

## **Engineering excellence**

The Faculty of Engineering is dedicated to providing you with all the facilities, flexibility and support needed to develop your skills for the workforce. We encourage interdisciplinary projects, bringing together expertise from our five departments, other faculties, and industry partners and research organisations. Collaborative study is strongly encouraged – postgraduates in particular have the benefit of experiencing cohorts with diverse academic and industry backgrounds.

You will gain access to world-renowned experts who actively demonstrate the positive impacts research has on society. Highperformance equipment and labs beyond industry standards are at your fingertips. Our facilities extend beyond study hours – we take pride in our involvement in student events and associations across the University, and are dedicated to providing you with academic, personal and career advice. We encourage you to take advantage of our resources, and use them to expand the possibilities of your research and career path.

## Contacts

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www.engineering.auckland.ac.nz/mor



# ENGINEERING

# Master of OPERATIONS RESEARCH (MOR)





# ENGINEERING

# Invest in your future

Operations Research helps industries become more agile, resilient and effective. In today's economy, this is essential for business survival – an ongoing demand exists both in the public and private sectors for professionals with advanced planning, analysis and research abilities.

#### **Programme structure**

Research (120 points) Full-time or part-time

You must successfully complete a 120-point research thesis to achieve the MOR. Within the course of this programme, you will develop a high level of competency in independent research, which can be an inspirational introduction to further study in our doctoral programme. The MOR is open to students with undergraduate backgrounds in arts, commerce, engineering or science, so you'll be exposed to a broad range of applicable knowledge while remaining engaged with core techniques and methodology.

### **Research applications**

The extensive, interdisciplinary nature of operations research makes it a field and qualification with plenty of variety – it is utilised in many essential industries, especially when data visualisation plays a vital part.

Opportunities arise continuously for new applications – at the University, we have been involved in:

Healthcare: Scheduling delivery and policy analysis

**Transport:** Efficient rostering for airlines and logistics of sustainable vehicle fleets

Energy: Smart and green growth strategies and policy design

Shape optimisation: Precision in cutting diamonds and forestry products

The Master of Operations Research (MOR) equips students with high level skills in network design simulations, dynamic programming, mathematical modelling and more. This interdisciplinary field adopts techniques from engineering, mathematics, economics, and science, making your qualification a challenging, yet enriching one. Offered jointly by the Faculties of Engineering and Science, you will engage with a broad range of experts, perform rigorous analysis, and solve complex real-world problems.

The core aim of operations research is to optimise solutions, minimise risk and help organisations run more efficiently. This means that your research and methodological competencies will be an asset in our technologically-driven day-to-day environments, where there are increasing employment opportunities for those with skills in operations research.

