Bachelor of Engineering Technology B1408 (Industrial Control & Automation Engineering)

Academic Chair: Hai Wang (hai.wang@murdoch.edu.au) **Start Date:** Semester 1 2024

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Electrical and Renewable Energy Engineering Focus

	Semester 1 Units	CP	Semester 2 Units	CP
Year 1 – 2024	MAS164 Fundamentals of Mathematics	3	MAS182 Applied Mathematics	3
	ENG101 Engineering Fundamentals	3	ENG102 Engineering Design for Sustainability	3
	ENG103 Principles of Engineering	3	PEN120 General Physics	3
	ENG109 Engineering Computing Systems	3	Engineering Elective	3
	Total	12	**Total**	12
Year 2 - 2025	**Semester 1 Units**	**CP**	**Semester 2 Units**	**CP**
	MAS161 Calculus and Matrix Algebra	3	BUS368 Cultures of Innovation	3
	ENG214 Electrical and Electronic Circuits	3	ENG216 Dynamic Systems and Control	3
	ENG251 PLC Systems	3	ENG252 Embedded Systems	3
	ENG215 Systems Engineering	3	ENG231 Renewable Energy Systems (Engineering Elective)	3
	Total	12	**Total**	12
Year 3 – 2026	**Semester 1 Units**	**CP**	**Semester 2 Units**	**CP**
	ENG391 Process Control	3	MAS221 Mathematical Modelling and Differential Equations *	3
	ENG392 SCADA and Instrumentation Systems	3	ENG336 Finance, Ethics and Law	3
	ENG344 Electromechanical Energy Conversion (Engineering Elective)	3	ENG360 Y2 Engineering Design Project	3
	ENG360 Y1 Engineering Design Project	3	ENG381 Electrical Power Systems (Engineering Elective)	3
	Total	12	**Total**	12
			TOTAL CREDIT POINTS	**72**

Semester 1 notes	Semester 2 notes
1. For MAS164, students who have achieved a final scaled score of 55% or more in ATAR Mathematics Specialist, WACE Mathematics Specialist 3C/3D or TEE Calculus may not enrol in this unit and should consult their Academic Chair. 2. 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.	1. For PEN120, students who have achieved a final scaled score of 60% or more in ATAR Physics or WACE Physics 3A/3B may not enrol in this unit and should consult their Academic Chair. 2. The elective units could be selected from: KAC102 Wandju Boodja (Welcome to Country); ENV102 Foundations of the Environment; PEN152 Principles of Physics; ICT158 Introduction to Information Systems; MAS183 Statistical Data Analysis; ENG221 Pollution & its Control; ENV243 Water and Earth Science; ENV242 Atmospheric and Climate Science 3. MAS221 offered in S2 is equivalent to MAS220 offered in S1.

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 23/11/23.