Waipapa
Taumata Rau
University
of Auckland



Biomedical Engineering

LEARN MORE

Biomedical Engineering combines engineering, biology, and medicine to understand our complex bodies, develop technology to diagnose and treat diseases, and grow New Zealand's MedTech industry.

Offered by our Department of Engineering Science and Biomedical Engineering, this specialisation may suit you if you enjoy physics and mathematics, and are interested in applying your skills to problems in health and biology.

Te Herenga Auaha, Faculty of Engineering and Design

MODELLING BIOLOGY

Use mathematics, physiology, and computational tools to analyse biological systems, ranging from cells to whole organs. You will formulate mathematical descriptions of the physiological functions of our bodies in health and disease, and use these to help design improved medical therapies and devices.

EXPERIMENTATION

Design, carry out, and analyse measurements to gather information about the structure, function, and properties of living organisms and tissues. You will learn how to use imaging, biochemical, mechanical, and electrical measurements to test and refine models, therapies, and devices.

BIOINSTRUMENTATION

Build your knowledge in mechatronics, design, and measurement principles to record and process signals and develop new devices. You will gain experience in the processes involved in improving health outcomes for patients, including diagnosing and treating diseases.