

Master of Engineering (Materials)

Mapping to Course Learning Outcomes

Listed below is the award's Program of Study and significant sequences/alternatives. Electives, including 4th year electives, are generally not listed as students cannot be guaranteed to take specific topics. The "Worst Case" row indicates the pathological worst case in terms of sequences and electives.

		COURSE LEARNING OUTCOMES											
BLOOM'S REVISED TAXONOMY R = Remembering (Knowledge) U = Understanding (Comprehension) A = Applying N = Analysing E = Evaluating C = Creating (Synthesis)		A. competently use professional skills and knowledge in the systematic development of complex materials engineering systems	B. demonstrate a deeper understanding of some areas of materials engineering	C. apply their skills and knowledge in a professionally responsible manner	D. communicate effectively with other engineers and the wider global community using a wide range of communication technologies	E. work professionally as an individual and in a team	F. understand and describe the processes through which current knowledge was developed	G. develop engineering solutions appropriate to the social, political, international, economic and environmental contexts in which they are applied	H. engage in the process of continuing learning needed to retain the necessary level of professional skills and knowledge in the area of materials engineering	I. demonstrate knowledge of the research process, and be able to conduct research in engineering	K. contribute successfully to project management	K. plan and execute a research project, applying relevant methodologies and knowledge	L. apply skills adopted through the thesis and advanced discipline topics to postgraduate level research or advanced industrial investigation.
Year													
Masters													
CHEM8801 Chemical Reactivity GE (4.5 units)	Core	RUN	RUN		RUA			RUA		RUA			RUA
ENGR7921 Materials Selection in Design (4.5 units)	Core	RUN	RUN					RUA		RUA		RUA	RUA
ENGR8791 Mechanics and Structures GE (4.5 units)	Core	RUAN	RUAN										
ENGR8822 Engineering Materials 2 GE (4.5 units)	Core	RU	RU				RU						
ENGR9704 Engineering Management (4.5 units)	Core			RUA	RUAC	RUA	RUA		RUAN	RUANC	RU	RU	RUA
ENGR9742 Systems Engineering (4.5 units)	Core			RUAN	RUAN	RUA	RUANE	RUAN	RUA	RUAN	RUN	RUAN	RUN
ENGR7702 Biomaterials (4.5 units)	Core	RUA	RUA				RU						
ENGR7891 Fatigue and Fracture Analysis (4.5 units)	Core	RUAN	RUA										
ENGR9811 Solid Mechanics GE (4.5 units)	Core	RUANE	RUANE				RUNE	RUA		RUNE			RUANE
ENGR9700 Masters Thesis (18 units)	Thesis	RUAN	RUN	RUNE	RUAC	RUAC	RUNE	RUNE	RUAC	RUANEC	RUAC	RUANEC	RUNE
ENGR9710 Masters Project (9 units)	Project	RUAN	RUN	RUN	RUAC	RUAC	RUAC	RUN	RUAC	RUANC	RUN	RUN	RUAC
ENGR3750 Workplace Preparation (0 units)	WorkExp			RU	RU	RUA			RUA	RU			
ENGR9405 Engineering Work Experience (4.5 units)	WorkExp			RUANC		RUAN	RUNE	RUAC		RUN	RUN	RUANC	
Count of Topics for which PE satisfied													
	Core	7	7	2	3	2	5	4	2	5	3	3	5
	Thesis	1	1	1	1	1	1	1	1	1	1	1	1
	Project	1	1	1	1	1	1	1	1	1	1	1	1
	WorkExp	0	0	2	1	2	1	1	1	2	1	1	0
Worst Case Coverage		8 RUAN	8 RUAN	5 RUAN	5 RUANC	5 RUA	7 RUANE	6 RUAN	4 RUAN	8 RUANC	5 RUAN	5 RUAN	6 RUAN