

Bachelor of Materials Science and Engineering (Honours) 3131 - T1 2026 START

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Program: Mat Sci and Eng Hons [3131]

Year 1 Term 1

Course or Activity	Prerequisites	Credits
CHEM1811 Engineering Chemistry 1A		6
MATH1131 Mathematics 1A		6
PHYS1121 Physics 1A		6

Year 1 Term 2

Course or Activity	Prerequisites	Credits
CHEM1821 Engineering Chemistry 1B	CHEM1811	6
ENGG1811 Computing for Engineers		6
MATH1231 Mathematics 1B	MATH1131	6

Year 1 Term 3

Course or Activity	Prerequisites	Credits
DESN1000 Introduction to Engineering Design and Innovation		6
MATS1192 Introduction to Materials Science and Engineering		6

Year 2 Term 1

Course or Activity	Prerequisites	Credits
MATH2019 Engineering Mathematics 2E	MATH1231	6
MATS2001 Physical Properties of Materials	PHYS1121, MATH1231, MATH1131, CHEM1811	6
MATS2003 Materials Characterisation		6

Year 2 Term 2

Course or Activity	Prerequisites	Credits
MATS2004 Mechanical Behaviour of Materials	MATS1192	6
MATS2008 Thermodynamics and Phase Equilibria	CHEM1811	6
MATS2009 Transport Processes in Materials Engineering	MATH1231	6

Year 2 Term 3

Course or Activity	Prerequisites	Credits
MATH2089 Numerical Methods and Statistics	MATH1231	6

<i>Disciplinary Component</i>		6
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Year 3 Term 1

Course or Activity	Prerequisites	Credits
MATS3001 Micromechanisms of Mechanical Behaviour of Metals	MATS2003, MATS2004	6
MATS3002 Fundamentals of Ceramic Processing	MATS2008, MATS2003	6
MATS3005 Phase Transformations	MATS2008, MATS2003	6

Year 3 Term 2

Course or Activity	Prerequisites	Credits
MATS3004 Polymer Science and Engineering 1		6
MATS3006 Design and Application of Materials in Science and Engineering 3		6
MATS3007 Materials Industry Management		6

Year 3 Term 3

Course or Activity	Prerequisites	Credits
MATS3008 Design and Engineering of Composites and Coatings		6
<i>Disciplinary Component</i>		6
<i>General Education</i>		6

Year 4 Term 1

Course or Activity	Prerequisites	Credits
MATS4014 Sustainable Materials Selection and Design		6
MATS4025 Honours Project A		4
<i>Level 4 Discipline Elective Courses</i>		6

Year 4 Term 2

Course or Activity	Prerequisites	Credits
MATS4015 Data Management and Communication for Materials Engineers		6
MATS4026 Honours Project B		4
<i>General Education</i>		6

Year 4 Term 3

Course or Activity	Prerequisites	Credits
MATS4027 Honours Project C		4
<i>Industrial Training</i>		0
<i>Level 4 Discipline Elective Courses</i>		6

*Lock: Students are required to take these courses within the specified semester