

# B1408 Bachelor of Engineering Technology (Industrial Control and Automation Engineering)

Academic Chair: For 1<sup>st</sup> year & Advanced Standing enquiries: [Sheikh Izzal Azid](#)  
For 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> year enquiries: [Amir Yazdani](#)

Start Date: Semester 2 2026

## Major in Industrial Control and Automation Engineering

Year 1 – 2026	<b>Semester 1 Units</b>	<b>CP</b>	<b>Semester 2 Units</b>	<b>CP</b>
			<b>MAS164</b> Fundamentals of Mathematics <sup>1</sup>	3
			<b>PEN120</b> General Physics <sup>2</sup>	3
			<b>ENG101</b> Engineering Fundamentals	3
			<b>ENG102</b> Engineering Design for Sustainability	3
	<b>Total</b>		<b>Total</b>	12
Year 2 – 2027	<b>Semester 1 Units</b>	<b>CP</b>	<b>Semester 2 Units</b>	<b>CP</b>
	<b>MAS182</b> Introductory Calculus with Applications	3	<b>MAS161</b> Calculus and Matrix Algebra	3
	<b>ENG109</b> Engineering Computing Systems	3	<b>ENG103</b> Principles of Engineering	3
	<b>ENG208</b> Fundamentals of DC Circuits	3	<b>ENG209</b> Fundamentals of AC Circuits	3
	<b>MAS162</b> Discrete Mathematics and Logic <sup>3</sup> (Recommended Elective)	3	<b>ENG252</b> Embedded Systems	3
	<b>Total</b>	12	<b>Total</b>	12
Year 3 – 2028	<b>Semester 1 Units</b>	<b>CP</b>	<b>Semester 2 Units</b>	<b>CP</b>
	<b>MAS220</b> Mathematical Methods and Multivariable Calculus	3	<b>ENG216</b> Dynamic Systems and Control	3
	<b>ENG215</b> Systems Engineering	3	<b>ENG382</b> Power Electronics <sup>3</sup> (Recommended Elective)	3
	<b>ENG251</b> PLC Systems	3	<b>ENG336</b> Engineering Finance, Management and Law	3
	<b>ENG344</b> Electromechanical Energy Conversion <sup>3</sup> (Recommended Elective)	3	<b>ENG360</b> Engineering Design Project (H option) <sup>4</sup>	3
			<b>ENG100</b> Engineering Professional Practice (H)	0
	<b>Total</b>	12	<b>Total</b>	12
Year 4 – 2029	<b>Semester 1 Units</b>	<b>CP</b>	<b>Semester 2 Units</b>	<b>CP</b>
	<b>ENG391</b> Process Control	3		
	<b>ENG392</b> SCADA and Instrumentation Systems	3		
	<b>Discovery Study Unit</b> (see <a href="#">here</a> for options)	3		
	<b>ENG360</b> Engineering Design Project (H option)	3		
<b>ENG100</b> Engineering Professional Practice (H)	0			
	<b>Total</b>	12	<b>Total</b>	

**TOTAL CREDIT POINTS 72**

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

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

<sup>3</sup> Recommended specified elective.

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

<b>Specified Electives</b>	
<b>CHE140</b> Fundamentals of Chemistry (S1, S2) <b>PEN152</b> Principles of Physics (S1, S2) <b>MAS162</b> Discrete Mathematics and Logic (S1, S2) <b>ENG341</b> Water Conservation & Auditing (S1) <b>ENG344</b> Electromechanical Energy Conversion (S1)	<b>ENG221</b> Pollution & Its Control (S2) <b>ENG231</b> Renewable Energy Systems (S2) <b>ENG300</b> Environmental Technology for Sustainability(S2) <b>ENG381</b> Electrical Power Systems (S2) <b>ENG382</b> Power Electronics (S2) <b>BUS368</b> Cultures of Innovation (S2)
Notes: <ol style="list-style-type: none"><li>1. A maximum of 30 CP of 100-level units may be completed as part of the course.</li><li>2. Review the elective units corequisites and prerequisites carefully before making any selection.</li><li>3. Any other elective units are subject to approval from the Academic Chair.</li></ol>	
<b>ENG100 Engineering Professional Practice (0 CP)</b> Bachelor of Engineering Technology students should complete <b>300 hours</b> 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 01/05/26.