

# Bachelor of Engineering (Honours) (Mechanical Engineering)

(MA1020 – Preparatory Mathematics required)

Useful study planning/enrolment resources:

- [Subject Search](#)
- [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](mailto: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 Block 1 and Block 2 subjects, and/or Trimester 1 subjects and full-time enrolment load in an academic year..

|      | TRIMESTER 1 | TRIMESTER 2 | TRIMESTER 3                                                                   |
|------|-------------|-------------|-------------------------------------------------------------------------------|
| 2025 |             |             | EG1010:03 Process Engineering                                                 |
|      |             |             | MA1020:03 Preparatory Mathematics<br><i>Cairns students must enrol online</i> |
|      |             |             |                                                                               |

| 2026 | TRIMESTER 1                                                                                                                                                                                        | TRIMESTER 2                                                                                                                                                                    | TRIMESTER 3                                          |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|
|      | EG1000:03 Engineering 1                                                                                                                                                                            | EG1011:03 Statics and Dynamics<br><i>PREREQ: Allow concurrent enrolment in PH1005</i>                                                                                          | EG1012:03 Electric Circuits                          |
|      | EG1002:03 Computing and Sensors                                                                                                                                                                    | MA1003:03 Mathematical Techniques<br><i>PREREQ: MA1000 or MA1011 or MA1009</i>                                                                                                 | Select 3 credit points of any undergraduate subjects |
|      | MA1000:03 Mathematical Foundations<br><i>PREREQ: MA1020 OR MA0020 OR BR0202 OR High school subjects: Mathematical Methods or Specialist Mathematics (or equivalent such as Maths B or Maths C)</i> | PH1005:03 Newtonian Physics<br><i>PREREQ: Maths B or MA1020 or MA0020 or MA1000 or MA1008 OR admission to 116209, 116409 or 116309. Allow concurrent for MA1000 and MA1008</i> |                                                      |

| 2027 | TRIMESTER 1                                                                          | TRIMESTER 2                                                              | TRIMESTER 3                                                                     |
|------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------|---------------------------------------------------------------------------------|
|      | MA2000:03 Mathematics for Scientists and Engineers<br><i>PREREQ: MA1003</i>          | <b>Major</b><br>CP1407:03 Introductory Machine Learning and Data Science | <b>Major</b><br>EG2008:03 Fluid Mechanics<br><i>PREREQ: MA2000 and EG1011</i>   |
|      | <b>Major</b><br>CS2001:03 Engineering Strength of Materials<br><i>PREREQ: EG1011</i> | <b>Major</b><br>EG2010:03 Materials Science and Engineering              | <b>Major</b><br>ME2521:03 Dynamics of Machine Elements<br><i>PREREQ: EG1011</i> |
|      | Select 3 credit points of any undergraduate subjects                                 | Select 3 credit points of any undergraduate subjects                     | <b>Major</b><br>ME2525:03 Machine Element Design<br><i>PREREQ: CS2001</i>       |

| 2028 | Vac work (Dec-Feb)                                                                                                                                                                                                     | TRIMESTER 2                                                                          | TRIMESTER 3                                                                       |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|      | <i>Time available for work placements with engineering employers</i>                                                                                                                                                   | EG4011:03 Thesis Part 1 of 2<br><i>PREREQ: 60 credit points</i>                      | EG4012:03 Thesis Part 2 of 2<br><i>PREREQ: EG4011</i>                             |
|      | BLOCK 2 (Mar-Apr)                                                                                                                                                                                                      |                                                                                      |                                                                                   |
|      | EG3000:03 Introduction to Systems Engineering and Project Management<br><i>PREREQ: EG1000 and EG1002 and EG1010 and EG1011 and EG1012 and MA1000 and MA1003 and (PH1005 or EG1001) or 36 credit points of subjects</i> | <b>Major</b><br>ME3511:03 Dynamics and Acoustics<br><i>PREREQ: MA2000 and ME2521</i> | <b>Major</b><br>EE3600:03 Automatic Control 1<br><i>PREREQ: EG1012 and MA2000</i> |
|      | BLOCK 2 (Mar-Apr)                                                                                                                                                                                                      |                                                                                      |                                                                                   |
|      | <b>Major</b><br>EG3001:03 Finite Element Analysis<br><i>PREREQ: EG1002 and EG1011 and MA2000</i>                                                                                                                       | <b>Major</b><br>ME3512:03 Heat and Mass Transfer<br><i>PREREQ: MA2000</i>            | <b>Major</b><br>ME3525:03 Mechanical Design<br><i>PREREQ: ME2525</i>              |

| 2029 | Vac work (Dec-Feb)                                                                        | TRIMESTER 2                                                                                                              | TRIMESTER 3 |
|------|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|-------------|
|      | <i>Time available for work placements with engineering employers</i>                      | <b>Major</b><br>ME3515:03 Advanced Manufacturing Engineering<br><i>PREREQ: ME2525 and EG2010</i>                         |             |
|      | BLOCK 2 (Mar-Apr)                                                                         |                                                                                                                          |             |
|      | <b>Major</b><br>ME4513:03 Advanced Fluid Mechanics<br><i>PREREQ: CS3008 OR EG2008</i>     | <b>Major</b><br>EG4013:03 Asset Management, Maintenance and Reliability<br><i>PREREQ: Completion of 24 credit points</i> |             |
|      | BLOCK 2 (Mar-Apr)                                                                         |                                                                                                                          |             |
|      | <b>Major</b><br>ME4515:03 Advanced Mechanical Engineering Design<br><i>PREREQ: ME3525</i> | <b>Major</b><br>ME4522:03 Energy, Conversion and Refrigeration<br><i>PREREQ: EG2008 or CS3008</i>                        |             |

## COURSE HANDBOOK

[Bachelor of Engineering \(Honours\) Handbook](#)  
[Mechanical Engineering Major](#)