

# Bachelor of Engineering (Honours) and Master of Engineering

## Mechanical Engineering

Undergraduate Program - Consists of 80 units

Suggested Study Plans from 2025 Commencement Onwards



THE UNIVERSITY  
OF QUEENSLAND  
AUSTRALIA

CREATE CHANGE

## Program and Course requirements

For the **Bachelor of Engineering (Honours) and Master of Engineering** full program and course requirements, [click here](#). Make sure to check your program's rules to ensure you are compliant with requirements.

## Prerequisite Courses

Students are expected to be aware if a course has prerequisites and must have successfully completed any required prerequisites before enrolling. A prerequisite course provides the foundational knowledge needed to progress to the next course and may be high school subjects or university-level study/courses.

Prerequisites are listed on the course profile and the course page on the [Programs and Courses website](#).

## Electives

Depending on your program, you may need to complete compulsory and elective courses.

Electives are courses you can choose, while compulsory courses are mandatory courses that you must study. You must successfully complete all the required units of elective and compulsory courses to meet the program requirements. Your program rules outline how many electives you can study and the types of electives you can choose from.

Search [Programs and Courses website](#) for your program to confirm program rules and elective options.

## Academic Advice

Academic advisors provide specialist help in course selection and can look at your individual study history to make personalised recommendations on your study plan.

If you need assistance with your program, you can [seek Academic Advice](#).

## Additional Information

Course profiles are underlined and hyperlinked to their relevant course page which can be accessed by clicking the underlined text.

# Bachelor of Engineering (Honours) and Master of Engineering

## Mechanical Engineering

Undergraduate Program - Consists of 80 units

Suggested Study Plan from Semester 1, 2025 Commencement Onwards

The following is a colour reference guide, including notes around course offerings and units:

|                   |                |                   |
|-------------------|----------------|-------------------|
| Core Courses      | Field of Study | Program Electives |
| General Electives |                |                   |



THE UNIVERSITY  
OF QUEENSLAND  
AUSTRALIA

CREATE CHANGE

|  |                                                                                   |
|--|-----------------------------------------------------------------------------------|
|  | Course offered in both Semester 1 & 2                                             |
|  | This course does not consist of 2 units                                           |
|  | Elective may be substituted for another Elective type as per Program requirements |

| YEAR 1        |                                                                                      |                                                                        |                                                                         |                                                                |
|---------------|--------------------------------------------------------------------------------------|------------------------------------------------------------------------|-------------------------------------------------------------------------|----------------------------------------------------------------|
| Sem 1<br>Feb  | <b>ENGG1100</b><br>Professional Engineering                                          | <b>MATH1051</b><br>Calculus and Linear Algebra I                       | <b>ENGG1300</b><br>Introduction to Electrical Systems                   | <b>ENGG1500</b><br>Thermodynamics: Energy and the Environment  |
| Sem 2<br>July | <b>ENGG1001</b><br>Programming for Engineers                                         | <b>MATH1052</b><br>Multivariate Calc & Ordinary Differential Equations | <b>ENGG1700</b><br>Statics and Materials                                | <b>GENERAL ELECTIVE</b><br>OR<br><b>PROGRAM ELECTIVE</b>       |
| YEAR 2        |                                                                                      |                                                                        |                                                                         |                                                                |
| Sem 1<br>Feb  | <b>MATH2001</b><br>Calculus & Linear Algebra II                                      | <b>MECH2300</b><br>Structures and Materials                            | <b>MECH2305</b><br>Introduction to Engineering Design and Manufacturing | <b>MECH2410</b><br>Fundamentals of Fluid Mechanics             |
| Sem 2<br>July | <b>MATH2010</b> <sup>1</sup><br><b>STAT2201</b> <sup>1</sup>                         | <b>MECH2100</b><br>Machine Element Design                              | <b>MECH2210</b><br>Intermediate Mechanical and Space Dynamics           | <b>MECH2700</b><br>Computational Engineering and Data Analysis |
| YEAR 3        |                                                                                      |                                                                        |                                                                         |                                                                |
| Sem 1<br>Feb  | <b>MECH3400</b><br>Thermodynamics and Heat Transfer                                  | <b>MECH3610</b><br>Systems Engineering Principles                      | <b>METR4201</b><br>Control Engineering 1                                | <b>GENERAL ELECTIVE</b><br>OR<br><b>PROGRAM ELECTIVE</b>       |
| Sem 2<br>July | <b>MECH3100</b><br>Mechanical Systems Design                                         | <b>MECH3200</b><br>Advanced Dynamics and Vibrations                    | <b>MECH3410</b><br>Fluid Mechanics                                      | <b>GENERAL ELECTIVE</b><br>OR<br><b>PROGRAM ELECTIVE</b>       |
| YEAR 4        |                                                                                      |                                                                        |                                                                         |                                                                |
| Sem 1<br>Feb  | <b>ENGG4901</b> <sup>2</sup><br>Professional Practice and the Business Environment A | <b>MECH3780</b><br>Computational Mechanics                             | <b>BE(Hons)/ME ELECTIVE</b>                                             | <b>BE(Hons)/ME MASTERS ELECTIVE</b>                            |
| Sem 2<br>July | <b>METR6203</b><br>Control Engineering 2                                             | <b>BE(Hons)/ME ELECTIVE</b>                                            | <b>BE(Hons)/ME MASTERS ELECTIVE</b>                                     | <b>BE(Hons)/ME MASTERS ELECTIVE</b>                            |
| YEAR 5        |                                                                                      |                                                                        |                                                                         |                                                                |
| Sem 1<br>Feb  | <b>ENGG7291</b><br>Engineering Placement A                                           |                                                                        |                                                                         | <b>8 units</b>                                                 |
| Sem 2<br>July | <b>BE(Hons)/ME ELECTIVE</b>                                                          | <b>BE(Hons)/ME ELECTIVE</b>                                            | <b>BE(Hons)/ME MASTERS ELECTIVE</b>                                     | <b>BE(Hons)/ME MASTERS ELECTIVE</b>                            |

### NOTES

<sup>1</sup> MATH2010: Analysis of Ordinary Differential Equations; STAT2201: Analysis of Engineering & Scientific Data

<sup>2</sup> Offered in Semester 2 under the course code ENGG4902, Professional Practice and the Business Environment B

Students must follow the [program rules and requirements](#) listed on the my.UQ website. Future course offerings are subject to change. [Seek academic advice](#) if you are undertaking a dual degree, have any questions or if you fail any courses.

# Bachelor of Engineering (Honours) and Master of Engineering

## Mechanical Engineering

Undergraduate Program - Consists of 80 units

Suggested Study Plan from **Semester 2, 2025** Commencement Onwards

The following is a colour reference guide, including notes around course offerings and units:

|                   |                |                   |
|-------------------|----------------|-------------------|
| Core Courses      | Field of Study | Program Electives |
| General Electives |                |                   |



THE UNIVERSITY  
OF QUEENSLAND  
AUSTRALIA

CREATE CHANGE

|  |                                                                                   |
|--|-----------------------------------------------------------------------------------|
|  | Course offered in both Semester 1 & 2                                             |
|  | This course does not consist of 2 units                                           |
|  | Elective may be substituted for another Elective type as per Program requirements |

| YEAR 1        |                                                                                      |                                                                        |                                                                         |                                                               |
|---------------|--------------------------------------------------------------------------------------|------------------------------------------------------------------------|-------------------------------------------------------------------------|---------------------------------------------------------------|
| Sem 2<br>July | <b>ENGG1100</b><br>Professional Engineering                                          | <b>MATH1051</b><br>Calculus and Linear Algebra I                       | <b>ENGG1300</b><br>Introduction to Electrical Systems                   | <b>ENGG1500</b><br>Thermodynamics: Energy and the Environment |
| Sem 1<br>Feb  | <b>ENGG1001</b><br>Programming for Engineers                                         | <b>MATH1052</b><br>Multivariate Calc & Ordinary Differential Equations | <b>ENGG1700</b><br>Statics and Materials                                | <b>GENERAL ELECTIVE</b><br>OR<br><b>PROGRAM ELECTIVE</b>      |
| YEAR 2        |                                                                                      |                                                                        |                                                                         |                                                               |
| Sem 2<br>July | <b>MATH2001</b><br>Calculus & Linear Algebra II                                      | <b>MECH2210</b><br>Intermediate Mechanical and Space Dynamics          | <b>MECH2700</b><br>Computational Engineering and Data Analysis          | <b>GENERAL ELECTIVE</b><br>OR<br><b>PROGRAM ELECTIVE</b>      |
| Sem 1<br>Feb  | <b>MATH2010</b> <sup>1</sup><br><b>STAT2201</b> <sup>1</sup>                         | <b>MECH2300</b><br>Structures and Materials                            | <b>MECH2305</b><br>Introduction to Engineering Design and Manufacturing | <b>MECH2410</b><br>Fundamentals of Fluid Mechanics            |
| YEAR 3        |                                                                                      |                                                                        |                                                                         |                                                               |
| Sem 2<br>July | <b>MECH2100</b><br>Machine Element Design                                            | <b>MECH3200</b><br>Advanced Dynamics and Vibrations                    | <b>MECH3410</b><br>Fluid Mechanics                                      | <b>BE(Hons)/ME ELECTIVE</b>                                   |
| Sem 1<br>Feb  | <b>MECH3400</b><br>Thermodynamics and Heat Transfer                                  | <b>MECH3610</b><br>Systems Engineering Principles                      | <b>METR4201</b><br>Control Engineering 1                                | <b>GENERAL ELECTIVE</b><br>OR<br><b>PROGRAM ELECTIVE</b>      |
| YEAR 4        |                                                                                      |                                                                        |                                                                         |                                                               |
| Sem 2<br>July | <b>MECH3100</b><br>Mechanical Systems Design                                         | <b>METR6203</b><br>Control Engineering 2                               | <b>BE(Hons)/ME MASTERS ELECTIVE</b>                                     | <b>BE(Hons)/ME MASTERS ELECTIVE</b>                           |
| Sem 1<br>Feb  | <b>ENGG7291</b><br>Engineering Placement A                                           |                                                                        |                                                                         |                                                               |
| YEAR 5        |                                                                                      |                                                                        |                                                                         |                                                               |
| Sem 2<br>July | <b>BE(Hons)/ME ELECTIVE</b>                                                          | <b>BE(Hons)/ME ELECTIVE</b>                                            | <b>BE(Hons)/ME MASTERS ELECTIVE</b>                                     | <b>BE(Hons)/ME MASTERS ELECTIVE</b>                           |
| Sem 1<br>Feb  | <b>ENGG4901</b> <sup>2</sup><br>Professional Practice and the Business Environment A | <b>MECH3780</b><br>Computational Mechanics                             | <b>BE(Hons)/ME ELECTIVE</b>                                             | <b>BE(Hons)/ME MASTERS ELECTIVE</b>                           |

## NOTES

<sup>1</sup> MATH2010: Analysis of Ordinary Differential Equations; STAT2201: Analysis of Engineering & Scientific Data

<sup>2</sup> Offered in Semester 2 under the course code **ENGG4902**, Professional Practice and the Business Environment B

Students must follow the [program rules and requirements](#) listed on the my.UQ website. Future course offerings are subject to change. [Seek academic advice](#) if you are undertaking a dual degree, have any questions or if you fail any courses.