

Bachelor of Engineering (Honours) [Embedded] (Mechanical 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>	EG1012:03 Electric Circuits
	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
	MA2000:03 Mathematics for Scientists and Engineers <i>PREREQ: MA1003</i>	Engineering Major EG2010:03 Materials Science and Engineering	EG1010:03 Process Engineering
	Engineering Major CS2001:03 Engineering Strength of Materials <i>PREREQ: EG1011</i>	Science Major	Engineering Major EG2008:03 Fluid Mechanics <i>PREREQ: MA2000 and EG1011</i>
	Science Major		Engineering Major ME2521:03 Dynamics of Machine Elements <i>PREREQ: EG1011</i>

2028	TRIMESTER 1	TRIMESTER 2	TRIMESTER 3
	SC2202:03 Quantitative Methods in Science <i>PREREQ: SC1102 or SC1109 or Admission to 116209, 116309 or 116409</i> OR SC2209:03 Quantitative Methods in Science – Advanced <i>PREREQ: MA1003 and SC1109, plus 6 credit points of other Level 1 Subjects</i>	Engineering Major ME3511:03 Dynamics and Acoustics <i>PREREQ: MA2000 and ME2521</i>	Engineering Major ME2525:03 Machine Element Design <i>PREREQ: CS2001</i>
	Science Major	Science Major	Engineering Major ME3512:03 Heat and Mass Transfer <i>PREREQ: MA2000</i>
	Select 3 credit points of any Level 2, 3 or 5 Science Subject		Science Major

2029	Vac work (Dec-Feb)	TRIMESTER 2	TRIMESTER 3
	Time available for work placements with engineering employers	Engineering Major ME3515:03 Advanced Manufacturing Engineering PREREQ: ME2525 and EG2010	Engineering Major EE3600:03 Automation and Control Systems PREREQ: (EG1012 and MA2000) or admittance into Master of Engineering (Professional)
	BLOCK 2 (Mar-Apr)		
	EG3000:03 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 36 credit points of subjects	Engineering Major ME3525:03 Mechanical Design and Bulk Materials Handling PREREQ: ME2525	Science Major
	BLOCK 2 (Mar-Apr)		
	Engineering Major EG3001:03 Finite Element Analysis PREREQ: EG1002 and EG1011 and MA2000	Science Major	Science Major

2030	Vac work (Dec-Feb)	TRIMESTER 2	TRIMESTER 3
	Time available for work placements with engineering employers	EG4011:03 Thesis Part 1 of 2 PREREQ: 60 credit points	EG4012:03 Thesis Part 2 of 2 PREREQ: EG4011
	BLOCK 2 (Mar-Apr)		
	Engineering Major ME4513:03 Advanced Fluid Mechanics PREREQ: CS3008 or EG2008	Engineering Major EG4013:03 Asset Management, Maintenance and Reliability PREREQ: 24 credit points	Select 3 credit points of any Level 2, 3 or 5 Science Subject *Recommended students complete SC3003:03 Science Research Internship or SC3008:03 Professional Placement
	BLOCK 2 (Mar-Apr)		
	Engineering Major ME4515:03 Advanced Mechanical Engineering Design PREREQ: ME3525	Engineering Major ME4522:03 Thermodynamics and Energy Conversion PREREQ: EG2008 or ME2512	

COURSE HANDBOOK

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