材料科學與工程學系

Department of Materials Science and Engineering

107 學年度(Academic Year 2018)

課程名稱	課程名稱 學分 第一學-					第三學年		第四學年		備註
Course Name		Grade 1						Grade 4		
		1st	2nd	1st	2nd	1st	2nd	1st	2nd	
· 上學		2	2							
General Chemistry	6	3	3							
化學實驗	2	1	1							
General Chemistry Lab.	2	1	1							
物理	8	4	4							
General Physics	0	4	4							
物理實驗	2	1	1							
General Physics Lab.	2	1	1							
殼積分	8	4	4							
Calculus	0	4	4							
材料科學與工程導論										
ntroduction to Materials Science and	6	3	3							
Engineering										
材料熱力學	6			3	3					
Thermodynamics of Materials	0			3	י					
工程數學	6			3	3					
Engineering Mathematics	0			3	3					
物理冶金	6			3	3					
Physical Metallurgy	0			3	3					
計算機概論	3			3						
ntroduction to Computer	3			3						
材料基礎實驗(一)(二)	4			2	2					
Elementary Materials Labs.	4			2	2					
晶體結構與繞射導論										
ntroduction to Crystallography and	3				3					
Diffraction										
材料工程實驗(一)(二)	4					2	2			
Advanced Materials Labs.	7									
服務學習(一)	0		0							
Campus Service	U		U							
服務學習(二)	0			0						*0
Campus Service	U			U						不り
生涯規劃及導師時間	2	1	1							
Career Planning and Mentor's Hours	<u> </u>	1	1							
導師課程	0	0	0	0	0					
合計	66	16	18	14	14	2	2	0	0	

本系最低畢業學分數為 130 學分

本系學生(含提前畢業、轉系生、雙主修、輔系)畢業相關規定依本系學士學位修讀辦法辦理 The minimum number of credits for graduation: 130

The graduation of the students of the Department (including early graduation students, transfer students, double major degree students or minor degree students) is handled in accordance with this Academic Regulations for Undergraduate Students of the Department.

^{*}需在畢業前修畢。It is required to complete the coursework before graduation.

材料科學與工程學系學程規畫 107.3.27

Department of Materials Science and Engineering Program Plan (Mar. 27, 2018)

		ats Science and Engineering Program Flam (Wat. 27, 2018)				
專業選修		材料機械性質 Mechanical Behaviours of Materials、				
(至少9學分) Major Salaatiya		材料動力學概論 Rate Processes in Materials、				
Major Selective (at least 9 credits)		物理化學 Physical Chemistry、				
(at least 9 cledits)		材料微觀結構分析 Microstructural Characterization of Materials				
		材料力學 Mechanics of Materials				
材料選修	-					
(至少9學分)		金屬材料 Metal Materials、陶瓷材料 Ceramics Materials、				
Selective Materials Science		電子材料 Electronic Materials、				
Course		高分子材料科學 Polymer Materials Science				
(at least 9 credits)						
	一般選修 (至少6學分) General Selective Courses (at least 6 credits)	晶體缺陷 Defects in Crystals、近代物理 Modern Physics、				
		粉末冶金 Powder Metallurgy、金屬熱處理學 Heat Tretment of				
		Metals、鑄造工程 Solidification、結構陶瓷特論、陶瓷製程 ramic				
		Processing、磁性材料 Magnetic Materials、固態物理 Solid State				
		Physics、半導體製程 Semiconductor Processings、*專題研究				
		Independent Study、專題研究(一)Independent Study(I)、材料有機化學				
		Organic Chemistry for Materials、高分子定性與分析 Characterization				
		and Analysis of Polymer、智慧型材料概論 Introduction to Smart				
		Materials、複合材料 Composite Materials、				
ム上、肥		真空鍍膜基礎 Fundamentals of Thin Film Vacuum Deposition、				
自由選		表面科學 Surface Science、光磁原理與元件 Optics Magnetism and				
修		Devices、晶體成長理論 Theories of Crystal Growth、奈米生醫材料簡				
Other Non-		介 Introduction to Nano-Biomaterials、低介電材料及製程技術 Low-K				
general		Materials and Processing Technologies、物理化學(二) Chemical				
Educatio		Kinetics (II)、材料物理性質 Physical Properities of Materials、能源材				
n		料 Materials for Energy Storage and Conversion Device、晶體學				
Courses		Crystallography、薄膜工程 Thin Film Engineering、分子生物學				
(18		Molecular Biology、量子力學 Quantum Mechanics、表面科學及工程				
credits)		Surface Science and Engineering、生物化學及感測技術、奈米元件與				
		量測技術、奈米製造與量測技術 Nanofabrication and				
		Characterization、奈米科技導論 Introduction to Nanotechnology、膠體				
		科學及工程 Advanced Colloidal Science、計算機概論 Introduction to				
	山久、肥/ケ	Computer				
	外系選修	下列課程不列入畢業學分:通識、語言中心課程、專班、軍訓、護				
	(至少 12 學分)	理、衛保組、學分學程。				
	Other Department Courses	Not including the courses of center of general education,				
		language teaching and research center, degree program, Military Training office, health services and Interdisciplinary Program				
	(at icast 12 cicuits)	printary framing office, hearth services and interdisciplinary Program				

材料科學與工程學系輔系科目表

Department of Materials Science and Engineering Minor Program

107 學年度(Academic Year 2018)

科目名稱 Course Name			學分數 Credit	備註	
材料科學與工程導(上、下) Introduction to Materials Science		材料熱力學(上、下)		必修共 12 學分	
and Engineering(I \ II)	6	Thermodynamics of Materials(I \cdot II)	6	12 credits, complusory course	
晶體結構與繞射導論 Introduction to Crystallography and Diffraction	3	物理冶金(上、下) Physical Metallurgy(I、II)	6	任選6學分	
材料動力學概論 Rate Processes in Materials	3	材料微觀結構分析 Microstructural Characterization of Materials	3	Any 6 credits	
金屬材料 Metal Materials	3	陶瓷材料 Ceramics Materials	3	任選3學分	
E子材料 lectronic Materials 3		高分子材料科學 Polymer Materials Science	3	Any 3 credits	