

I chose to study the one year Bachelor of Biomedical Sciences with honours degree because it gave me the opportunity to combine and put into practice the skills and techniques I had learnt in my undergraduate degree. I have always had a passion for microbiology and this programme gives me the opportunity to work closely with infectious disease researchers, as well as learn new techniques in other fields of health research. What stood out to me the most was how the degree was structured with such an emphasis on the practical elements of research, unlike many other programmes.



Krista Dawson,
BBiomedSc(Hons) student

The University of Otago, Christchurch offered exactly what I was looking for. The researchers here are working at the forefront of their fields. Access to international collaborations, excellent facilities, and a city that is constantly changing and improving makes this an exciting place to learn and explore new ideas.



Jessika Wise,
PhD student (Pathology & Biomedical Sciences)



CHRISTCHURCH

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POSTGRADUATE



CHRISTCHURCH

Bachelor of Biomedical Sciences with Honours

BBiomedSc(Hons)



Bachelor of Biomedical Sciences with Honours BBiomedSc(Hons)

The University of Otago, Christchurch campus offers a one-year honours programme to students who have completed and performed well in a BBiomedSc degree or a BSc degree in approved disciplines, at Otago or elsewhere.

PROGRAMME FOCUS

The focus of the BBiomedSc Honours programme is laboratory-based scientific research that will develop the skills and knowledge required to enable graduates to progress to a PhD programme. This is achieved through an integrated training experience comprised of advanced practical and theoretical components. This 'research apprenticeship' will provide a thorough grounding in major methodologies common to most biomedical science disciplines and enable students to train within a dynamic research environment.

PROGRAMME SCOPE

Graduates of the BBiomedSc(Hons) programme will be aware that research in the biomedical sciences transcends traditional discipline boundaries. They will have a sound understanding of:

- the basic disciplines of biomedical science coupled with advanced research experience in a specific area of interest
- the principles of experimental design and the application of quantitative methods, and will have utilised these skills to produce an original research project
- the fundamental contribution of research to biomedical sciences and the appropriate training to enable them to undertake a PhD in their chosen discipline
- the broad mechanisms underlying normal and abnormal human biology, and will be able to apply fundamental scientific principles to the investigation of biomedically-relevant problems

ENTRY REQUIREMENTS

- BBiomedSc or BSc in a relevant field from the University of Otago, or an approved degree from another University.
- Minimum B+ average for third year papers for the appropriate 300-level papers.

PROGRAMME STRUCTURE

Coursework

Topics in the first part of the year include: DNA sequencing and genotyping, bioinformatics, protein electrophoresis and blotting, mass spectrometry, cell culture, genetic manipulation, flow cytometry and microscopy. Each module will include a mix of theory, practical demonstration, troubleshooting and critical analysis of published literature. Supplementary lectures throughout the year will focus on broader research skills including scientific writing and presentations, ethics, experimental design, literature searching and data analysis.



Research project

Students, in consultation with an approved supervisor, will prepare a research plan and literature review before spending 6 months undertaking the research within one of eight research groups in the Department of Pathology and Biomedical Science and then submitting a thesis. Details of research being undertaken in the department are available on our website. General themes include: angiogenesis, biomarkers, cancer biology and genetics, cell signalling and cell death, mitochondria, oxidative stress, gene therapy, immunotherapy, infection and inflammation, microbiology, pharmacogenetics and genomics, protein biochemistry and proteomics.

DEPARTMENT OF PATHOLOGY & BIOMEDICAL SCIENCES

The Department of Pathology & Biomedical Sciences at the University of Otago, Christchurch provides an excellent environment to undertake intensive training in the biomedical sciences.

The Department has approximately 40 academic staff members that include a mix of established and emerging New Zealand biomedical research leaders. In addition to our Honours students, about 20 PhD and Masters students are enrolled in the Department at any one time.

Programme Coordinator:

Professor Madhav Bhatia

Tutors:

Associate Professor Margaret Currie

Associate Professor Gabi Dachs

Dr Nina Dickerhof

Dr Louisa Forbes

Professor Mark Hampton

Professor Martin Kennedy

Professor Tony Kettle

Dr Simran Maggo

Dr Judy McKenzie

Ms Allison Miller

Dr Paul Pace

Dr Andree Pearson

Associate Professor John Pearson

Dr Elisabeth Phillips

Dr Rufus Turner

Professor Margreet Vissers

Dr Logan Walker

Professor Christine Winterbourn

For further information about the research undertaken in the Department of Pathology, see:

otago.ac.nz/christchurch/departments/pathology

Programme website: otago.ac.nz/christchurch/biomed

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