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

2027 ENTRY

Chemical 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>CH1001:03 Chemistry: The Central Science<br>**PREREQ:** BR0301, CH1020, CH0020 or EG1010 or High School Senior Chemistry or admission to 71510 or 116910 or 70309 or 108209 or 70809 or 71809 or 115309 or 119209 | MA1003:03 Mathematical Techniques<br>**PREREQ:** MA1000 or MA1011 or MA1009 |
| **Major**<br>CL2501:03 Process Analysis and Sustainability<br>**PREREQ:** EG1010 | Select 3 credit points of subjects from List 1 | CP1403:03 Design Thinking I |
| Select 3 credit points of any undergraduate subjects | | 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>CL3030:03 Reactor Design<br>**PREREQ:** CL2501 and MA2000<br>*Only offered in odd years* | **Major**<br>CH1002:03 Chemistry: Principles and Applications<br>**PREREQ:** CH1001 or CH1011 and allow concurrent for CH1011 and CH1001 |
| 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>CH2103:03 Analytical Chemistry<br>**PREREQ:** CH1001 or CH1011 |
| Select 3 credit points of subjects from List 2 | | **Major**<br>EG2008:03 Fluid Mechanics<br>**PREREQ:** EG1011 and MA2000 |

## 2030

| VAC WORK (Dec-Feb) | TRIMESTER 2 | TRIMESTER 3 |
|---|---|---|
| *Time available for work placements with engineering employers* | **Major**<br>CL2502:03 Chemical Engineering Thermodynamics<br>**PREREQ:** CL2501 and MA2000<br>*Only offered in even years* | CP2404:03 Database Modelling |
| **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>CL4537:03 Minerals and Solids Processing<br>**PREREQ:** Must have completed 48 credit points toward BEngineering<br>*Only offered in even years* | CP2406:03 Programming III<br>**PREREQ:** CP1404 or CP1804 or CP1300 |
| **BLOCK 2 (Mar-Apr)**<br>**Major**<br>CL3021:03 Mass Transfer Operations<br>**PREREQ:** CL2501 and MA2000 | Select 3 credit points of subjects from List 2 | **Major**<br>ME3512:03 Heat and Mass Transfer<br>**PREREQ:** MA2000 |

## 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>CL4040:03 Safety, Environment and Sustainability in the Process Industries<br>**PREREQ:** CL2501 | **Major**<br>CL4072:03 Chemical Engineering Design (Part 2 of 2)<br>**PREREQ:** CL4071 | **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>CL4071:03 Chemical Engineering Design (Part 1 of 2)<br>**PREREQ:** (CL2502 or CL3010) and CL3021 and CL3030 and (CS3008 or EG2008) and ME3512 | **Major**<br>CL4538:03 Bioprocess Engineering Systems<br>**PREREQ:** CL2501 and CL3021<br>*Only offered in odd years* | |

# Course handbook

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

| | |
|---|---|
| **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 |