Bachelor of Engineering (Honours) [Embedded] (Electrical and Electronic Engineering) – Bachelor of Science (Data Science)

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
			Science Major MA1580:03 Foundations of Data Science

	TRIMESTER 1	TRIMESTER 2	TRIMESTER 3
2027	EG1000:03 Engineering 1	MA1003:03 Mathematical Techniques *PREREQ: MA1000 or MA1011 or MA1009*	EG1011:03 Statics and Dynamics *PREREQ: PH1005*
	EG1002:03 Computing and Sensors	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 MA1020, MA1000 and MA1008*	**Engineering Major** CP1404:03 Programming II *PREREQ: CP1801 or CP1401 or CP1200 or EG1002 or CP2200 or SC1201*
	MA1000:03 Mathematical Foundations *PREREQ: MA1020 or MA0020 or BR0202 or High school subjects: Mathematical Methods or Specialist Mathematics (or equivalent such as Maths B or Maths C)*	**Science Major** *Select 3 credit points of any undergraduate subject	

	TRIMESTER 1	TRIMESTER 2	TRIMESTER 3
2028	SC1101:03 Science, Technology and Truth	**Engineering Major** CP1407:03 Introductory Machine Learning and Data Science	**Engineering Major** EE2300:03 Electronics and Circuit Design *PREREQ: EG1012*
	MA2000:03 Mathematics for Scientists and Engineers *PREREQ: MA1003*	**Engineering Major** EE2201:03 Circuit Theory *PREREQ: EG1012 and MA2000. Allow concurrent enrolment for MA2000.*	**Science Major** MA2405:03 Advanced Statistical Modelling *PREREQ: MA1401 or BZ2001 or MA2401 or SC2202 or SC2209 and MA1000*
	SC2202:03 Quantitative Methods in Science *PREREQ: SC1102 or SC1109* **OR** SC2209:03 Quantitative Methods in Science – Advanced *PREREQ: MA1003 and ((SC1109 plus 6 credit points of other Level 1 subjects) or admission in 116409)*		**Science Major** MA3405:03 Statistical Data Mining for Big Data *PREREQ: MA2405 or MA2000 or SC2202 or SC2209*

	TRIMESTER 1	TRIMESTER 2	TRIMESTER 3
2029	**Engineering Major** CC2511:03 Embedded Systems Design *PREREQ: EG1002 or CP1300 or CP1404*	**Science Major** MA3212:03 Optimisation and Operations Research *PREREQ: MA2000* **OR** MA3832:03 Neural Network and Deep Learning *PREREQ: MA3405 or MA5405 and CP1404 or admission to BSc(Hons) 115809*	**Engineering Major** EE3400:03 Power System Analysis *PREREQ: EE2201*
	Science Major MA3831:03 Natural Language Processing, Web Scraping and Large Data Processing *PREREQ: CP1404 and MA3405*	**Engineering Major** PH2019:03 Electromagnetism and Optics *PREREQ: (EG1012 or PH1005) and MA1003*	**Engineering Major** EE3600:03 Automatic Control 1 *PREREQ: EG1012 and MA2000*
	Select 3 credit points of any Level 2 or 3 Science Subject		**Science Major** Select 3 credit points from List 1

	Vac work (Dec-Feb)	TRIMESTER 2	TRIMESTER 3
2030	*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) 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** CC3501:03 Embedded Systems Design and Interfacing *PREREQ:CC2511 and CP1404*	**Engineering Major** EE3700:03 Communications Systems Principles *PREREQ: EE2201*
	BLOCK 2 (Mar-Apr) **Engineering Major** EE3300:03 Electronics Applications *PREREQ: EE2300*	**Engineering Major** EE3010:03 Digital Signal Processing *PREREQ: 48 credit points from the Bachelor of Engineering*	**Science Major** Select 3 credit points from List 1

	Vac work (Dec-Feb)	TRIMESTER 2	TRIMESTER 3
2031	*Time available for work placements with engineering employers*	**Engineering Major** EE4310:03 Power Electronics *PREREQ: EE2201 and EE3600*	
	BLOCK 2 (Mar-Apr) **Engineering Major** EE4500:03 Electrical and Electronic Systems Design Project *PREREQ: 48 credit points in Bachelor of Engineering – Bachelor of Science*	**Engineering Major** EE4400:03 Renewable System Integration *PREREQ: EE3400*	
	BLOCK 2 (Mar-Apr) **Engineering Major** EE4600:03 Control System Design *PREREQ: EE3600*	Select 3 credit points of any Level 2 or 3 Science Subject **Note: Students are encouraged to select SC3003:03 Science Research Internship* ***OR*** *SC3008:03 Professional Placement* **Students wishing to enrol in SC3003 must have a minimum GPA of 5.5 and a supervisor for their internship.*	

COURSE HANDBOOK

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Electrical and Electronic Engineering Major
Data Science Major