

材料科學與工程學系

Department of Materials Science and Engineering

109 學年度(Academic Year 2020)111.05 修訂

課程名稱 Course Name	學分 數 Credit	第一學年		第二學年		第三學年		第四學年		備 註
		Grade 1		Grade 2		Grade 3		Grade 4		
		上 1st	下 2nd	上 1st	下 2nd	上 1st	下 2nd	上 1st	下 2nd	
化學 General Chemistry	6	3	3							
化學實驗 General Chemistry Lab.	2	1	1							
物理 General Physics	8	4	4							
物理實驗 General Physics Lab.	2	1	1							
微積分 Calculus	8	4	4							
材料科學與工程導論 Introduction to Materials Science and Engineering	6	3	3							
材料熱力學 Thermodynamics of Materials	6			3	3					
工程數學 Engineering Mathematics	6			3	3					
物理冶金 Physical Metallurgy	6			3	3					
計算機概論 Introduction to Computer	3			3						
材料基礎實驗(一)(二) Elementary Materials Labs.	4			2	2					
晶體結構與繞射導論 Introduction to Crystallography and Diffraction	3				3					
材料工程實驗(一)(二) Advanced Materials Labs.	4					2	2			
服務學習(一) Campus Service	0		0							
服務學習(二) Campus Service	0			0						*0
生涯規劃及導師時間 Career Planning and Mentor's Hours	2	1	1							
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

Department of Materials Science and Engineering Program Plan (Mar. 25, 2020)

專業選修 (至少 9 學分) Major Selective (at least 9 credits)		材料機械性質 Mechanical Behaviours of Materials、 材料動力學概論 Rate Processes in Materials、 物理化學 Physical Chemistry、 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) Selective Materials Science Course (at least 9 credits)		金屬材料 Metal Materials、陶瓷材料 Ceramics Materials、 電子材料 Electronic Materials、 高分子材料科學 Polymer Materials Science
自由選修 Other Non-general Education Courses (18 credits)	一般選修 (至少 6 學分) General Selective Courses (at least 6 credits)	本系(含奈米所)所開課程除固態熱力學、擴散學、相變化、高分子物理、X 光繞射學、電子顯微鏡學、表面分析技術、書報討論、專業選修課程及材料選修課程外，皆可算入一般選修 Not including the courses of thermodynamics of Solid, diffusion, phase transformations, polymer physics, X-ray diffraction, transmission electron microscopy, surface analysis techniques, seminar, major selective and selective materials science course.
	外系選修 (至少 3 學分) Other Department Courses (at least 3 credits)	下列課程不列入畢業學分：通識、語言中心課程、專班、軍訓、護理、衛保組、學分學程。 Not including the courses of center of general education, language teaching and research center, degree program, Military Training office, health 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)

109 學年度(Academic Year 2020)

科目名稱 Course Name	學分數 Credit	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 and Engineering(I、II)	6	材料熱力學 (上、下) Thermodynamics of Materials(I、II)	6	必修共 12 學分 12 credits, compulsory 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 Any 6 credits

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	
金屬材料 Metal Materials	3	陶瓷材料 Ceramics Materials	3	任選 3 學分 Any 3 credits
電子材料 Electronic Materials	3	高分子材料科學 Polymer Materials Science	3	