

RECOMMENDED STUDY PLAN

2021-2022

DEGREE Bachelor of Engineering (Honours) MAJOR Civil Engineering (CVL)

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>CS2003</u> Introduction to Structural Design PREREQ: CS2001
	Major Core: <u>CS2001</u> Engineering Strength of Materials PREREQ: EG1011	Major Core: <u>CS2005</u> Introduction to Geotechnical Engineering PREREQ: EG1011
	Major Core: <u>CS2002</u> Catchment, Stream and Lake Engineering	Major Core: <u>CS3008</u> Fluid Mechanics PREREQ: MA2000 AND ME2512
	Major Core: <u>ME2512</u> Thermofluid Mechanics 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	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>CS3002</u> Soil Mechanics and Geology PREREQ: CS2005
	Major Core: <u>CS3000</u> Structural Analysis PREREQ: CS2003 AND MA2000	Major Core: <u>CS3003</u> Design of Steel and Concrete Structures PREREQ: CS2003 AND CS3000
	Major Core: <u>CS3001</u> Concrete Engineering PREREQ: CS2001	Major Core: <u>CS3004</u> Transportation Engineering – <i>only offered EVEN years *</i> PREREQ: 48CP
	Minor Core: <u>SC2202</u> – Quantitative Methods in Science PREREQ: SC1102 OR MA1020 OR MA1000 OR Math B or Equivalent	Minor Core List 1:

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
	Major Core: <u>CS4001</u> Foundation Engineering and Rock Mechanics PREREQ: CS3002	Major Core: <u>CS4005</u> Civil Engineering Design PREREQ: CS3001 AND CS3003 AND CS40001 AND CS4002
	Major Core: <u>CS4002</u> Hydraulic and Coastal Engineering PREREQ: CS3008	Major Core: <u>CS4008</u> Water and Wastewater Engineering PREREQ: 48CP INCLUDING CS2002 AND EG1010
	Major Core: <u>CS4010</u> Finite Element Analysis and Structural Dynamics PREREQ: EG1002 AND CS3000 AND MA2000	Minor Core: <u>MA2405</u> – Advanced Statistical Modelling PREREQ: MA1401 OR BZ2001 OR MA2401 OR SC2202 OR SC2209 and MA1000

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