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 2021-2022

DEGREE Bachelor of Engineering (Honours) MAJOR Chemical Engineering (CEM)

NAME _____ MINOR Physics (PHY)

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:** CH1002 Chemistry: Principles & Applications **PREREQ: CH1001 OR CH1011**
	Major Core: CH1001 Chemistry: A Central Science **PREREQ: CH1020 OR EG1010 OR SENIOR CHEMISTRY**	**Major Core:** CL2502 Chemical Engineering Thermodynamics **PREREQ: CL2501 AND MA2000**
	Major Core: CL2501 Process Analysis **PREREQ: EG1010**	**Major Core:** CS3008 Fluid Mechanics **PREREQ: MA2000 AND ME2512**
	Minor Core: PH2002 Classical Mechanics and Quantum Physics 1 **PREREQ: MA1003 AND PH1005 AND (PH1006 OR PH1007 OR (EG1012 AND EG1011))**	**Minor Core List:** *see tables below for details*

	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:** CH2103 Analytical Chemistry **PREREQ: CH1001 OR CH1011**
	Major Core: CL3021 Mass Transfer Operations **PREREQ: CL2501 AND MA2000**	**Major Core:** EE3600 Automatic Control 1 **PREREQ: EG1012 AND MA2000**
	Major Core: CL3030 Reactor Design **PREREQ: CL2501 AND MA2000**	**Major Core:** ME3512 Heat and Mass Transfer **PREREQ: MA2000**
	Major Core: ME2512 Thermofluid Mechanics **PREREQ: EG1011**	**Major Core:** CL4538 Bioprocess Engineering **PREREQ: CL2502 OR CL3010 AND CL3021 AND CL3030**

	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: CL4040 Safety, Environment and Sustainability in the Process Industries **PREREQ: 48CP**	**Major Core:** CL4537 Minerals and Solids Processing **PREREQ: 48CP**
	Major Core: CL4071 Chemical Engineering Design (Part 1 of 2) **PREREQ: CL3010 AND CL3021 AND CL3030 AND CL4538 AND CS3008 AND ME3512**	**Major Core:** CL4072 Chemical Engineering Design (Part 2 of 2) **PREREQ: CL4071**
	Minor Core List: *see tables below for details*	**Minor Core List:** *see tables below for details*

Further Degree Options: Select 1 Subject from List 1 AND 2 subjects from List 1 OR List 2

Minor Core List 1:	
Study Period 1 – SP1	**Study Period 2 – SP2**
PH2019 Introduction to Electromagnetism Optics and Early Quantum **PREREQ: (EG1012 OR PH1005) AND MA1003**	PH2240 Atomic and Nuclear Physics **PREREQ: PH2002 AND MA1003**
PH3008 Statistical Mechanics and Transport **PREREQ: PH2019 AND PH2002 AND MA2000**	

Minor Core List 2:	
Study Period 1 – SP1	**Study Period 2 – SP2**
PH3019 Electromagnetic Phenomena **PREREQ: MA2000 AND PH2019**	PH3002 Quantum Physics 2 **PREREQ: MA2000 AND PH2002**
MA3211 Mathematical Modelling and Differential Equations **PREREQ: MA2000 AND (MA2210 OR MA2201)**	PH3006 Oceanography and Meteorology **PREREQ: MA2000 AND PH2019**
	MA2210 Linear Algebra **PREREQ: MA1003**