

Academic Chair: For 1st year & Advanced Standing enquiries: [Amir Yazdani](#)
For 2nd, 3rd and 4th year enquiries: [Travis Woodward](#)

Start Date: Semester 2 2025

Option 1: Single Major in Industrial Control and Automation Engineering

Year 1 – 2025	Semester 1 Units	CP	Semester 2 Units	CP
			MAS164 Fundamentals of Mathematics ¹	3
			PEN120 General Physics ²	3
			ENG101 Engineering Fundamentals	3
			ENG102 Engineering Design for Sustainability	3
			Total	12
Year 2 – 2026	Semester 1 Units	CP	Semester 2 Units	CP
	MAS182 Introductory Calculus with Applications	3	MAS161 Calculus and Matrix Algebra	3
	ENG103 Principles of Engineering	3	ENG209 Fundamentals of AC Circuits	3
	ENG109 Engineering Computing Systems	3	ENG252 Embedded Systems	3
	ENG208 Fundamentals of DC Circuits	3	MAS162 Discrete Mathematics and Logic ³ (or Specified Elective)	3
	Total	12	Total	12
Year 3 – 2027	Semester 1 Units	CP	Semester 2 Units	CP
	MAS220 Mathematical Methods and Multivariable Calculus	3	ENG216 Dynamic Systems and Control	3
	ENG215 Systems Engineering	3	Choose one ³ : ENG231 or ENG381 or ENG382 (or Specified Elective)	3
	ENG251 PLC Systems	3	ENG336 Engineering Finance, Management and Law	3
	ENG344 Electromechanical Energy Conversion ³ (or Specified Elective)	3	ENG360 Engineering Design Project (H option) ⁴	3
			ENG100 Engineering Professional Practice (H)	0
	Total	12	Total	12
Year 4 – 2028	Semester 1 Units	CP	Semester 2 Units	CP
	ENG391 Process Control	3		
	ENG392 SCADA and Instrumentation Systems	3		
	Specified Elective	3		
	ENG360 Engineering Design Project (H option)	3		
	ENG100 Engineering Professional Practice (H)	0		
	Total	12	Total	

TOTAL CREDIT POINTS 72

¹ Check the Enrolment Rules for MAS164 in the [Handbook](#). If you are ineligible to enrol, you should consult the Academic Chair.

² Check the Enrolment Rules for PEN120 in the [Handbook](#). If you are ineligible to enrol, you should consult the Academic Chair.

³ Recommended specified elective.

⁴ Note that enrolling in ENG360 requires that the full unit fee (6 CP) be paid at the beginning of the teaching period.

Specified Electives	
CHE140 Fundamentals of Chemistry (S1, S2) PEN152 Principles of Physics (S1, S2) MAS162 Discrete Mathematics and Logic (S1, S2) MAS183 Statistical Data Analysis (S1, S2) ENG341 Water Conservation & Auditing (S1) ENG344 Electromechanical Energy Conversion (S1) PEN594 Energy Auditing and Management (S1) SIK102 Wandju Boodja (Welcome to Country) (S1, S2)	ENG221 Pollution & Its Control (S2) ENG231 Renewable Energy Systems (S2) ENG300 Environmental Technology for Sustainability(S2) ENG381 Electrical Power Systems (S2) ENG382 Power Electronics (S2) ICT158 Introduction to Information Systems (S2) BUS368 Cultures of Innovation (S2)
Notes: 1. A maximum of 30 CP of 100-level units may be completed as part of the course. 2. Review the elective units corequisites and prerequisites carefully before making any selection. 3. Any other elective units are subject to approval from the Academic Chair.	
Spine - ENG100 Engineering Professional Practice (0 CP) Bachelor of Engineering Technology students should complete 300 hours of approved work experience to complete the requirements of the course.	

Please note: This course plan is a sample only and must be read in conjunction with the full course structure, unit prerequisites and enrolment options as outlined in the [Handbook](#). Students should note that due to unit prerequisites, commencing study in Semester 2 may extend the duration of the course. This information is correct as at 01/07/25.