



THE UNIVERSITY OF  
**AUCKLAND**  
Te Whare Wānanga o Tāmaki Makaurau  
NEW ZEALAND

**ENGINEERING**



***Postgraduate Q & A***  
**Aerospace Engineering**

# what

## ... IS NEW ZEALAND AEROSPACE ENGINEERING?

Modern society is reliant on aerospace technology, from the aviation Industry to global positioning systems to weather and climate motoring, to networking and communication. Did you know the New Zealand space sector adds \$1.7 billion annually to our national economy? The national space industry alone directly employs approximately 5,000 people, with the potential to expand its presence in the rapidly growing global aerospace sector. That, however, depends on you. New Zealand needs passionate leaders like you to grow the sector to its full potential.

## ... ARE THE POTENTIAL CAREER PATHS?

Programme graduates will use aerospace technology to address some of the biggest challenges we face today: using satellite technology to improve global communication networks, designing tomorrow's rockets and aircraft, supporting Earth observations to tackle climate change, and solving the growing space junk problem. Potential fields of employment include aeronautics, astronautics, space systems and aerospace management in technical or management roles.

# what

## Programme pathways:

- ***PGCertAerospaceEng*** 60 pts
- ***PGDipAerospaceEng*** 120 pts
- ***MAerospace Eng*** 120 or 180 pts

## ... WILL I LEARN WITH THIS PROGRAMME?

The programme is led by academics in Te Pūnaha Ātea – Space Institute at the University of Auckland, which includes world-leading researchers in spacecraft structures and mechanisms, mission design, and space situational awareness, and more. The Institute also houses dedicated facilities to support space engineering including a mission operations control centre, ground station, and a national satellite test facility to qualify space hardware for flight. Available facilities include wind tunnels to support aerodynamics work, composite structures manufacturing and test facilities, and laboratories for mechatronics and structural dynamics. Students gain hands-on experience and carry out research in collaboration with industry partners to boost the potential for employment opportunities.

# who

## ... SHOULD TAKE THE COURSE?

Our ideal student has a solid engineering or STEM background, a passion for aerospace topics and a desire to contribute to research or the aerospace workforce. Our programme is designed to foster innovation and entrepreneurship, so a spirit of initiative and a creative mindset is also valued.

## ... IS LEADING THE PROGRAMME?

**Professor Guglielmo Aglietti** is a leader in the development of New Zealand's space sector. He specialises in aerospace structures and mechanisms, and has led the development and execution of space missions, for instance, to remove space debris and demonstrate in-orbit hardware. His work as a researcher and consultant has found applications in industrial hardware development, from satellite subsystems to satellite analysis and testing, which contributed to European Space Agency guidelines.



# why

## ... STUDY IN NEW ZEALAND?

Despite its small size, the nascent aerospace sector in New Zealand benefits from key advantages. Billed as an ideal location for “New Space”, the recent commercialisation of the global space sector, New Zealand is home to the first fully private orbital launch range with the highest launch cadence in the world. New Zealand also benefits from its geography, which provides uncluttered launch windows, an excellent location for ground infrastructure and an ideal environment for Earth observation, data calibration and validation. When coupled with a nimble regulatory regime and a culture of innovative thinking, the possibilities for aerospace in New Zealand are limitless.

## ... STUDY AT THE UNIVERSITY OF AUCKLAND?

You can count on New Zealand’s top university and engineering faculty to help you turn your passion for aerospace into the career of your dreams. We offer the only dedicated Master of Aerospace Engineering qualification in New Zealand, as well as postgraduate certificate and diploma options to fit the demands of today’s students. The programme is endorsed by the New Zealand Space Agency, the Royal Aeronautical society, Rocket Lab and Callaghan Innovation as fitting the growing needs of New Zealand’s space workforce.



PGCertAerospaceEng



PGDipAerospaceEng



MAerospaceEng



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