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

Useful study planning/enrolment resources:

Subject Search
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.

	TRIMESTER 1	TRIMESTER 2	TRIMESTER 3
2025	EG1000:03 Engineering 1	EG1011:03 Statics and Dynamics *PREREQ: Allow concurrent enrolment in PH1005*	EG1010:03 Process Engineering
	EG1002:03 Computing and Sensors	MA1000:03 Mathematical Foundations *PREREQ: MA1020 or MA0020 or Maths B or Maths C*	EG1012:03 Electric Circuits
	MA1020:03 Preparatory Mathematics (or SC1101:03 Science, Technology and Truth if already satisfied via previous study)	PH1005:03 Newtonian Physics *PREREQ: Maths B or MA1020 or MA0020 or MA1000 or MA1008 OR admission to 116209, 116409 or 116309. Allow concurrent for MA1000 and MA1008*	MA1003:03 Mathematical Techniques *PREREQ: MA1000 or MA1011 or MA1009*

*Recommended studying all EG Level 1 subjects in 1st year 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
2026	MA2000:03 Mathematics for Scientists and Engineers *PREREQ: MA1003*	**Engineering Major** CP1407:03 Introductory Machine Learning and Data Science	SC2202:03 Quantitative Methods in Science *PREREQ: SC1102 or SC1109 or Admission to 116209, 116309 or 116409* **OR** SC2209:03 Quantitative Methods in Science – Advanced (TR1) *PREREQ: MA1003 and SC1109, plus 6cp of Level 1 Subjects*
	Engineering Major CS2001:03 Engineering Strength of Materials *PREREQ: EG1011*	**Science Major**	**Engineering Major** EG2008:03 Fluid Mechanics *PREREQ: MA2000 and EG1011*
	Science Major		**Engineering Major** ME2525:03 Machine Element Design *PREREQ: CS2001*

	TRIMESTER 1	TRIMESTER 2	TRIMESTER 3
2027	**Science Major**	**Engineering Major** EG2010:03 Materials Science and Engineering	**Engineering Major** ME2521:03 Dynamics of Machine Elements *PREREQ: EG1011*
	Science Major	**Science Major**	**Engineering Major** ME3525:03 Mechanical Design *PREREQ: ME2525*
		Select 3 credit points of any Level 2 or 3 Science Subject	**Science Major**

	Vac work (Dec-Feb)	TRIMESTER 2	TRIMESTER 3
2028	*Time available for work placements with engineering employers*	**Engineering Major** ME3515:03 Advanced Manufacturing Engineering *PREREQ: ME2525 and EG2010*	**Engineering Major** EE3600:03 Automatic Control 1 *PREREQ: EG1012 and MA2000*
	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** ME3511:03 Dynamics and Acoustics *PREREQ: MA2000 and ME2521*	**Science Major**
	BLOCK 2 (Mar-Apr) **Engineering Major** EG3001:03 Finite Element Analysis *PREREQ: EG1002 and EG1011 and MA2000*	**Engineering Major** ME3512:03 Heat and Mass Transfer *PREREQ: MA2000*	**Science Major**

	Vac work (Dec-Feb)	TRIMESTER 2	TRIMESTER 3
2029	*Time available for work placements with engineering employers*	EG4011:03 Thesis Part 1 of 2 *PREREQ: (72 credit points in 46110 or 102810 or 102809 or 116209) OR (96 credit points in 46210 or 102910 or 102909) OR (96 credit points in 103310 or 112610 or 1112609 or 116309)*	EG4012:03 Thesis Part 2 of 2 *PREREQ: EG4011*
	BLOCK 2 (Mar-Apr) **Engineering Major** ME4515:03 Advanced Mechanical Engineering Design *PREREQ: ME3525*	**Engineering Major** EG4013:03 Asset Management, Maintenance and Reliability *PREREQ: Completion of 24 credit points*	Select 3 credit points of any Level 2 or 3 Science Subject **Recommended students complete SC3003:03 Science Research Internship or SC3008:03 Professional Placement*
	BLOCK 2 (Mar-Apr) **Engineering Major** ME4513:03 Advanced Fluid Mechanics *PREREQ: CS3008 or EG2008*	**Engineering Major** ME4522:03 Energy, Conversion and Refrigeration *PREREQ: EG2008 or CS3008*	

COURSE HANDBOOK

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