

Sample Study Outline

Materials Science and Engineering (Honours)

Program / Degree: PROGRAM 3131 BE(Honours) in Materials Science and Engineering

Year	Term 1	UOC	Term 2	UOC	Term 3	UOC
1 st	MATS1192 Design & Application of Materials	6	CHEM1811 Engineering Chemistry	6	ENGG1000 Engineering Design First Year Engineering Elective	6
	ENGG1811 Computing for Engineers	6	MATH1231 Mathematics 1B OR MATH1241 Higher Mathematics 1B	6		6
	MATH1131 Mathematics 1A OR MATH1141 Higher Mathematics 1A	6	PHYS1121 Physics 1A OR PHYS1131 Higher Physics 1A	6		6
	Total UOC	18	Total UOC	18	Total UOC	12
2 nd	MATS2001 Physical Prop of Materials	6	MATS2004 Mechanical Behaviour of Mats	6	ENGG4901 Co-op Industry Training 1	12
	MATS2003 Materials Characterisation	6	MATS2005 Intro Fluid Flow & Heat Trans	6		
	MATH2019 Engineering Mathematics 2E	6	MATS2008 Thermodynamics & Phase Equilib	6		
	Total UOC	18	Total UOC	18	Total UOC (nominal)	12
3 rd	MATS3001 Mechanical Behaviour of Metals	6	MATS3004 Polymer Sci & Engineering 1 MATS3006 Des App of Mats in Sci & Eng 3 MATS3007 Materials Industry Management	6 6 6	MATS2006 Diffusion and Kinetics MATS2007 Sustainable Mats Processing Professional Elective	6 6 6
	MATS3002 Fundamentals of Ceramic Processing	6				
MATH2089 Numerical Methods & Statistics	6					
	Total UOC	18	Total UOC	18	Total UOC	18
4 th	ENGG4902 Co-op Industry Training 2A	12	ENGG4902 Co-op Industry Training 2B ENGG4902 Co-op Industry Training 3A	6 6	ENGG4902 Co-op Industry Training 3B	12
	Total UOC (nominal)	12	Total UOC (nominal)	12	Total UOC (nominal)	12
5 th	MATS4100 Materials Engineering Project	6	MATS4100 Materials Engineering Project	6	MATS4100 Materials Engineering Project	6
	Professional Elective A*	6	Professional Elective B*	6	Professional Elective	6
	Professional Elective	6	General Education	6	General Education	6
	Total UOC	18	Total UOC	18	Total UOC	18

- *For **MATSE1** (Physical Metallurgy): **A** = MATS3005 Phase Transformations **B** = MATS4001 Secondary Processing of Metals
- *For **MATSF1** (Functional Materials): **A** = MATS3005 Phase Transformations **B** = Composites and Functional Materials
- *For **MATSG1** (Process Metallurgy): **A** = MATS3003 Eng in Process Metallurgy **B** = MATS4003 Process Metallurgy Advanced
- *For **MATSH1** (Materials Engineering): **A** = Any Prof. Elective **B** = Any Prof. Elective
- *For **MATSJ1** (Ceramic Engineering): **A** = MATS4002 Design & Advanced Ceramics **B** = MATS4004 Fracture Mechanics & Failure

Notes:

- This is a SAMPLE study outline only and can be subject to change.
- You must always take your Industry Training schedule into consideration when planning your course enrolment or other commitments (see diagram below).

Resources For Electives: <http://www.materials.unsw.edu.au/current-students/electives-and-majors>

- UNSW Handbook <https://www.handbook.unsw.edu.au/undergraduate/programs/2021/3131>
- School: <http://www.materials.unsw.edu.au/>
- Co-op: <http://www.coop.unsw.edu.au/programs/materials-science-and-engineering-msa>

Co-op Academic Coordinator

For enrolment related questions please always contact your Co-op Academic Coordinator in the first instance:

Dr Owen Standard
 02 9385 4437
 o.standard@unsw.edu.au

When would I be on Industry Training (IT)?

