Science

Bachelor of Materials Science and Engineering (3131) - Handbook

2022 Commencing Students
Program Structure

Single Degree Mode

PROGRAM STRUCTURE			
	An approved Major	180 UOC	192 UOC
	Material Science Core		
	General Education	12 UOC (2 courses)	

General Education must be taken from courses that are not considered Science Electives or courses taught by the Faculty of Engineering.

Material Science students cannot take GENS or GENE courses under any circumstance.

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Science

Bachelor of Materials Science and Engineering (3131)

2022 Commencing Students

Click on the page number below to navigate to the approved Major sequence

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Functional Materials	4
Materials Engineering	5
Physical Metallurgy	6
Process Metallurgy	7

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Science

Bachelor of Materials Science and Engineering (3131)

2022 Commencing Students – Single Degree – Major in Ceramic Engineering (MATSJ1)

Choose from available proposed courses in each year

Year 1		
CHEM1811 (T1)	DESN1000 (T1, T3)	MATS1192 (T1, T3)
PHYS1121 (T1, T2, T3) OR PHYS1131 (T1, T2, T3)	MATH1231 (T1, T2, T3) OR MATH1241 (T1, T2)	6 UOC First Year Engineering Elective (See Note 1)
MATH1131 (T1, T2, T3) OR MATH1141 (T1, T3)	COMP1911 (T1, T2, T3) OR ENGG1811 (T2)	

Year 2		
MATS2001 (T1)	MATS2004 (T2)	MATS2006 (T3)
MATS2003 (T1)	MATS2005 (T2)	MATS2007 (T3)
MATH2019 (T1)	MATS2008 (T2)	

Year 3		
MATS3001 (T1)	MATS3004 (T2)	6 UOC Professional Elective (See Note 2)
MATS3002 (T1)	MATS3006 (T2)	6 UOC General Education
MATH2089 (T1, T2)	MATS3007 (T2)	

Year 4		
MATS4100 (T1)	MATS4100 (T2)	MATS4100 (T3)
MATS4002 (T1)	MATS4004 (T2)	6 UOC Professional Elective (See Note 2)
6 UOC Professional Elective (See Note 2)	6 UOC General Education	ENGG4999 (See Note 3)

NOTES

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See Program Structure on page 1 for a guide on the terminology and colour codes used in this progression plan.

Note 1: First Year Engineering Elective: Click HERE to access the full list of first year engineering electives.
Note 2: Professional Electives: MATS3003 (T1), MATS3005 (T1), MATS4001 (T2), MATS4003, MATS4005 (T3), MATS4006 (T3), MATS4007 (T3)
Note 3: Students must also complete 60 days of approved industrial training throughout their degree. Click HERE for more info.

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Science

Bachelor of Materials Science and Engineering (3131)

2022 Commencing Students – Single Degree – Major in Functional Materials (MATSF1)

Choose from available proposed courses in each year

Year 1		
CHEM1811 (T1)	DESN1000 (T1, T3)	MATS1192 (T1, T3)
PHYS1121 (T1, T2, T3) OR PHYS1131 (T1, T2, T3)	MATH1231 (T1, T2, T3) OR MATH1241 (T1, T2)	6 UOC First Year Engineering Elective (See Note 1)
MATH1131 (T1, T2, T3) OR MATH1141 (T1, T3)	COMP1911 (T1, T2, T3) OR ENGG1811 (T2)	

Year 2		
MATS2001 (T1)	MATS2004 (T2)	MATS2006 (T3)
MATS2003 (T1)	MATS2005 (T2)	MATS2007 (T3)
MATH2019 (T1)	MATS2008 (T2)	

Year 3		
MATS3001 (T1)	MATS3004 (T2)	6 UOC Professional Elective (See Note 2)
MATS3002 (T1)	MATS3006 (T2)	6 UOC General Education
MATH2089 (T1, T2)	MATS3007 (T2)	

Year 4		
MATS4100 (T1)	MATS4100 (T2)	MATS4100 (T3)
MATS3005 (T1)	6 UOC Professional Elective (See Note 2)	MATS4005 (T3)
6 UOC Professional Elective (See Note 2)	6 UOC General Education	ENGG4999 (See Note 3)

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Note 1: First Year Engineering Elective: Click HERE to access the full list of first year engineering electives.
Note 2: Professional Electives: MATS3003 (T1), MATS4001 (T2), MATS4002 (T1), MATS4003, MATS4004 (T2), MATS4006 (T3), MATS4007 (T3)
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Science

Bachelor of Materials Science and Engineering (3131)

2022 Commencing Students – Single Degree – Major in Materials Engineering (MATSH1)
Choose from available proposed courses in each year

Year 1		
CHEM1811 (T1)	DESN1000 (T1, T3)	MATS1192 (T1, T3)
PHYS1121 (T1, T2, T3) OR PHYS1131 (T1, T2, T3)	MATH1231 (T1, T2, T3) OR MATH1241 (T1, T2)	6 UOC First Year Engineering Elective (See Note 1)
MATH1131 (T1, T2, T3) OR MATH1141 (T1, T3)	COMP1911 (T1, T2, T3) OR ENGG1811 (T2)	

Year 2		
MATS2001 (T1)	MATS2004 (T2)	MATS2006 (T3)
MATS2003 (T1)	MATS2005 (T2)	MATS2007 (T3)
MATH2019 (T1)	MATS2008 (T2)	

Year 3		
MATS3001 (T1)	MATS3004 (T2)	6 UOC Professional Elective (See Note 2)
MATS3002 (T1)	MATS3006 (T2)	6 UOC General Education
MATH2089 (T1, T2)	MATS3007 (T2)	

Year 4		
MATS4100 (T1)	MATS4100 (T2)	MATS4100 (T3)
6 UOC Professional Elective (See Note 2)	6 UOC Professional Elective (See Note 2)	6 UOC Professional Elective (See Note 2)
6 UOC Professional Elective (See Note 2)	6 UOC General Education	ENGG4999 (See Note 3)

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Note 2: Professional Electives: MATS3003 (T1), MATS3005 (T1), MATS4001 (T2), MATS4002 (T1), MATS4003, MATS4004 (T2), MATS4005 (T3), MATS4006 (T3), MATS4007 (T3)
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Science

Bachelor of Materials Science and Engineering (3131)

2022 Commencing Students – Single Degree – Major in Physical Metallurgy (MATSE1)

Choose from available proposed courses in each year

Year 1		
CHEM1811 (T1)	DESN1000 (T1, T3)	MATS1192 (T1, T3)
PHYS1121 (T1, T2, T3) OR PHYS1131 (T1, T2, T3)	MATH1231 (T1, T2, T3) OR MATH1241 (T1, T2)	6 UOC First Year Engineering Elective (See Note 1)
MATH1131 (T1, T2, T3) OR MATH1141 (T1, T3)	COMP1911 (T1, T2, T3) OR ENGG1811 (T2)	

Year 2		
MATS2001 (T1)	MATS2004 (T2)	MATS2006 (T3)
MATS2003 (T1)	MATS2005 (T2)	MATS2007 (T3)
MATH2019 (T1)	MATS2008 (T2)	

Year 3		
MATS3001 (T1)	MATS3004 (T2)	6 UOC Professional Elective (See Note 2)
MATS3002 (T1)	MATS3006 (T2)	6 UOC General Education
MATH2089 (T1, T2)	MATS3007 (T2)	

Year 4		
MATS4100 (T1)	MATS4100 (T2)	MATS4100 (T3)
MATS3005 (T1)	MATS4001 (T2)	6 UOC Professional Elective (See Note 2)
6 UOC Professional Elective (See Note 2)	6 UOC General Education	ENGG4999 (See Note 3)

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Science

Bachelor of Materials Science and Engineering (3131)

2022 Commencing Students – Single Degree – Major in Process Metallurgy (MATSG1)

Choose from available proposed courses in each year

Year 1		
CHEM1811 (T1)	DESN1000 (T1, T3)	MATS1192 (T1, T3)
PHYS1121 (T1, T2, T3) OR PHYS1131 (T1, T2, T3)	MATH1231 (T1, T2, T3) OR MATH1241 (T1, T2)	6 UOC First Year Engineering Elective (See Note 1)
MATH1131 (T1, T2, T3) OR MATH1141 (T1, T3)	COMP1911 (T1, T2, T3) OR ENGG1811 (T2)	

Year 2		
MATS2001 (T1)	MATS2004 (T2)	MATS2006 (T3)
MATS2003 (T1)	MATS2005 (T2)	MATS2007 (T3)
MATH2019 (T1)	MATS2008 (T2)	

Year 3		
MATS3001 (T1)	MATS3004 (T2)	6 UOC Professional Elective (See Note 2)
MATS3002 (T1)	MATS3006 (T2)	6 UOC General Education
MATH2089 (T1, T2)	MATS3007 (T2)	

Year 4		
MATS4100 (T1)	MATS4100 (T2)	MATS4100 (T3)
MATS3003 (T1)	MATS4003	6 UOC Professional Elective (See Note 2)
6 UOC Professional Elective (See Note 2)	6 UOC General Education	ENGG4999 (See Note 3)

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