# Bachelor of Engineering (Honours) (Electrical and Electronic 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 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<br>*PREREQ: MA1020 or MA0020 or BR0202 or High school subjects: Mathematical Methods or Specialist Mathematics (or equivalent such as Maths B or Maths C)* | EG1011:03 Statics and Dynamics<br>*PREREQ: Allow concurrent enrolment in PH1005* |
| | EG1002:03 Computing and Sensors | PH1005:03 Newtonian Physics<br>*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* | EG1012:03 Electric Circuits |
| | MA1020:03 Preparatory Mathematics | Select 3 credit points of any undergraduate subjects | MA1003:03 Mathematical Techniques<br>*PREREQ: MA1000 or MA1011 or MA1009* |

**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 |
|---|---|---|---|
| 2027 | MA2000:03 Mathematics for Scientists and Engineers<br>*PREREQ: MA1003* | **Major**<br>CP1407:03 Introductory Machine Learning and Data Science | EG1010:03 Process Engineering |
| | **Major**<br>CC2511:03 Digital Logic and Embedded Systems<br>*PREREQ: EG1002 or CP1404 or CP1401 or admittance into Master of Engineering (Professional)* | **Major**<br>EE2201:03 Circuit Theory<br>*PREREQ: EG1012 and MA2000. Allow concurrent enrolment for MA2000* | **Major**<br>CP1404:03 Programming II<br>*PREREQ: CP1801 or CP1401 or CP1200 or EG1002 or CP2200 or SC1201* |
| | | Select 3 credit points of any undergraduate subjects | **Major**<br>EE2300:03 Electronics and Circuit Design<br>*PREREQ: EG1012* |

| | Vac work (Dec-Feb) | TRIMESTER 2 | TRIMESTER 3 |
|---|---|---|---|
| 2028 | *Time available for work placements with engineering employers* | **Major**<br>PH2019:03 Electromagnetism and Optics<br>*PREREQ: (EG1012 or PH1005) and MA1003* | **Major**<br>EE3400:03 Power System Analysis<br>*PREREQ: EE2201 or admittance into Master of Engineering (Prof)* |
| | **BLOCK 2 (Mar-Apr)**<br>EG3000:03 Introduction to Systems Engineering and Project Management<br>*PREREQ: EG1000 and EG1002 and EG1010 and EG1011 and EG1012 and MA1000 and MA1003 and (PH1005 or EG1001) or 36 credit points* | **Major**<br>CC3501:03 Embedded Systems Design and Interfacing<br>*PREREQ: (CC2511 and CP1404) or admittance into Master of Engineering (Professional)* | **Major**<br>EE3600:03 Automation and Control Systems<br>*PREREQ: (EG1012 and MA2000) or admittance into Master of Engineering (Professional)* |
| | **BLOCK 2 (Mar-Apr)**<br>**Major**<br>EE3300:03 Electronics Applications<br>*PREREQ: EE2300 or admittance into Master of Engineering (Prof)* | **Major**<br>EE3010:03 Digital Signal Processing<br>*PREREQ: At least 48 credit points from subjects in Bachelor of Engineering or Admission to Master of Engineering (Professional)* | **Major**<br>EE3700:03 Communications Systems Principles<br>*PREREQ EE2201* |

| | Vac work (Dec-Feb) | TRIMESTER 2 | TRIMESTER 3 |
|---|---|---|---|
| 2029 | *Time available for work placements with engineering employers* | EG4011:03 Thesis Part 1 of 2<br>*PREREQ: 60 credit points* | EG4012:03 Thesis Part 2 of 2<br>*PREREQ: EG4011* |
| | **BLOCK 2 (Mar-Apr)**<br>**Major**<br>EE4500:03 Electrical and Electronic Systems Design Project<br>*PREREQ: 48 credit points in Bachelor of Engineering, Bachelor of Engineering-Bachelor of Science, or Bachelor of Engineering-Bachelor of Information Technology* | **Major**<br>EE4400:03 Renewable System Integration<br>*PREREQ: EE3400 or admittance into Master of Engineering (Prof)* | Select 3 credit points of any undergraduate subjects |
| | : **BLOCK 2 (Mar-Apr)**<br>**Major**<br>EE4600:03 Control System Design<br>*PREREQ: EE3600 or admittance into Master of Engineering (Prof)* | **Major**<br>EE4310:03 Power Electronics | |

**COURSE HANDBOOK**

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Electrical and Electronic Engineering Major