# MECHANICAL & MATERIALS ENGINEERING

## Integrated Masters Program 2014

<table>
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<th>SEM</th>
<th>MECHANICAL &amp; MATERIALS ENGINEERING INTEGRATED MASTERS PROGRAM 2014</th>
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| 1   | **ENGG1100** Engineering Design  
**MATH1051** Calculus & Linear Algebra I  
or **MATH1050** (to make up for Maths C)  
**ENGG1400** Engineering Mechanics: Statics and Dynamics  
**ENGG1300** Introduction to Electrical Systems  
or **MATH1051** (to make up for Sem 1)  
**ENGG1500** Engineering Thermodynamics  |
| 2   | **ENGG1200** Engineering Modelling & Problem Solving  
**MATH1052** Multivariate Calculus & ODEs  
**ENGG1300** Introduction to Electrical Systems  
or **MATH1051** (to make up for Sem 1)  
**ENGG1500** Engineering Thermodynamics  |
| 3   | **MECH2305** Introduction to Engineering Design and Manufacturing  
**MATH2000** Calculus & Linear Algebra II  
**MECH2300** Structures and Materials  
**MECH2410** Fundamentals of Fluid Dynamics  |
| 4   | **MECH2100** Machine Element Design  
**MECH3305** Science & Engineering of Metals  
**MECH2210** Intermediate Mechanical & Space Dynamics  
or **ENGG1300** (to make up for Sem 2)  |
| 5   | **MECH3600** Engineering Management & Communication  
**MECH3300** Finite Element Method & Fracture Mechanics  
**MECH3400** Thermodynamics & Heat Transfer  
**STAT2201** Analysis of Eng & Sci Data  
**MATH2010** Analysis of ODEs  |
| 6   | **AERO3100** Aero Design & Manufacturing  
**MECH4301** Materials Selection  
**MECH3200** Advanced Dynamics & Vibrations  
**MECH3410** Fluid Mechanics  |
| 7   | **MECH4304** Net Shape Manufacturing  
**CHEE3301** Polymer Engineering  
**METR4201** Introduction to Control Systems  
**Elective**  |
| 8   | **ENGG7280** Engineering Project 8A  |
| 9   | **ENGG7600** Advanced Engineering Practice  
**ENGG7602** Advanced Engineering Laboratory Techniques  
**MATE7013** Advanced Manufacturing  
**MATE7001** Environmental Performance of Materials  |
| 10  | **ENGG7701** Grand Challenges  
**AERO4300** Aerospace Composites  
**CHEE4301** Nanomaterials & their Characterisation  
**CHEE4305** Biomaterials: Materials in Medicine  |

**Important:** This study plan is a guide only for students commencing the Bachelor of Engineering and Master of Engineering (Mechanical and Materials Engineering Dual Major) program in 2014. Please note that all course selections must adhere to the Bachelor of Engineering and Master of Engineering (Mechanical and Materials Engineering Dual Major) course list outlined at UQ Courses and Programs. If you have any questions or concerns regarding your course selections, please speak with your Academic Advisor in the School of Mechanical and Mining Engineering. This is particularly important for first year courses where the semesters in which some courses can be taken depend on your studies prior to entering the BE/ME program.

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