

## RECOMMENDED STUDY PLAN

2021-2022

DEGREE Bachelor of Engineering (Honours) MAJOR Mechanical Engineering (MEN)

NAME \_\_\_\_\_ MINOR Mathematics (MAT)

To assist you with subject information, we recommend you consult with your CSE Course/Major Advisor and refer to [Subject Search](#). If you would prefer a part-time study plan, please adjust the below planner, reviewing subject prerequisites to ensure you are on track for course completion.

	Study Period 1 - SP1	Study Period 2 - SP2
Year 1	<b>Degree Core:</b> <u>EG1000</u> Engineering 1	<b>Degree Core:</b> <u>EG1010</u> Process Engineering
	<b>Degree Core:</b> <u>EG1002</u> Computing and Sensors	<b>Degree Core:</b> <u>EG1011</u> Statics and Dynamics PREREQ: PH1005 OR (PHYSICS AND MATHS C)
	<b>Degree Core:</b> <u>MA1000</u> Mathematical Foundations PREREQ: MA1020 OR MATHS B OR MATHS C	<b>Degree Core:</b> <u>EG1012</u> Electric Circuits
	<b>Degree Core:</b> <u>PH1005</u> Advanced Stream Physics 1 PREREQ: MATHS B OR MA1020 OR MA1000 OR MA1008	<b>Degree Core:</b> <u>MA1003</u> Mathematical Techniques PREREQ: MA1000 OR MA1011 OR MA1009

	Study Period 1 - SP1	Study Period 2 - SP2
Year 2	<b>Degree Core:</b> <u>MA2000</u> Mathematics for Scientists and Engineers PREREQ: MA1003	<b>Major Core:</b> <u>EG2010</u> Materials Science and Engineering
	<b>Major Core:</b> <u>CS2001</u> Engineering Strength of Materials PREREQ: EG1011	<b>Major Core:</b> <u>ME2525</u> Machine Element Design PREREQ: CS2001
	<b>Major Core:</b> <u>ME2512</u> Thermofluid Mechanics PREREQ: EG1011	<b>Major Core:</b> <u>EE3600</u> Automatic Control 1 PREREQ: EG1012 AND MA2000
	<b>Major Core:</b> <u>ME2521</u> Dynamics of Machine Elements PREREQ: EG1011	<b>Minor Core List 1:</b>

	Study Period 1 - SP1	Study Period 2 - SP2
Year 3	<b>Major Core:</b> <u>EG3001</u> Finite Element Analysis PREREQ: EG1002 AND EG1011 AND MA2000	<b>Major Core:</b> <u>CS3008</u> Fluid Mechanics PREREQ: MA2000 AND ME2512
	<b>Major Core:</b> <u>ME3511</u> Dynamics and Acoustics PREREQ: MA2000 AND ME2521	<b>Major Core:</b> <u>ME3512</u> Heat and Mass Transfer PREREQ: MA2000
	<b>Major Core:</b> <u>ME3515</u> Advanced Manufacturing Engineering – <i>offered EVEN years only*</i> PREREQ: ME2525	<b>Major Core:</b> <u>ME3525</u> Mechanical Design PREREQ: ME2525
	<b>Minor Core:</b> <u>MA2211</u> Discrete Mathematics PREREQ: MATHS B	<b>Minor Core:</b> <u>MA2210</u> Linear Algebra

<b>Year 4</b>	<b>Study Period 1 - SP1</b>	<b>Study Period 2 - SP2</b>
	<b>Degree Core:</b> <u>EG4011</u> Thesis Part 1 of 2 PREREQ: 72CP	<b>Degree Core:</b> <u>EG4012</u> Thesis Part 2 of 2 PREREQ: EG4011
	<b>Degree Core:</b> <u>EG3000</u> Introduction to Systems Engineering and Project Management PREREQ: EG1000 AND EG1002 AND EG1010 AND EG1011 AND EG1012 AND MA1000 AND MA1003 AND (PH1005 OR EG1001) OR 36CP	<b>Major Core:</b> <u>EG4013</u> Asset Management, Maintenance and Reliability PREREQ: (EG1000 AND EG1002 AND EG1010 AND EG1011 AND EG1012 AND MA1000 AND MA1003 AND (PH1005 OR EG1001)) OR 36CP
	<b>Major Core:</b> <u>ME4513</u> Advanced Fluid Mechanics PREREQ: CS3008	<b>Major Core:</b> <u>ME4515</u> Advanced Mechanical Engineering Design PREREQ: ME3525
<b>Minor Core List 1:</b>	<b>Major Core:</b> <u>ME4522</u> Energy, Conversion and Refrigeration PREREQ: ME2512	

**Further Degree Options:**

<b>Minor Core List 1:</b>	
<b>Study Period 1 – SP1</b>	<b>Study Period 2 – SP2</b>
<u>MA3211</u> Mathematical Modelling and Differential Equations PREREQ: MA2000 AND (MA2210 OR MA2201)	<u>MA2405</u> Advanced Statistical Modelling PREREQ: MA1401 OR BZ2001 OR MA2401 OR SC2202 OR SC2209 AND MA1000
<u>SC2202</u> Quantitative Methods in Science PREREQ: SC1102 OR MA1020 OR MA1000 OR MATH B OR EQUIVALENT	<u>MA2900</u> Mathematics Content Knowledge for Lower Secondary School Teaching PREREQ: MA1000
	<u>MA3210</u> Probability and Stochastic Processes PREREQ: MA2000 AND (MA2210 OR MA2201)
	<u>MA3212</u> Optimisation and Operations Research PREREQ: MA2000 AND (MA2210 OR MA2201)