

Bachelor of Engineering (Honours) Specialisation in Mechatronic Engineering

ENTRY REQUIREMENTS

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 plus HSC Physics, or equivalent. HSC Software Design and Development or equivalent.

COURSE STRUCTURE

Essential units - 100 credit points

Complete each unit below.

ENGG1100	Introduction to Engineering
ENGG1110	Engineering in Balance
ENGG1130	Engineering in Motion
ENGG1140	Fundamentals of Digital Computing
ENGG1150	Foundations of Signals and Circuits
ENGG1160	Programming and Proof
ENGG2100	Engineering Project
ENGG3100	Advanced Engineering Project
ENGG4100	Engineering Professional Practice
ENGG4101	Engineering Thesis Project A
ENGG4099	PACE: Industry Experience - <u>No credit points</u>

Elective Unit - 10 credit points (contains 20)

Complete 10 credit points from the following options.

- Students enrolling in Software Engineering and Mechatronic Engineering Specialisations must enrol in COMP1020.
- Students enrolling in Civil Engineering and Mechanical Engineering Specialisations must enrol in ENGG1120.
- Students enrolling in Electrical and Electronic Engineering Specialisation can select either COMP1020 or ENGG1120.

COMP1020 Software Development Practices

ENGG1120 Engineering with Heat and Fluids

Complementary Option Sets - 60 credit points

Complete 60 credit points from one of the following:

- Environmental Management
- Management and Leadership
- Strategy, Innovation and Entrepreneurship
- Artificial Intelligence
- Cyber Security
- Mathematics
- Engineering Infrastructure
- Engineering Breadth
- Software Development

Capstone unit - 10 credit points

ENGG4102 Engineering Thesis Project B - 10 credit points

Elective Units - 20 credit points

Complete 20 credit points from any 1000, 2000, 3000 or 4000 level units for which you meet the requisites.

Specialisation in Mechatronic Engineering - 120 credit points.

Complete each unit below.

MTRN2160	Introduction to Mechatronics
MTRN3124	Control Systems
MTRN4130	Manufacturing and Industrial Automation
MTRN4170	Robotics and Advanced Control
MTRN4180	Mobile Robotics
ELEC2110	Digital Electronics
ELEC2130	Electrical and Magnetic Circuits
ELEC3110	Embedded Systems
ELEC3130	Electrical Machines
MECH2110	Mechanical Engineering Dynamics
MECH4110	Vibration and Acoustics

Complete one of the following units.

Elective units - 10 credit points

MECH2130	Design for Mechanical Manufacturing
MECH2140	Mechanics of Materials

Specialisation = 120 Credit Points

Degree = 320 Credit Points

CORE ZONE

CORE ZONE

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