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

2027 ENTRY

Mechanical 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 **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 **PREREQ:** PH1005
EG1002:03 Computing and Sensors	PH1005:03 Newtonian Physics **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 (or select 3 credit points of any undergraduate subjects if already satisfied via previous study)	**Major** 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	MA1003:03 Mathematical Techniques **PREREQ:** MA1000 OR MA1011 OR MA1009	CP1404:03 Programming II **PREREQ:** CP1801 or CP1401 or CP1200 or EG1002 or CP2200 or SC1201
Major CS2001:03 Engineering Strength of Materials **PREREQ:** EG1011	**Major** EG2010:03 Materials Science and Engineering	**Major** ME2525:03 Machine Element Design **PREREQ:** CS2001
Select 3 credit points of any undergraduate subjects		**Major** ME2521:03 Dynamics of Machine Elements **PREREQ:** EG1011

2029

TRIMESTER 1	TRIMESTER 2	TRIMESTER 3
MA2000:03 Mathematics for Scientists and Engineers **PREREQ:** MA1003	**Major** ME3511:03 Dynamics and Acoustics **PREREQ:** MA2000 and ME2521	CP1403:03 Design Thinking I
CP3407:03 Advanced Software Engineering **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** ME3525:03 Mechanical Design and Bulk Materials Handling **PREREQ:** ME2525	**Major** EG2008:03 Fluid Mechanics **PREREQ:** MA2000 and EG1011
BLOCK 2 (Mar-Apr)		
EG3000:03 Introduction to Systems Engineering and Project Management **PREREQ:** EG1000 and EG1002 and EG1010 and EG1011 and EG1012 and MA1000 and MA1003 and (PH1005 or EG1001) or 36 credit points		Select 3 credit points of subjects from **List 1**

2030

VAC WORK (Dec-Feb)	TRIMESTER 2	TRIMESTER 3
Time available for work placements with engineering employers	**Major** ME3515:03 Advanced Manufacturing Engineering **PREREQ:** ME2525 and EG2010	CP2404:03 Database Modelling
BLOCK 2 (Mar-Apr) **Major** ME4515:03 Advanced Mechanical Engineering Design **PREREQ:** ME3525	**Major** ME4522:03 Thermodynamics and Energy Conversion **PREREQ:** ME2512 or EG2008	CP2406:03 Programming III **PREREQ:** CP1404 or CP1804 or CP1300
BLOCK 2 (Mar-Apr) **Major** ME4513:03 Advanced Fluid Mechanics **PREREQ:** CS3008 or EG2008	Select 3 credit points of subjects from **List 2**	**Major** ME3512:03 Heat and Mass Transfer **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 **PREREQ:** 60 credit points	EG4012:03 Thesis Part 2 of 2 **PREREQ:** EG4011
BLOCK 2 (Mar-Apr) **Major** EG3001:03 Finite Element Analysis **PREREQ:** EG1002 and EG1011 and MA2000	**Major** EG4013:03 Asset Management, Maintenance and Reliability **PREREQ:** 24 credit points	**Major** EE3600:03 Automation and Control Systems **PREREQ:** (EG1012 and MA200) or admittance into Master of Engineering (Professional)
BLOCK 2 (Mar-Apr)	Select 3 credit points of subjects from **List 2**	Select 3 credit points of subjects from **List 2**

Course handbook

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

Course Notes

Mechanical Engineering Major (Cairns students)

Students studying on the Cairns campus will be required to attend the Townsville campus for residentials in the third and fourth year of their study.

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