B1408 Bachelor of Engineering Technology (Electrical and Renewable Energy Engineering)

Academic Chair: For 1st year & Advanced Standing enquiries: Sheikh Izzal Azid
For 2nd, and 3rd year enquiries: Martina Calais

Start Date: Semester 2 2026

Major in Electrical and Renewable Energy Engineering with *Industrial Control and Automation Engineering* focus

	Semester 1 Units	CP	Semester 2 Units	CP
Year 1 – 2026			**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 – 2027	**Semester 1 Units**	**CP**	**Semester 2 Units**	**CP**
	MAS182 Introductory Calculus with Applications	3	**MAS161** Calculus and Matrix Algebra	3
	ENG109 Engineering Computing Systems	3	**ENG103** Principles of Engineering	3
	ENG208 Fundamentals of DC Circuits	3	**ENG209** Fundamentals of AC Circuits	3
	MAS162 Discrete Mathematics and Logic[3] (or Specified Elective)	3	**ENG336** Engineering Finance, Management and Law	3
	Total	12	**Total**	12
Year 3 – 2028	**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	**ENG231** Renewable Energy Systems	3
	ENG251 PLC Systems[3] (or Specified Elective)	3	**ENG381** Electrical Power Systems	3
	ENG344 Electromechanical Energy Conversion	3	**ENG382** Power Electronics	3
	Total	12	**Total**	12
Year 4 – 2029	**Semester 1 Units**	**CP**	**Semester 2 Units**	**CP**
	ENG391 Process Control[3] (or Specified Elective)	3		
	Discovery Study Unit (see here for options)	3		
	ENG360 Engineering Design Project (S1)	6		
	ENG100 Engineering Professional Practice (S1)	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

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.

Specified Electives

CHE140 Fundamentals of Chemistry (S1, S2) **PEN152** Principles of Physics (S1, S2) **MAS162** Discrete Mathematics and Logic (S1, S2) **ENG341** Water Conservation & Auditing (S1) **ENG251** PLC Systems (S1) **ENG391** Process Control (S1) **ENG392** SCADA and Instrumentation Systems (S1)	**ENG221** Pollution & Its Control (S2) **ENG252** Embedded Systems (S2) **ENG300** Environmental Technology for Sustainability(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.

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 course duration. This information is correct as of 29/05/26.