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

2027 ENTRY

Civil 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 | **Major**<br>CS2003:03 Introduction to Structural Design<br>**PREREQ:** CS2001 | MA1003:03 Mathematical Techniques<br>**PREREQ:** MA1000 OR MA1011 OR MA1009 |
| **Major**<br>CS2001:03 Engineering Strength of Materials<br>**PREREQ:** EG1011 | 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>CS3001:03 Concrete Engineering<br>**PREREQ:** CS2001 | 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)) | Select 3 credit points of subjects from **List 2** | **Major**<br>CS2002:03 Catchment, Stream and Lake Engineering |
| Select 3 credit points of subjects from **List 2** | | **Major**<br>CS2005:03 Introduction to Geotechnical Engineering<br>**PREREQ:** EG1011 |

## 2030

| VAC WORK (Dec-Feb) | TRIMESTER 2 | TRIMESTER 3 |
|---|---|---|
| *Time available for work placements with engineering employers* | **Major**<br>CS3004:03 Surveying, Construction & Transportation Engineering<br>**PREREQ:** 48 credit points of undergraduate subjects | **Major**<br>EG2008:03 Fluid Mechanics<br>**PREREQ:** EG1011 and MA2000 |
| **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>CS4010:03 Finite Element Analysis and Structural Dynamics<br>**PREREQ:** EG1002 and CS3000 and MA2000 | **Major**<br>CS3002:03 Soil Mechanics<br>**PREREQ:** CS2005 |
| **BLOCK 2 (Mar-Apr)**<br>**Major**<br>CS3000:03 Structural Analysis<br>**PREREQ:** CS2003 and MA2000 | Select 3 credit points of subjects from List 2 | **Major**<br>CS3003:03 Design of Steel and Concrete Structures<br>**PREREQ:** CS2003 and CS3000 |

## 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>CS4001:03 Foundation Engineering and Rock Mechanics<br>**PREREQ:** CS3002 | **Major**<br>CS4005:03 Civil Engineering Design<br>**PREREQ:** CS3001 and CS3003 and CS4001 and CS4002 | CP2406:03 Programming III<br>**PREREQ:** CP1404 or CP1804 or CP1300 |
| **BLOCK 2 (Mar-Apr)**<br>**Major**<br>CS4002:03 Hydraulic and Coastal Engineering<br>**PREREQ:** EG2008 or CS3008 | **Major**<br>CS4008:03 Water and Wastewater Engineering<br>**PREREQ:** 48 credit points of undergraduate subjects including CS2002 and EG1010 | |

## Course handbook

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|---|---|
| Bachelor of Engineering (Honours)[Embedded] - Bachelor of Information Technology | Civil 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 |