

Bachelor of Engineering (Honours) [Embedded] (Chemical Engineering) – Bachelor of Science (Science Major)

(MA1020 – Preparatory Mathematics Required)

Useful study planning/enrolment resources:

[Course and Subject Handbook](#)

[Academic Calendars](#)

[Class Registration](#)

[Enrolment Resources](#)

The information in the study planner is current at the time of creation may be subject to future change.

Attention International Student visa holders: To remain compliant with your enrolments requirements as a Student visa holder you are required to enrol in at least one On-Campus, Multi-Modal or WIL subject offering in each compulsory study period and you cannot enrol in more than one third (33%) of your total course load through online or distance learning. To complete your course within your CoE duration students must maintain sufficient subject enrolment.

If there are only Online subject offerings for you to select in a compulsory study period, contact enrolments@jcu.edu.au urgently for enrolment advice.

The College of Science and Engineering will be offering some subjects in Block 1 and Block 2 (see the [Academic Calendar](#) for Block 1 and 2 dates). International students must maintain enrolment in subjects across the whole Trimester 1 period (January – April) and can do this by enrolling in a combination of TR1, Block 1 and/or Block 2 subjects.

Please note: The trimesters in which subjects are offered vary by major. Refer to the JCU Handbook for details on when subjects in your major are available.

	TRIMESTER 1	TRIMESTER 2	TRIMESTER 3
2026	EG1000:03 Engineering 1	MA1000:03 Mathematical Foundations <i>PREREQ: MA1020 or MA0020 or BR0202 or High school subjects: Mathematical Methods or Specialist Mathematics (or equivalent such as Maths B or Maths C)</i>	EG1011:03 Statics and Dynamics <i>PREREQ: Allow concurrent enrolment in PH1005</i>
	EG1002:03 Computing and Sensors	PH1005:03 Newtonian Physics <i>PREREQ: Maths B or MA1020 or MA0020 or MA1000 or MA1008 OR admission to 116209, 116409 or 116309. Allow concurrent for MA1020, MA1000 and MA1008</i>	EG1010:03 Process Engineering
	MA1020:03 Preparatory Mathematics	Engineering Major CP1407:03 Introductory Machine Learning and Data Science	MA1003:03 Mathematical Techniques <i>PREREQ: MA1000 or MA1011 or MA1009</i>

*Studying all EG Level 1 subjects in 1st year is recommended as this provides the required knowledge to determine your major pathway (for a total of 9 subjects this year) This choice also allows for a lighter 7-subject load in your final year when completing your thesis.

2027	TRIMESTER 1	TRIMESTER 2	TRIMESTER 3
	Engineering Major CL2501:03 Process Analysis and Sustainability <i>PREREQ: EG1010</i>	Engineering Major CH1001:03 Chemistry: The Central Science <i>PREREQ: BR0301, CH1020, CH0020 or EG1010 or High School Senior Chemistry or admission to 71510, 116910, 70309, 108209, 70809, 71809, 115309 or 119209</i>	EG1012:03 Electric Circuits
	Science Major	Science Major	Engineering Major CH1002:03 Chemistry: Principles and Applications <i>PREREQ: CH1001 or CH1011 and allow concurrent for CH1011 and CH1001</i>
	Science Major		Engineering Major EG2008:03 Fluid Mechanics <i>PREREQ: EG1011 and MA2000</i>

2028	TRIMESTER 1	TRIMESTER 2	TRIMESTER 3
	MA2000:03 Mathematics for Scientists and Engineers <i>PREREQ: MA1003</i>	Engineering Major CL2502:03 Chemical Engineering Thermodynamics <i>PREREQ: CL2501 and MA2000</i> <i>Only offered in even years</i>	Engineering Major CH2103:03 Analytical Chemistry <i>PREREQ: CH1001 or CH1011</i>
	SC2202:03 Quantitative Methods in Science <i>PREREQ: SC1102 or SC1109 or Admission to 101510, 116209, 116309 or 116409</i> OR SC2209:03 Quantitative Methods in Science – Advanced <i>PREREQ: MA1003 and SC1109 and 6 credit points of other Level 1 Subjects</i>	Engineering Major CL4537:03 Minerals and Solids Processing <i>PREREQ: 48 credit points toward BEngineering</i> <i>Only offered in even years</i>	Science Major
	Science Major	Select 3 credit points of any Level 2, 3 or 5 Science Subject <i>*Recommended students complete SC3003:03 Science Research Internship or SC3008:03 Professional Placement</i>	

2029	Vac work (Dec-Feb)	TRIMESTER 2	TRIMESTER 3
	Time available for work placements with engineering employers	Engineering Major CL4538:03 Bioprocess Engineering <i>PREREQ: CL2501 AND CL3021</i> Only offered in odd years	Engineering Major EE3600:03 Automation and Control Systems <i>PREREQ: (EG1012 and MA2000) or Admittance into the Master of Engineering (Professional)</i>
	BLOCK 2 (Mar-Apr)		
	EG3000:03 Introduction to Systems Engineering and Project Management <i>PREREQ: EG1000 and EG1002 and EG1010 and EG1011 and EG1012 and MA1000 and MA1003 and (PH1005 or EG1001) or 36 credit points of subjects</i>	Engineering Major CL3030:03 Reactor Design <i>PREREQ: CL2501 and MA2000</i> Only offered in odd years	Engineering Major ME3512:03 Heat and Mass Transfer <i>PREREQ: MA2000</i>
	BLOCK 2 (Mar-Apr)		
	Engineering Major CL3021:03 Mass Transfer Operations <i>PREREQ: CL2501 and MA2000</i>		Select 3 credit points of any Level 2, 3 or 5 Science Subject

2030	Vac work (Dec-Feb)	TRIMESTER 2	TRIMESTER 3
	Time available for work placements with engineering employers	EG4011:03 Thesis Part 1 of 2 <i>PREREQ: 60 credit points</i>	EG4012:03 Thesis Part 2 of 2 <i>PREREQ: EG4011</i>
	BLOCK 2 (Mar-Apr)		
	Engineering Major CL4040:03 Safety, Environment and Sustainability in the Process Industries <i>PREREQ: CL2501</i>	Engineering Major CL4072:03 Chemical Engineering Design: (Part 2 of 2) <i>PREREQ: CL4071</i>	Science Major
	BLOCK 2 (Mar-Apr)		
	Engineering Major CL4071:03 Chemical Engineering Design: (Part 1 of 2) <i>PREREQ: (CL2502 or CL3010) and CL3021 and CL3030 and (CS3008 or EG2008) and ME3512</i>	Science Major	

COURSE HANDBOOK

[Bachelor of Engineering \(Honours\) \[Embedded\] – Bachelor of Science](#)
[Chemical Engineering Major](#)