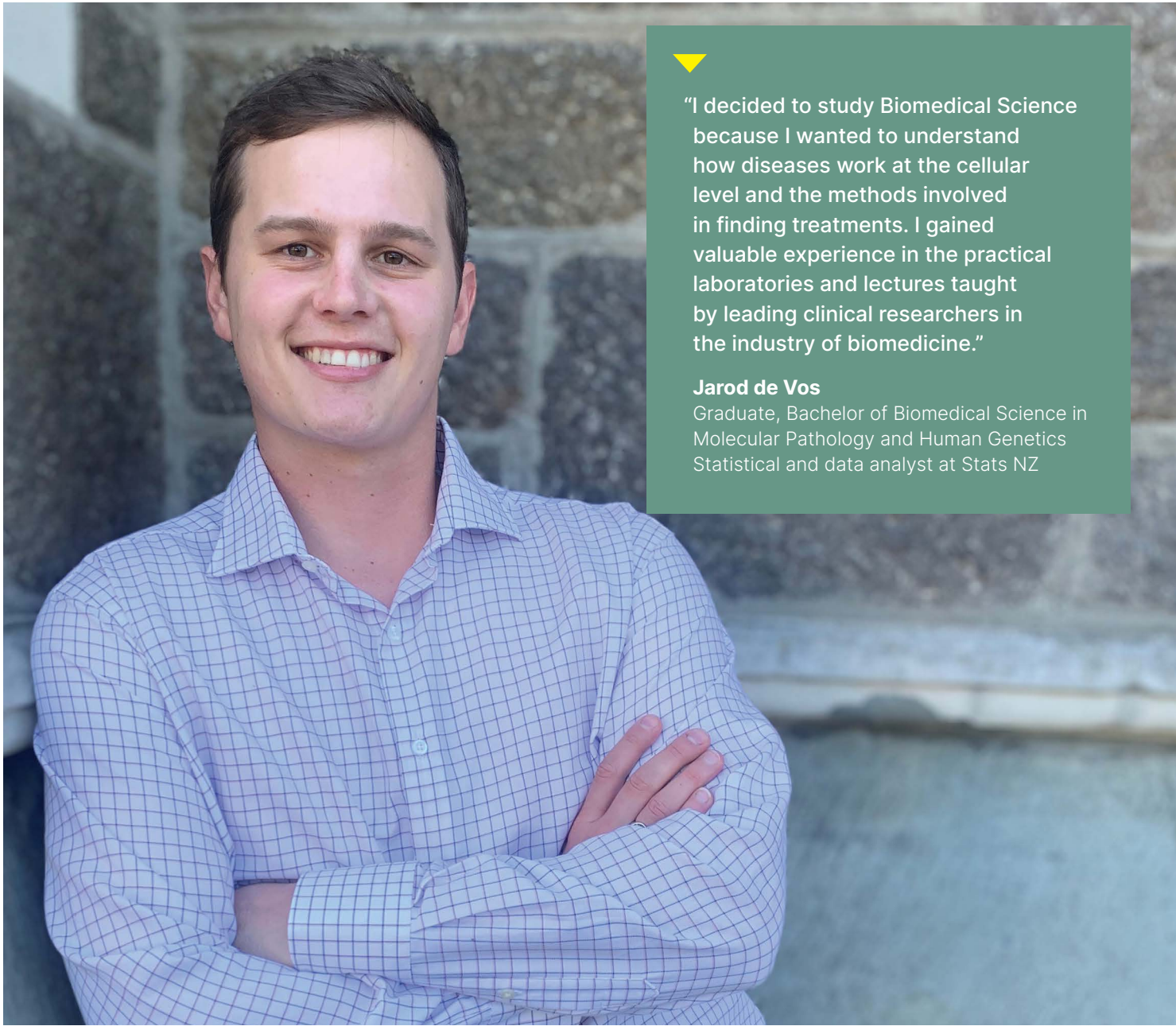
Biomedical Science graduates have the knowledge base to enter a variety of fields, including human genetics research, genetic counselling or management, human fertility and ageing, clinical biochemistry, immunology, molecular pathology, and the development of new pharmaceuticals. Note that some careers may require further qualifications.

Potential jobs include:

- biomedical scientist
- biomedical technician
- cell biologist
- data analyst
- drug discovery and development chemist
- geneticist
- haematology scientist
- immunopathologist
- laboratory technician
- medical laboratory technician
- microbiologist
- molecular biochemist
- patent adviser
- pathology scientist
- policy analyst
- research analyst
- science communicator
- teacher
- university lecturer.

Go to our website to find out more about career paths that start with a Bachelor of Biomedical Science.

www.wgtn.ac.nz/science-careers



"I decided to study Biomedical Science because I wanted to understand how diseases work at the cellular level and the methods involved in finding treatments. I gained valuable experience in the practical laboratories and lectures taught by leading clinical researchers in the industry of biomedicine."

Jarod de Vos
Graduate, Bachelor of Biomedical Science in Molecular Pathology and Human Genetics
Statistical and data analyst at Stats NZ

FURTHER STUDY OPPORTUNITIES

Once you've completed your BBmedSc, you can choose to expand your knowledge with a postgraduate qualification to develop your skills further. Work on building hypotheses, gathering, evaluating, and interpreting data—then putting it all together and communicating your findings. A BBmedSc degree gives you postgraduate options in:

- Biomedical Science
- Clinical Immunology
- Clinical Research
- Drug Discovery and Development.

The degree is also an excellent starting point for medical school, or you may choose a career in a medical laboratory.

ⓘ www.wgtn.ac.nz/mbmedsc

"The summer research programme gave me the opportunity to experience research in a lab environment before the start of my postgraduate studies, which allowed me to gain useful skills that translated to my current research. Additionally, the support for Māori and Pasifika students at the University is excellent. The Pasifika Student Success team, Āwhina, and tutors do a fantastic job at ensuring their students are able to succeed."

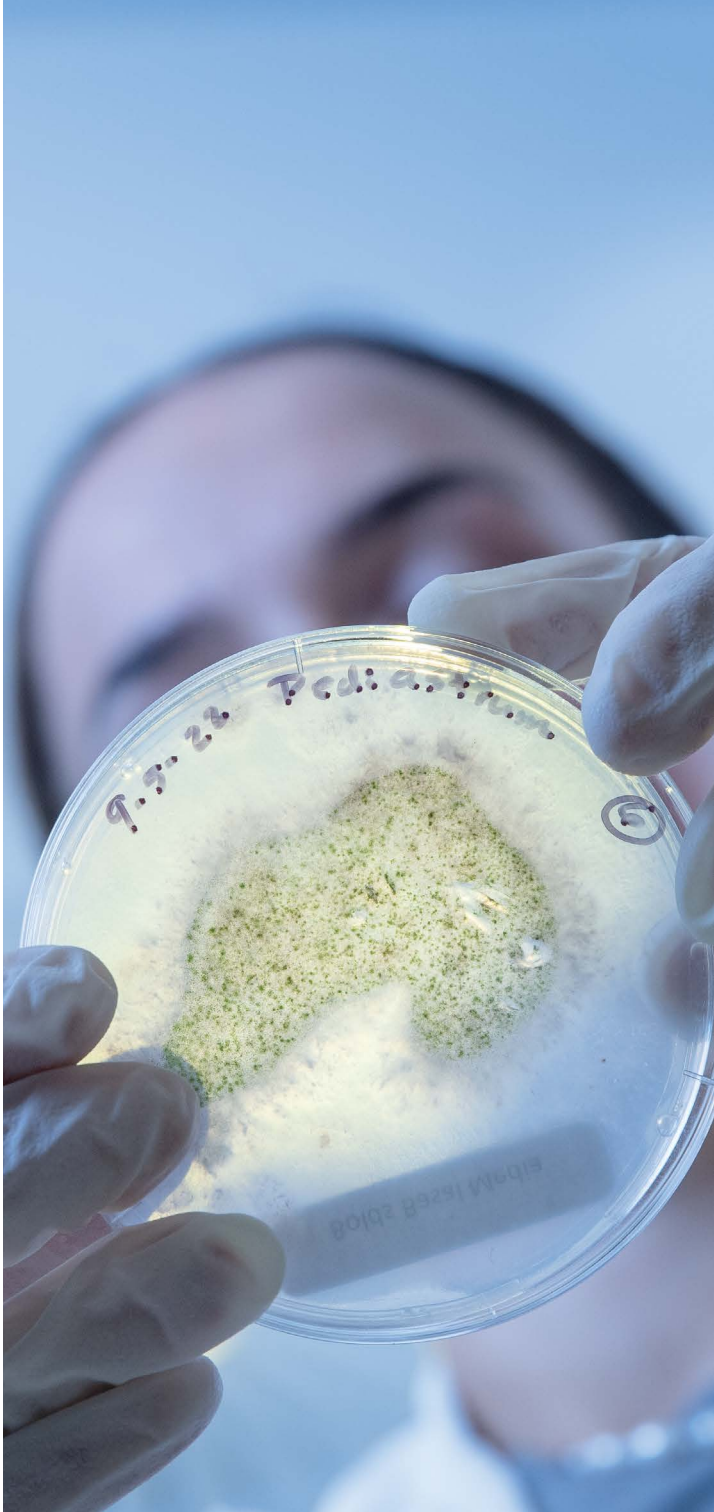
Brianna Mouariki Otto (Arorangi (Cook Islands Māori))
PhD candidate
Graduate, Bachelor of Biomedical Science with Honours in Molecular Pathology

ENTRY REQUIREMENTS

An interest in science and mathematics will go a long way to helping you during your degree, and a background in chemistry is recommended for the BBmedSc. If you feel you haven't studied enough science at secondary school or have not met the NCEA requirements for a subject, there are alternative pathways available—our student advisers can give you more information.

For the latest information on degree and course details, go to our website.

ℹ www.wgtn.ac.nz/bbmedsc



DEGREE STRUCTURE

YOUR FIRST YEAR

You'll study five core 100-level courses that cover the basics of biology—from the chemistry of life to cell biology. You'll learn how individual cells are built, how they work, and how animals and plants develop when cells work together. The courses also cover the basics of the biology of disease and touch on related areas such as Chemistry, Programming, Psychology, and Statistics.

YOUR SECOND YEAR

You'll study how the molecules of life give rise to metabolic processes, how genes control the functions of cells and organs, how cells arrange themselves into an embryo to become a complex adult, and how the organs of your body work together to keep you healthy—and what happens when you get sick.

YOUR THIRD YEAR

You'll advance your knowledge with a focus on biomedical applications that, depending on your major, will prepare you for postgraduate research or a career in human health- and clinical medicine-related fields.

SAMPLE DEGREE PROGRAMME

Example: BBmedSc with a major in Human Genetics

YEAR 1		YEAR 2		YEAR 3	
TRIMESTER 1	**TRIMESTER 2**	**TRIMESTER 1**	**TRIMESTER 2**	**TRIMESTER 1**	**TRIMESTER 2**
BIOL 114 Biology of Animals (15 points)	BIOL 111 Cell and Molecular Biology (15 points)	BIOL 244 Introductory Biochemistry (20 points)	BIOL 241 Genetics (20 points)	BIOL 340 Genes and Genomes (20 points)	BMSC 339 Cellular Regulation (20 points)
STAT 193 Statistics in Practice (15 points)	BMSC 117 The Biology of Disease (15 points)	BIOL 252 Cell and Developmental Biology (20 points)	BIOL 243 Physiology and Pathology 1 (20 points)	BMSC 343 Advanced Genetics (20 points)	Any 300-level BIOL/BMSC/BTEC/ COMP/DATA/PSYC or STAT course (20 points)
Elective course (15 points)	COMP 132 Programming for the Natural and Social Sciences (15 points)	Elective course (20 points)	Any 200- or 300-level BIOL/ BMSC/BTEC/ COMP/DATA/PSYC or STAT course (20 points)	Elective course (20 points)	Elective course (20 points)
Elective course (15 points)	CHEM 121 Chemistry of Life (15 points)				
60 POINTS	**60 POINTS**	**60 POINTS**	**60 POINTS**	**60 POINTS**	**60 POINTS**
120 POINTS		**120 POINTS**		**120 POINTS**	

Total points required: 360

Total points completed: 360

CORE	MAJOR	ELECTIVE

Core: Core courses are the courses you're required to take to complete a Bachelor of Biomedical Science.

Major: A major is the main subject you'll focus on in your degree.

Elective: Elective courses are courses in other subjects you're interested in and don't necessarily need to be related to your major or minor subjects.

MAJORS

HUMAN GENETICS

If you're interested in syndromes and diseases of genetic origin, ageing, human fertility, and genetic counselling, then a major in Human Genetics is right for you. It covers the study of the human genome, epigenetics, the molecular basis and treatment of disease, evolutionary genomics, molecular biology, and recombinant DNA technology. A qualification in human genetics can lead to career paths in genetic counselling, fertility treatment, or health research.

MOLECULAR PATHOLOGY

This major is an introduction to the molecular basis of disease. You'll focus on the organs of the body and the changes that occur in cells, tissue, and organs within the body when humans become ill. You'll learn about ways that biomedical research can be used to detect disease, prevent the spread of disease, and reduce and repair damage caused by disease. This major will suit students interested in clinical biochemistry, forensics, immunology, microbiology, neuroscience, and the relationship between health and disease.

"Studying Biomedical Science provided me with the knowledge and skills to understand human health at a molecular level, and gave me hands-on training in laboratory techniques and equipment, and practical experience in quality control and assurance. My Biomedical Science degree has equipped me to work at the New Zealand Blood Service and help save lives."

Eilizza Jovielle D. Dueñas
Graduate, Bachelor of Biomedical Science majoring in Human Genetics and Molecular Pathology
Medical laboratory technician at the New Zealand Blood Service

MOLECULAR PHARMACOLOGY AND MEDICINAL CHEMISTRY

If you're interested in both chemistry and biology and how substances are delivered through, and dealt with by, the body, then the Molecular Pharmacology and Medicinal Chemistry major is right for you. Your study will focus on aspects of chemistry in relation to our bodies. You'll learn about modern chemical methods for the synthesis of drugs and how they work within a living system. Studying Molecular Pharmacology and Medicinal Chemistry is an important first step to pursuing a career in drug discovery or pharmaceuticals. You could work in research and development for a large multinational company such as Bayer, or combine your degree with Law to become a patent lawyer.

ⓘ www.wgtn.ac.nz/subjects

OTHER MAJORS

Alongside your Bachelor of Biomedical Science major, you can take any of our Bachelor of Science majors—see the inside back cover for a list of available majors. Talk to one of our student advisers if you're interested.

ⓘ www.wgtn.ac.nz/subjects

"I love research, and I love the puzzle of getting to the root of something. I want to make an impact and figure things out."

Dory Kemp
Student, Bachelor of Biomedical Science in Human Genetics and Molecular Pathology

To read more about Dory's journey, scan the QR code.

FIND OUT MORE

- www.wgtn.ac.nz/bbmedsc
- www.wgtn.ac.nz/apply

WHY WELLINGTON?

Te Wāhanga Pūtaiao—Faculty of Science is one of New Zealand's top research institutions, and our teaching staff are some of the most respected in the world. Our University is ranked first in New Zealand for intensity of high-quality research (2018 Performance-Based Research Fund); and we're ranked in the top 150 in the world for science subjects including Development Studies, Earth and Marine Sciences, Geography, and Psychology (2023 QS World University Rankings by Subject).

Our career-focused curriculum and relationships with industry and government will prepare you for success in your chosen field and give you the chance to make a difference. We're home to several leading research institutes—you might learn from someone who is developing vaccines at the Malaghan Institute of Medical Research (the country's largest private medical research institute), designing sustainable technology at the MacDiarmid Institute for Advanced Materials and Nanotechnology (New Zealand's top research institute in materials science), or researching climate change at Te Puna Pātiotio—Antarctic Research Centre.

ADMISSION AND ENROLMENT

You can apply for admission up to two years in advance of the year you plan to start studying. Apply through our student portal, Pūaha. Once you have met the requirements, you will receive either a conditional or an unconditional Offer of Place. Accept your offer to confirm your admission.

After accepting your Offer of Place, you will be invited to select your courses once course enrolment is open. You select courses for one academic year at a time.

We'd love to see you at one of our information events—check our website for dates.

- www.wgtn.ac.nz/puaha
- www.wgtn.ac.nz/information-evenings

CONTACT US

Te Wāhanga Pūtaiao

Faculty of Science

Student Service Centre

Room CO144, Level 1, Cotton Building, Kelburn Campus

- 0800 04 04 04
- info@vuw.ac.nz
- www.facebook.com/vicuniwgtnscience
- www.instagram.com/vicuniwgtn_STEM
- www.wgtn.ac.nz/science

COURSE PLANNING

For help with course planning, contact Te Kahupapa—Future Students.

0800 04 04 04
future-students@vuw.ac.nz
www.wgtn.ac.nz/courses

OTHER STUDENT RESOURCES

Disability support

www.wgtn.ac.nz/disability

Māori student support

www.wgtn.ac.nz/awhina

Pasifika student success

www.wgtn.ac.nz/pasifika

Rainbow student support

www.wgtn.ac.nz/rainbow

Refugee-background student support

www.wgtn.ac.nz/refugee-background-students

Scholarships

www.wgtn.ac.nz/scholarships

Student services and support

www.wgtn.ac.nz/student-support

SCIENCE SUBJECTS

BACHELOR OF BIOMEDICAL SCIENCE
Human Genetics
Molecular Pathology
Molecular Pharmacology and Medicinal Chemistry

BACHELOR OF PSYCHOLOGY	
Brain Sciences and Mental Health	Māori Psychology
Cognitive Science	Mental Health Principles and Applications
Criminal Justice and Psychology	Psychological Science (the required major in the Bachelor of Psychology)
Educational Psychology	Work and Organisational Psychology
Health Psychology	

BACHELOR OF SCIENCE	
Actuarial Science	Environmental Studies
Artificial Intelligence	Geography
Biology	Geology
Biotechnology	Information Systems
Cell and Molecular Bioscience	Marine Biology
Chemistry	Mathematics
Computer Graphics and Games	Physics
Computer Science	Psychological Science
Data Science	Science Communication
Development Studies	Science in Society
Ecology and Biodiversity	Space Science
Electronic and Computer Systems	Statistics
Environmental Science	

For more details about these majors, see the *Bachelor of Science, Bachelor of Psychology,* and *Engineering and Computer Sciences* publications. For more details about Information Systems, see the *Bachelor of Commerce* publication.

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