

Bachelor of Engineering (Honours)

Specialisation in Mechatronic Engineering

ASSUMED KNOWLEDGE

- HSC Mathematics Advanced (Band 4) or equivalent. If you don't have the assumed knowledge, you're advised to undertake a bridging course in mathematics.

RECOMMENDED STUDIES

- HSC Mathematics Extension 1 or HSC Mathematics Extension 2
- HSC Physics, or equivalent.
- HSC Software Design and Development or equivalent.

COURSE STRUCTURE

ESSENTIAL UNITS: Complete each unit below 60 cp

ENGG1000	Introduction to Engineering	10 CP
ENGG1050	Engineering Design	10 CP
ENGG2000	Engineering Practice	10 CP
ENGG2050	Engineering Systems and Design Thinking	10 CP
ENGG3000	Engineering Project Practice	10 CP
ENGG3050	Engineering Leadership and Entrepreneurship	10 CP
ENGG4099	PACE: Industry Experience	No CP

CAPSTONE UNIT: Complete the capstone unit below 10 cp

ENGG4001	Professional Practice	10 CP
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Essential Units Total = 70 Credit Points

Flexible zone 40 cp

40cp of elective units. You can use your flexible zone to enrol in any Undergraduate unit for which you meet the requisites. You may also use your flexible zone to complete a minor.

Options include: Ancient History, Anthropology, Astronomy and Astrophysics, Biology, Biotechnology, Business Administration, Business Analytics, Business Information Systems, Chemistry, Chinese Studies, Creative Writing, Criminology, Critical Indigenous Studies, Cyber Security Governance, Earth and Environmental Sciences, Economics, English, French and Francophone Studies, Gender Studies, Geography, German Studies, Health, Wellbeing and Society, Human Biology, Human Resource Management, Interactive Design, International Business, International Relations, Japanese Studies, Journalism and Non-Fiction Writing, Management and Leadership, Marine Science, Mathematics, Media, Culture and Communications, Modern History, Music Studies, Performing Arts and Entertainment Industries, Physics, Philosophy, Politics, Psychological Science, Public Relations and Social Media, Radio, Podcasting and Audio Media, Screen Practice and Production, Sociology, Spanish and Latin American Studies, Statistical Data Science, Strategy, Innovation and Entrepreneurship, and Work, Life and Technology.

Flexible Zone = 40 Credit Points

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Complete all units below. Each unit is 10 cp

MATH1010	Calculus and Linear Algebra I
MATH1020	Calculus and Linear Algebra II
COMP1000	Introduction to Computer Programming
MECH1001	Introduction to Mechanical Engineering
PHYS1510	Engineering Physics
PHYS1520	Physics for Electrical and Electronic Engineering
ELEC2070	Linear Circuits and Devices
ELEC2005	Electrical and Electronic Systems
ELEC2040	Signals and Systems
MATH2055	Engineering Mathematics II
MECH2003	Mechanical Design 1
MTRN2060	Introduction to Mechatronics
ELEC3024	Control Systems
ELEC3042	Embedded Systems
MTRN3026	Mechatronic Systems
MTRN3060	Robotics and Automation
MTRN4062	Micro Electro Mechanical Systems (MEMS)
MTRN4066	Advanced Mechatronic Engineering
MTRN4068	Wireless Mechatronics
MTRN4092	Mechatronic Engineering Research Thesis A
MTRN4093	Mechatronic Engineering Research Thesis B

Specialisation = 210 Credit Points

Degree = 320 Credit Points

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