JAMES COOK UNIVERSITY AUSTRALIA

The information provided is designed to provide helpful information on your study plan. Changes to subject information after this time may affect your study plan. Please refer to the enrolment resources for up to date information.

RECOMMENDED STUDY PLAN 2021

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

	Study Period 1 - SP1	Study Period 2 - SP2
Year 2	**Degree Core:** MA2000 Mathematics for Scientists and Engineers **PREREQ: MA1003**	**Major Core:** CS2003 Introduction to Structural Design **PREREQ: CS2001**
	Major Core: CS2001 Engineering Strength of Materials **PREREQ: EG1011**	**Major Core:** CS2005 Introduction to Geotechnical Engineering **PREREQ: EG1011**
	Major Core: CS2002 Catchment, Stream and Lake Engineering	**Major Core:** CS3008 Fluid Mechanics **PREREQ: MA2000 AND ME2512**
	Major Core: ME2512 Thermofluid Mechanics **PREREQ: EG1011**	**Minor Core:** MA1580 Foundations of Data Science **PREREQ: MA1000 OR MA1020 OR MATHS B**

	Study Period 1 - SP1	Study Period 2 - SP2
Year 3	**Degree Core:** EG3000 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:** CS3002 Soil Mechanics and Geology **PREREQ: CS2005**
	Major Core: CS3000 Structural Analysis **PREREQ: CS2003 AND MA2000**	**Major Core:** CS3003 Design of Steel and Concrete Structures **PREREQ: CS2003 AND CS3000**
	Major Core: CS3001 Concrete Engineering **PREREQ: CS2001**	**Major Core:** CS3004 Transportation Engineering – *only offered EVEN years **
	Minor Core: SC2202 Quantitative Methods in Science **PREREQ: SC1102 OR MA1020 OR MATHS B OR EQUIVALENT**	**Minor Core:** MA2405 Advanced Statistical Modelling **PREREQ: MA1401 OR MA2401 OR SC2202/SC2209**

**Will need to swap with a subject in Minor core list 1 depending on the year.*

	Study Period 1 - SP1	Study Period 2 - SP2
Year 4	**Degree Core:** EG4011 Thesis Part 1 of 2 **PREREQ: 72CP**	**Degree Core:** EG4012 Thesis Part 2 of 2 **PREREQ: EG4011**
	Major Core: CS4001 Foundation Engineering and Rock Mechanics **PREREQ: CS3002**	**Major Core:** CS4005 Civil Engineering Design **PREREQ: CS3001 AND CS3003 AND CS40001 AND CS4002**
	Major Core: CS4002 Hydraulic and Coastal Engineering **PREREQ: CS3008**	**Major Core:** CS4008 Water and Wastewater Engineering **PREREQ: CS2002 AND EG1010**
	Major Core: CS4010 Finite Element Analysis and Structural Dynamics **PREREQ: EG1002 AND CS3000 AND MA2000**	**Minor Core List 1:**

Further Degree Options:

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