

RECOMMENDED STUDY PLAN

2021-2022

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

NAME _____ MINOR Data Science (DSC)

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

	Study Period 1 - SP1	Study Period 2 - SP2
Year 2	Degree Core: <u>MA2000</u> Mathematics for Scientists and Engineers PREREQ: MA1003	Major Core: <u>EG2010</u> Materials Science and Engineering
	Major Core: <u>CS2001</u> Engineering Strength of Materials PREREQ: EG1011	Major Core: <u>ME2525</u> Machine Element Design PREREQ: CS2001
	Major Core: <u>ME2512</u> Thermofluid Mechanics PREREQ: EG1011	Major Core: <u>EE3600</u> Automatic Control 1 PREREQ: EG1012 AND MA2000
	Major Core: <u>ME2521</u> Dynamics of Machine Elements PREREQ: EG1011	Minor Core: <u>MA1580</u> Foundations of Data Science PREREQ: MA1000 OR MA1020 OR MA0020 OR MATHS B

	Study Period 1 - SP1	Study Period 2 - SP2
Year 3	Major Core: <u>EG3001</u> Finite Element Analysis PREREQ: EG1002 AND EG1011 AND MA2000	Major Core: <u>CS3008</u> Fluid Mechanics PREREQ: MA2000 AND ME2512
	Major Core: <u>ME3511</u> Dynamics and Acoustics PREREQ: MA2000 AND ME2521	Major Core: <u>ME3512</u> Heat and Mass Transfer PREREQ: MA2000
	Major Core: <u>ME3515</u> Advanced Manufacturing Engineering – offered EVEN years only* PREREQ: ME2525	Major Core: <u>ME3525</u> Mechanical Design PREREQ: ME2525
	Minor Core: <u>SC2202</u> Quantitative Methods in Science PREREQ: SC1102 or MA1020 or MA1000 or Math B or Equivalent	Minor Core: <u>MA2405</u> Advanced Statistical Modelling PREREQ: MA1401 OR BZ2001 OR MA2401 OR SC2202 OR SC2209 OR MA1000

Year 4	Study Period 1 - SP1	Study Period 2 - SP2
	Degree Core: <u>EG4011</u> Thesis Part 1 of 2 PREREQ: 72CP	Degree Core: <u>EG4012</u> Thesis Part 2 of 2 PREREQ: EG4011
	Degree Core: <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	Major Core: <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
	Major Core: <u>ME4513</u> Advanced Fluid Mechanics PREREQ: CS3008	Major Core: <u>ME4515</u> Advanced Mechanical Engineering Design PREREQ: ME3525
	Minor Core List 1:	Major Core: <u>ME4522</u> Energy, Conversion and Refrigeration PREREQ: ME2512

Further Degree Options:

Minor Core List 1:	
Study Period 1 – SP1	Study Period 2 – SP2
<u>MA3831</u> Natural Language Processing, Web Scraping and Large Data Processing PREREQ: CP1404 AND MA3405	<u>MA3405</u> Statistical Data Mining for Big Data PREREQ: MA2405 OR MA2000 OR SC2202 OR SC2209
	<u>MA3832</u> Neural Network and Deep Learning PREREQ: MA3405 OR MA5405 OR CP1404