

# **Bachelor of Engineering (Honours)**

## **Specialisation in Mechanical Engineering**

### **ENTRY REQUIREMENTS**

Academic Requirements	Guaranteed entry - 80
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**

Bachelor of Engineering= 280 credit points		
Core Zone	70 credit points	
Specialisation in Mechanical Engineering	210 credit points	
Qualification = 280 credit points		

#### **CORE ZONE**

Essential units - 60 credit points			
ENGG1000 Introduction to Engineering	10		
ENGG1050 Engineering Design	10		
ENGG2000 Engineering Practice	10		
ENGG2050 Engineering Systems and Design Thinking	10		
ENGG3000 Engineering Project Practice	10		
ENGG3050 Engineering Leadership and Entrepreneurship	10		
ENGG4099 PACE: Industry Experience	10		
Capstone unit - 10 credit points			
Complete the capstone unit below.			
ENGG4001 Professional Practice	10		

#### **FLEXIBLE ZONE**

#### Flexible Zone = 40 credit points

This zone allows you to either gain more depth in your chosen area of study or learn about other areas that interest you. 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.

#### **SPECIALISATION**

Mechanical Engineering = 210 credit points		
Complete the following units.		
MATH1010	Calculus and Linear Algebra I	
MATH1020	Calculus and Linear Algebra II	
COMP1000	Introduction to Computer Programming	
PHYS1510	Engineering Physics	
PHYS1520	Physics for Electrical and Electronic Engineering	
MATH2055	Engineering Mathematics II	
MECH2001	Engineering Dynamics	
MECH2002	Fluid Mechanics	
MECH2003	Mechanical Design 1	
MECH2004	Mechanics of Solids	
MECH2005	Engineering Materials	
MECH3001	Thermodynamics	
MECH3002	Heat and Mass Transfer	
MECH3003	Mechanical Design 2	
MECH3004	Applied Numerical Engineering	
MECH3005	Manufacturing Engineering	
MECH4001	Product Design Engineering	
MECH4002	Energy Sustainable Design	
MECH4092	Mechanical Engineering Research Thesis A	
MECH4093	Mechanical Engineering Research Thesis B	