



UNIVERSITY OF
AUCKLAND
Waipapa Taumata Rau
NEW ZEALAND

ENGINEERING

Postgraduate Q & A
Medical Engineering

what

... IS HEALTH ENGINEERING?

New technologies will continue to drive the future of the medical industry. Specialists are needed to design medical devices as well as implement regulations surrounding device design. Those technologies need clinical assessments, and people to oversee the necessary quality control and ethical standards through the development process. The industry needs qualified professionals to invent, produce, and safely trial technologies like cardiac pacemakers and cochlear implants.

... ARE THE POTENTIAL CAREER PATHS?

The forefront of the biomedical devices industry is entrepreneurial. Programme graduates will leverage the relationships The University of Auckland has cultivated both in the start-up space and in the research and development departments of industry. Other professional paths include the New Zealand cochlear industry, global healthcare platforms and global healthcare design and manufacturing.

what

Programme pathways:

- *Master of Medical Engineering*

120 and 180 point taught

- *PGDipMedicalEng*

- *PGCertMedicalEng*

... PREREQUISITES OR QUALIFICATIONS DO I NEED TO TAKE THIS COURSE?

Pathways to this programme include those with appropriate clinical registration, relevant professional experience, as well as those with a background in technology or science.

... SPECIALISATIONS CAN I DO WITHIN THE DEGREE?

The degree combines expertise from the departments of Mechanical Engineering and Engineering Science where the core topics are design-based rather than technical. Subjects include biomedical engineering, medical devices, digital technology, biomaterials and biomedical science and analysis.

The background features a large, light gray gear with a white arrow pointing clockwise, set against a white background. A dark purple horizontal bar is at the top, and a dark blue circular shape is on the right. The word 'who' is written in white on the purple bar.

who

... SHOULD TAKE THE COURSE?

The worldwide health industry is evolving faster than ever before. Governments and health organisations are calling out for new ideas and leaders who can implement them. The University of Auckland wants to put you at the forefront of the medical technology sector, bridging professionals from engineering, design, health and applied sciences, and industry. Together we'll explore the technologies that drive health innovation, as well as what it takes to become an entrepreneur in biomedical devices.

who

... ARE LEADING THE PROGRAMME?



Luke Hallum is a biomedical engineer interested in the brain, behaviour, and neural prosthetics. He was awarded a PhD in Biomedical Engineering by the University of New South Wales, prior to postdoctoral training at New York University's Center for Neural Science. He was appointed Research Assistant Professor at NYU, and in 2018 joined the Mechanical Engineering department at the University of Auckland.

Justin Fernandez is an Associate Professor and a Principal Investigator in the musculoskeletal modelling group where he leads research into computational biomechanics, orthopaedics, sports science and forensics. His work integrates gait analysis, wearable sensors, large population data, statistical models and computational mechanics. His research strongly focuses on clinician engagement.



why

WORLD
ECONOMIC
FORUM

Reskilling needs



A 2021 report by the World Economic Forum shows the rise of automation and digitisation has transformed the world of work – increasing productivity but also creating a major societal problem: the stark mismatch of people with the right skills for available jobs. The COVID-19 pandemic has accelerated and exacerbated these trends. As a result, the need to upskill and reskill people so they can participate in the economy is more critical than ever before.*

... STUDY AT THE UNIVERSITY OF AUCKLAND?

You can count on our reputation as New Zealand's top university and engineering faculty, as well as our expertise in the field of biomedical engineering. Our staff is dedicated to supporting the health sector by providing innovative entrepreneurs and big-picture insights into the research and development industry.



PGCertMedicalEng



PGDipMedicalEng



MMedicalEng



@UoAEngineering