# Bachelor of Engineering (Honours)[Embedded] – Bachelor of Information Technology

2027 ENTRY

Electrical and Electronic Engineering

## Useful study planning / enrolment resources

| | | | |
|---|---|---|---|
| Course and Subject Handbook | Academic Calendars | Class Registration | Enrolment Resources |

**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 (JCU STUDY AREA GUIDE — College of Science & Engineering).

**Intensive on-campus requirements:** Subjects labelled with *Intensive on-campus requirements 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.

### How to read this planner

**PREREQ** Prerequisite information **ONLINE** Online offering **PLACEMENT** Placement requirement **INTENSIVE** Intensive on-campus requirement

## 2027

| TRIMESTER 1 | TRIMESTER 2 | TRIMESTER 3 |
|---|---|---|
| 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:** 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 | EG1010:03 Process Engineering |
| MA1020:03 Mathematical Methods<br>(or select 3 credit points of any undergraduate subjects if already satisfied via previous study) | **Major**<br>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.

## 2028

| TRIMESTER 1 | TRIMESTER 2 | TRIMESTER 3 |
|---|---|---|
| CP1402:03 Internet Fundamentals | Select 3 credit points of subjects from List 2 | MA1003:03 Mathematical Techniques<br>**PREREQ:** MA1000 OR MA1011 OR MA1009 |
| **Major**<br>CC2511:03 Digital Logic and Embedded Systems<br>**PREREQ:** EG1002 or CP1401 or CP1404 | Select 3 credit points of any undergraduate subjects | CP1403:03 Design Thinking I |
| Select 3 credit points of subjects from List 1 | | CP1404:03 Programming II<br>**PREREQ:** CP1801 or CP1401 or CP1200 or EG1002 or CP2200 or SC1201 |

## 2029

| TRIMESTER 1 | TRIMESTER 2 | TRIMESTER 3 |
|---|---|---|
| MA2000:03 Mathematics for Scientists and Engineers<br>**PREREQ:** MA1003 | **Major**<br>PH2019:03 Electromagnetism and Optics<br>**PREREQ:** (EG1012 or PH1005) and MA1003 | CP2404:03 Database Modelling |
| CP3407:03 Advanced Software Engineering<br>**PREREQ:** (CP1404 or CP1804 and 18 credit points of CP subjects) or (CP1404 or CP1804 and admittance to Bachelor of Engineering (course codes 102809 or 116209 or 116309)) | **Major**<br>EE2201:03 Circuit Theory<br>**PREREQ:** EG1012 and MA2000. Allow concurrent for MA2000 | CP2406:03 Programming III<br>**PREREQ:** CP1404 or CP1804 or CP1300 |
| Select 3 credit points of subjects from List 2 | | **Major**<br>EE2300:03 Electronics and Circuit Design<br>**PREREQ:** EG1012 |

## 2030

| VAC WORK (Dec-Feb) | TRIMESTER 2 | TRIMESTER 3 |
|---|---|---|
| *Time available for work placements with engineering employers* | **Major**<br>CC3501:03 Embedded Systems Design and Interfacing<br>**PREREQ:** (CC2511 and CP1404 and EE2300) or Admittance into the Master of Engineering (Professional) | **Major**<br>EE3400:03 Power System Analysis<br>**PREREQ:** EE2201 or Admittance into Master of Engineering (Professional) |
| **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>EE3010:03 Digital Singal Processing<br>**PREREQ:** 48 credit points from the Bachelor of Engineering or Admission to the Master of Engineering (Professional) | **Major**<br>EE3600:03 Automation and Control Systems<br>**PREREQ:** (EG1012 and MA2000) or Admittance into the Master of Engineering (Professional) |
| **BLOCK 2 (Mar-Apr)**<br>**Major**<br>EE3300:03 Electronics Applications<br>**PREREQ:** EE2300 or Admittance into the Master of Engineering (Professional) | Select 3 credit points of subjects from List 2 | **Major**<br>Select 3 credit points of any Level 1, 2, or 3 subjects |

## 2031

| VAC WORK (Dec-Feb) | TRIMESTER 2 | TRIMESTER 3 |
|---|---|---|
| *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>EE4310:03 Power Electronics<br>**PREREQ:** EE2201 and EE3600 | **Major**<br>EE3700:03 Communications Systems Principles<br>**PREREQ:** EE2201 |
| **BLOCK 2 (Mar-Apr)**<br>**Major**<br>EE4600:03 Control System Design<br>**PREREQ:** EE3600 or Admission to the Master of Engineering (Professional) | **Major**<br>EE4400:03 Renewable System Integration<br>**PREREQ:** EE3400 or Admission to the Master of Engineering (Professional) | |

# Course handbook

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| Bachelor of Engineering (Honours)[Embedded] - Bachelor of Information Technology | Electrical and Electronic Engineering Major |

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|---|---|
| **Award Title** | Bachelor of Engineering (Honours) – Bachelor of Informaiton Technology |
| **Abbreviation** | BEng(Hons)-BInfTech |
| **Credit Points** | 120 |
| **AQF Level** | Level 8 – Bachelor Honours Degree |
| **Location** | Townsville Bebegu Yumba, Cairns Nguma-bada |
| **Division** | Academy |
| **College** | College of Science and Engineering |
| **Expected Time to Complete** | 5 years |
| **Maximum Time to Complete** | 13 years |
| **Maximum Leave of Absence** | 3 years |
| **CRICOS Code** | 085411M |