

Bioengineering

POSTGRADUATE



After graduating with a Bachelor of Science in Neuroscience, Emma Managh went on to complete a Master of Science in Bioengineering supported by the University of Otago Master's Research Scholarship.

"After finishing my Bachelor's degree in Neuroscience, I knew I was interested in innovative solutions in science, but I wasn't quite sure where I wanted to take it. The Bioengineering programme immediately stood out to me because it offered the opportunity to combine my scientific background with engineering to solve real-world problems."

"One of the things I loved most was the multidisciplinary nature of Bioengineering, it allowed me to interact and collaborate with people from a range of backgrounds and departments. Learning from specialists across different fields gave me a much broader perspective on how science and engineering can come together to address complex problems."

Emma's thesis project, titled 'Prevascularisation of 3D Bioprinted Nipple-Areolar Complex Implants for Mastectomy Patients', involved the development and optimisation of a 3D-printed tissue construct and novel system designed to grow blood vessels within the construct prior to implantation, with the aim of improving implant survival.

The project provided hands-on experience across a range of areas, including 3D printing, CAD design, prototyping, chemical synthesis, cell culture and more.

"I'm always up for a challenge, and this definitely was one. It wasn't always easy, but it was absolutely worth it. The programme challenged me to grow both professionally and personally, while developing my problem-solving skills, independence and confidence."

Emma's research was in collaboration with the University of Maryland, where she had the opportunity to travel to the US and gain experience within state-of-the-art bioengineering facilities.

"My advice if entering the programme would be to say yes to the opportunities it offers you. Whether that's presenting your work, attending conferences, collaborating with others or trying something completely new. And don't be afraid to reach out for help and share your ideas. Fostering relationships in such a collaborative discipline can really help you succeed."

My experience in the Bioengineering programme has equipped me with the skills, experience and confidence to pursue a career at the intersection of science, engineering and innovation as a Product Development Engineer.

Study with us

Master of Applied Science in Bioengineering
Master of Science in Bioengineering
PhD

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