2024 Commencement Mechanical Engineering Specialisation with a Major in Materials Engineering Bachelor of Engineering (Honours)
**Recommended Study Plan**

This study plan is a **guide only** for students commencing the Bachelor of Engineering (Hons) in Mechanical Engineering with a Materials Engineering major in 2024. Please note that all course selections must adhere to the course list outlined at UQ Courses and Programs. If you have any questions or concerns regarding your course selections, please speak with an **Academic Advisor**.

<table>
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<tr>
<th>Compulsory Core #8</th>
<th>Compulsory Specialisation #36</th>
<th>Preparatory courses or First Year or General Elective #0-#4</th>
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<td>#4 Materials Courses for Mechanical Engineers</td>
<td>#8 Materials Engineering Compulsory courses</td>
<td>#4 Materials Engineering Elective Courses</td>
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**February Commencement**

**SEMESTER** | **YEAR 1**
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Sem 1 Feb | ENGG1100 Professional Engineering  
MATH1051 Calculus & Linear Algebra I (or) MATH1071 Advanced Calculus & Linear Algebra I  
ENGG1001 Programming for Engineers (or) CSSE1001 Introduction to Software Engineering  
ENGG1700 Statics and Materials
Sem 2 July | ENGG1500 Thermodynamics: Energy & the Environment  
MATH1052 Multivariate Calculus & ODEs (or) MATH1072 Advanced Multivariate Calculus & Ordinary  
ENGG1300 Introduction to Electrical Systems  
Preparatory Course or First Year or General Elective

**SEMESTER** | **YEAR 2**
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Sem 1 Feb | MECH2305 Intro to Engineering Design & Manufacturing  
MATH2001 Calculus & Linear Algebra II  
MECH2300 Structures & Materials  
MECH2410 Fundamentals of Fluid Mechanics
Sem 2 July | MECH2100 Machine Element Design  
MECH2210 Intermediate Mechanical & Space Dynamics  
MECH2700 Computational Engineering & Data Analysis  
Preparatory Course or First Year or General Elective

**SEMESTER** | **YEAR 3**
--- | ---
Sem 1 Feb | MECH3610 Systems Engineering Principles  
MATH2010 Analysis of ODEs  
STAT2201 Analysis of Eng. & Scientific Data  
MECH3400 Thermodynamics & Heat Transfer  
MECH3780 Computational Mechanics
Sem 2 July | MECH3100 Systems Engineering Practice  
MECH3200 Advanced Dynamics & Vibrations  
MECH2310 – Science & Engineering of Metals  
MECH3301 – Materials Selection

**SEMESTER** | **YEAR 4**
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Sem 1 Feb | ENGG4600 Engineering Thesis (or) ENGG4552 Major Design Project  
METR4201 Control Engineering 1  
CHEE3301 – Polymer Engineering  
Materials Engineering Elective Course
Sem 2 July | ENGG4902 Professional Practice & the Business Environment  
MATE4302 – Electrochemistry & Corrosion  
Materials Engineering Elective Course
### Semester 1, Year 1
- **Sem 1, Feb**
  - **MECH2305** Intro to Engineering Design & Manufacturing
  - **MATH2010** Analysis of ODEs
  - **STAT2201** Analysis of Eng. & Scientific Data
- **Sem 2, July**
  - **MECH2210** Intermediate Mechanical & Space Dynamics
  - **MATH2001** Calculus & Linear Algebra II
  - **MECH2200** Computational Engineering & Data Analysis

### Semester 2, Year 1
- **Sem 1, Feb**
  - **MECH2310** Systems Engineering Principles
  - **METR4201** Control Engineering 1
  - **MECH3400** Thermodynamics & Heat Transfer
- **Sem 2, July**
  - **MECH2100** Machine Element Design
  - **MECH3200** Advanced Dynamics & Vibrations
  - **MECH2310** – Science & Engineering of Metals

### Semester 1, Year 2
- **Sem 2, July**
  - **MECH3610** Systems Engineering Principles
  - **METR4201** Control Engineering 1
  - **MECH3780** Computational Mechanics
- **Sem 1, Feb**
  - **MECH3200** Advanced Dynamics & Vibrations
  - **MECH3400** Thermodynamics & Heat Transfer
  - **MECH3301** – Materials Selection

### Semester 2, Year 2
- **Sem 1, Feb**
  - **ENGG4901** Professional Practice & the Business Environment
  - **CHEE3301** – Polymer Engineering
- **Sem 2, July**
  - **ENGG4601** Engineering Thesis
  - **ENGG4901** Professional Practice & the Business Environment
  - **MATE4302** – Electrochemistry & Corrosion

*Refer to course list for details on how to combine electives.*

Bachelor of Engineering (Honours) - my.UQ - The University of Queensland, Australia