



D372.3

Campus of Offer: Geelong Waurm Ponds Campus (G)

Duration: 5.5 years full time or part time equivalent

Course code: D372

Bachelor of Engineering / Bachelor of Science MECHATRONICS AND ROBOTICS MAJOR

year					
1	Trimester 1	SEE010 Safety Induction Program – 0 credit point compulsory unit (Compulsory: 50-minute safety training session conducted at the beginning of the your first Trimester)			
		SLE010 Safety Induction Program – 0 credit point compulsory unit (Compulsory: 50-minute safety training session conducted at the beginning of the your first Trimester)			
	Trimester 2	SEB121 Engineering Practice	SEB101 [^] Engineering Fundamentals	SIT199 Applied Algebra and Statistics	SED102 Engineering Graphics and CAD
		SEE103 Electrical Systems	SEM111 Engineering Materials 1	SIT194 Introduction to Mathematical Modelling	SIT172 Programming for Engineers
2	Trimester 1	SEP291 Engineering Modelling	SEM223 Engineering Mechanics	[^] Choose one of: SLE133 Chemistry in Our World (B,G) (Tri-1) or SLE155 Chemistry for the Professional Sciences (B,G) (Tri-2)	SLE111 Cells and Genes
	Trimester 2	SEB223 The Professional Environment for Engineers & Scientists	SEM222 Stress Analysis	Science	Science
3	Trimester 1	SEE202 Digital Electronics	SEE206 Measurement and Instrumentation	SLE103 Ecology & the Environment	EES101 Communicating Science
	Trimester 2	SEE215 Microcontroller Principles	SEE208 Modern Power Generation Systems Design	Science	Science
	SEP490: Engineering Work Experience (12 weeks)				
4	Trimester 1	SEM327 Dynamics of Machines [~]	SEE321 Electro-Mechanical Systems	SED302* Computer Aided Engineering	SEE320 Microcontroller System Design
	Trimester 2	SEB324 Project Management	SEE312 Industrial Data Communication	SEE326 Artificial Intelligence for Autonomous Systems	SEE344 Control Systems
5	Trimester 1	SEJ441 Engineering Project A Offered T1, T2 and T3	SER400 [#] Virtual and Augmented Interfaces	SEM433 Mechatronic Design	Science
	Trimester 2	SEJ446 Engineering Project B (2cp) Offered T1, T2 and T3		SEE412 Data Communication	Science
5.5	Trimester 1	Science – Level 3	Science – Level 3	Science – Level 3	Science – Level 3

[^] SEB101 replaces SEP101 from 2016

* SED302 replaces SEE325 from 2016

SER400 replaces SEE426 from 2016

~ SEM327 will be offered in Trimester 2 from 2017

This map is a guide only and should be used in conjunction with the 2016 on-line Handbook.

Rev: 1 September 2015

COURSE RULES:

This combined course comprises a total of 44 credit points which must include the following:

Engineering component:

- 30 credit points of core engineering units
- One approved Engineering major:
 - civil
 - electrical and electronics
 - mechanical
 - mechatronics and robotics
- Combined Engineering students are exempt from engineering elective requirements.
- See course entry for the [Bachelor of Engineering \(S367\)](#) for details of core units.

Science component:

- 16 credit points of Science units including:
 - 7 Bachelor of Science core units
 - One 8 credit point major from the Bachelor of Science:
 - - Biology
 - - Biological Chemistry
 - - Chemistry
 - - Mathematical Modelling
 - - Zoology
- 2 Engineering units course grouped for Science: SEP101 and SIT194
- See course entry for the [Bachelor of Science \(S320\)](#) for further details.

Students must meet the minimum requirements for each award.

Science component:

16 credit points (cps) of Science units including:

- 7 Bachelor of Science core units (1 cps each)
 - SLE111 Cells and Genes Tri-1
 - SLE103 Ecology & the Environment Tri-1
 - EES101 Communicating Science Tri-1
 - SEB101[^] Engineering Fundamentals Tri-1
 - SIT194[^] Intro to Math Modelling Tri-2
- Minimum of 1 cp of professional practice
(choose from SLE390, SLE352, SLE314, STP321) Tri-1, Tri-2
- # Chemistry - choose one from:
 - SLE133 Chemistry in Our World Tri-1
 - SLE155 Chemistry for the Professional Sciences Tri-2

Note: Students who have not completed Year 12 Chemistry or equivalent may choose to do SLE133 Chemistry in Our World in Trimester 1. Students who have completed Year 12 Chemistry or equivalent may choose to do SLE155 Chemistry for the Professional Sciences in Trimester 2.

Students who are intending on completing a Biological Chemistry or Chemistry major must complete SLE155 Chemistry for the Professional Sciences.

- One 8 credit point major from the Bachelor of Science (refer to the online handbook for details on the major sequence):
 - MJ-S000008 Biology
 - MJ-SU00012 Biological Chemistry
 - MJ-S000009 Chemistry
 - MJ-S000007 Mathematical Modelling
 - MJ-S000025 Zoology

[^]2 Engineering units course grouped for Science: SEP101/SEB101 and SIT194

Students must meet the minimum requirements for each award.

Please note that some units are available in Trimester 3, please refer to the online handbook