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.

PROGRAMME FOCUS
The focus of the BBiomedSc Honours programme is laboratory-based scientific research that will develop the skills and attitudes 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.

“At other universities you spend a lot more time doing papers in class and might get distracted from your research. In Christchurch you spend the majority of the time in the lab working on your project.”

Hannah Kennedy
BBiomedSc(Hons) graduate and current PhD student

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, media skills, 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 of the research groups in the Department of Pathology 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.

GRADUATE PROFILE
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 related 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.

More details about entry requirements can be found at biomedical.ac.nz. Course numbers are limited.
DEPARTMENT OF PATHOLOGY

The Department of Pathology 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. More than 20 PhD students are enrolled in the department at any one time.

Programme Coordinator:
Professor Madhav Bhatia

Tutors:
Dr Andrea Betz
Dr Kenny Chitcholtan
Dr Margaret Currie
Associate Professor Gabi Dachs
Dr Nina Dickerhof
Dr Louisa Forbes
Professor Mark Hampton
Professor Martin Kennedy
Professor Tony Kettle
Dr Andreas Königstorfer
Dr Judy McKenzie
Ms Allison Miller
Dr Paul Pace
Dr Andree Pearson
Dr John Pearson
Dr Elisabeth Phillips
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: biomedical.ac.nz

CONTACT INFORMATION:

Ruth Helms
Manager, Academic Programmes
University of Otago, Christchurch
PO Box 4345
Christchurch 8140
Tel 64 3 364 0527
ruth.helms@otago.ac.nz

Professor Madhav Bhatia
Programme Co-ordinator
University of Otago, Christchurch
PO Box 4345
Christchurch 8140
Tel 64 3 378 6238
madhav.bhatia@otago.ac.nz

Bachelor of Biomedical Sciences with Honours (BBiomedSc(Hons))