

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

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 (or SC1101:03 Science, Technology and Truth if already satisfied via previous study)	Engineering Major CP1407:03 Introductory Machine Learning and Data Science	EG1012:03 Electric Circuits

*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.

	TRIMESTER 1	TRIMESTER 2	TRIMESTER 3
2027	Engineering Major CS2001:03 Engineering Strength of Materials <i>PREREQ: EG1011</i>	Engineering Major EG2010:03 Materials Science and Engineering	MA1003:03 Mathematical Techniques <i>PREREQ: MA1000 or MA1011 or MA1009</i>
	Science Major	Science Major	Engineering Major EG2008:03 Fluid Mechanics <i>PREREQ: MA2000 and EG1011</i>
	Select 3 credit points of any Level 2, 3 or 5 Science Subject		Engineering Major ME2521:03 Dynamics of Machine Elements <i>PREREQ: EG1011</i>

	TRIMESTER 1	TRIMESTER 2	TRIMESTER 3
2028	MA2000:03 Mathematics for Scientists and Engineers <i>PREREQ: MA1003</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>
	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>	Science Major	Engineering Major ME3512:03 Heat and Mass Transfer <i>PREREQ: MA2000</i>
	Science Major		Science Major

		Vac work (Dec-Feb)	TRIMESTER 2	TRIMESTER 3
2029		<i>Time available for work placements with engineering employers</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) or admittance into 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 ME3525:03 Mechanical Design and Bulk Materials Handling <i>PREREQ: ME2525</i>	Science Major
		BLOCK 2 (Mar-Apr)		
	Engineering Major EG3001:03 Finite Element Analysis <i>PREREQ: EG1002 and EG1011 and MA2000</i>	Science Major	Science Major	

		Vac work (Dec-Feb)	TRIMESTER 2	TRIMESTER 3
2030		<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)		
		Engineering Major ME4513:03 Advanced Fluid Mechanics <i>PREREQ: CS3008 or EG2008</i>	Engineering Major EG4013:03 Asset Management, Maintenance and Reliability <i>PREREQ: 24 credit points</i>	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>
		BLOCK 2 (Mar-Apr)		
	Engineering Major ME4515:03 Advanced Mechanical Engineering Design <i>PREREQ: ME3525</i>	Engineering Major ME4522:03 Thermodynamics and Energy Conversion <i>PREREQ: EG2008 or ME2512</i>		

COURSE HANDBOOK

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