

# Bachelor of Engineering (Honours) (Mechanical Engineering)

(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](mailto: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
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	Select 3 credit points of any undergraduate subjects	MA1003:03 Mathematical Techniques <i>PREREQ: MA1000 or MA1011 or MA1009</i>

\*Studying all EG Level 1 subjects in 1<sup>st</sup> 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 4<sup>th</sup> year when completing your thesis.

\*\*Students that have not completed the required Mathematics learning through High School studies are unable to complete an Engineering Minor and will be required to choose MA1020 Preparatory Mathematics as one of their Undergraduate elective subjects.

		TRIMESTER 1	TRIMESTER 2	TRIMESTER 3
<b>2027</b>		MA2000:03 Mathematics for Scientists and Engineers <i>PREREQ: MA1003</i>	<b>Major</b> CP1407:03 Introductory Machine Learning and Data Science	EG1010:03 Process Engineering
		<b>Major</b> CS2001:03 Engineering Strength of Materials <i>PREREQ: EG1011</i>	<b>Major</b> EG2010:03 Materials Science and Engineering	<b>Major</b> ME2521:03 Dynamics of Machine Elements <i>PREREQ: EG1011</i>
			Select 3 credit points of any undergraduate subjects	<b>Major</b> ME2525:03 Machine Element Design <i>PREREQ: CS2001</i>

		Vac work (Dec-Feb)	TRIMESTER 2	TRIMESTER 3
<b>2028</b>		<i>Time available for work placements with engineering employers</i>	<b>Major</b> ME3511:03 Dynamics and Acoustics <i>PREREQ: MA2000 and ME2521</i>	<b>Major</b> EG2008:03 Fluid Mechanics <i>PREREQ: EG1011 and MA2000</i>
		<b>BLOCK 2 (Mar-Apr)</b>		
		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</i>	<b>Major</b> ME3525:03 Mechanical Design and Bulk Materials Handling <i>PREREQ: ME2525</i>	<b>Major</b> EE3600:03 Automation and Control Systems <i>PREREQ: (EG1012 and MA2000) or admittance into Master of Engineering (Professional)</i>
		<b>BLOCK 2 (Mar-Apr)</b>		
	<b>Major</b> EG3001:03 Finite Element Analysis <i>PREREQ: EG1002 and EG1011 and MA2000</i>	<b>Major</b> ME3515:03 Advanced Manufacturing Engineering <i>PREREQ: ME2525 and EG2010</i>	<b>Major</b> ME3512:03 Heat and Mass Transfer <i>PREREQ: MA2000</i>	

		Vac work (Dec-Feb)	TRIMESTER 2	TRIMESTER 3
<b>2029</b>		<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>
		<b>BLOCK 2 (Mar-Apr)</b>		
		<b>Major</b> ME4513:03 Advanced Fluid Mechanics <i>PREREQ: CS3008 or EG2008</i>	<b>Major</b> EG4013:03 Asset Management, Maintenance and Reliability <i>PREREQ: 24 credit points of subjects</i>	Select 3 credit points of any undergraduate subjects
		<b>BLOCK 2 (Mar-Apr)</b>		
	<b>Major</b> ME4515:03 Advanced Mechanical Engineering Design <i>PREREQ: ME3525</i>	<b>Major</b> ME4522:03 Thermodynamics and Energy Conversion <i>PREREQ: ME2512 or EG2008</i>		

**COURSE HANDBOOK**

[Bachelor of Engineering \(Honours\)](#)

[Mechanical Engineering Major](#)