

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 you are receiving US Federal Aid, there are further compliance considerations. Please contact financialaid@jcu.edu.au to confirm compliance of your subject selections.

Student Resources: If you require advice about your study plan, choosing electives, or which subjects to enrol in, please contact your major advisor or degree coordinator ([CSE Course and Major Advisors](#)). For information on available elective subject options please also refer to the Study Area guide ([2026 JCU STUDY AREA GUIDE — College of Science & Engineering](#)).

Your plan may include subjects labelled with ***Intensive on-campus requirements**. These subjects involve mandatory on-campus or fieldwork attendance with extended hours over a dedicated face-to-face period. Please check the face-to-face dates for the subject in the [subject handbook](#) and do not enrol in subjects with overlapping face-to-face dates. For more information, see the CSE Student Guide to Succeeding in Trimester 2 Intensives on the CSE [Student Resources](#) webpage.

	TRIMESTER 1	TRIMESTER 2	TRIMESTER 3
2026			EG1010:03 Process Engineering
			EG1012:03 Electric Circuits
			MA1020:03 Preparatory Mathematics

	TRIMESTER 1	TRIMESTER 2	TRIMESTER 3
2027	EG1000:03 Engineering 1	MA1003:03 Mathematical Techniques <i>PREREQ: MA1000 or MA1011 or MA1009</i>	EG1011:03 Statics and Dynamics <i>PREREQ: 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 MA1000 and MA1008</i>	Science Major
	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>		Science Major

	TRIMESTER 1	TRIMESTER 2	TRIMESTER 3
2028	MA2000:03 Mathematics for Scientists and Engineers <i>PREREQ: MA1003</i>	Engineering Major CP1407:03 Introductory Machine Learning and Data Science	Engineering Major EG2008:03 Fluid Mechanics <i>PREREQ: MA2000 and EG1011</i>
	SC2202:03 Quantitative Methods in Science <i>PREREQ: SC1102 or SC1109</i> OR SC2209:03 Quantitative Methods in Science – Advanced <i>PREREQ: MA1003 and ((SC1109 plus 6 credit points of other Level 1 subjects) or admission in 116409)</i>	Science Major	Engineering Major ME2521:03 Dynamics of Machine Elements <i>PREREQ: EG1011</i>
	Engineering Major CS2001:03 Engineering Strength of Materials <i>PREREQ: EG1011</i>		Engineering Major ME2525:03 Machine Element Design <i>PREREQ: CS2001</i>

2029	TRIMESTER 1	TRIMESTER 2	TRIMESTER 3
	Science Major	Engineering Major EG2010:03 Materials Science and Engineering	Science Major
	Science Major	Engineering Major ME3511:03 Dynamics and Acoustics <i>PREREQ: MA2000 and ME2521</i>	Science Major
	Select 3 credit points of any Level 2 or 3 Science Subject	Engineering Major ME3525:03 Mechanical Design and Bulk Materials Handling <i>PREREQ: ME2525</i>	

2030	Vac work (Dec-Feb)	TRIMESTER 2	TRIMESTER 3
	<i>Time available for work placements with engineering employers</i>	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)		
	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 ME3515:03 Advanced Manufacturing Engineering <i>PREREQ: ME2525 and EG2010</i>	Engineering Major EE3600:03 Automation and Control Systems <i>PREREQ: EG1012 and MA2000</i>
	BLOCK 2 (Mar-Apr)		
	Engineering Major EG3001:03 Finite Element Analysis <i>PREREQ: EG1002 and EG1011 and MA2000</i>	Science Major	Engineering Major ME3512:03 Heat and Mass Transfer <i>PREREQ: MA2000</i>

2031	Vac work (Dec-Feb)	TRIMESTER 2	TRIMESTER 3
	<i>Time available for work placements with engineering employers</i>	Engineering Major EG4013:03 Asset Management, Maintenance and Reliability <i>PREREQ: Completion of 24 credit points</i>	
	BLOCK 2 (Mar-Apr) Engineering Major ME4513:03 Advanced Fluid Mechanics <i>PREREQ: CS3008 or EG2008</i>	Engineering Major ME4522:03 Thermodynamics and Energy Conversion <i>PREREQ: EG2008 or CS3008</i>	
	BLOCK 2 (Mar-Apr) Engineering Major ME4515:03 Advanced Mechanical Engineering Design <i>PREREQ: ME3525</i>	Select 3 credit points of any Level 2 or 3 Science Subject <i>*Recommended students complete SC3003:03 Science Research Internship or SC3008:03 Professional Placement</i>	

COURSE HANDBOOK

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