Department of Materials Science & Engineering

Required courses and credits (applicable to undergraduates enrolling in 2022)

材料科學工程學系 111 學年度入學學生必修科目、學分數暨畢業總學分表

Specialized Elective 專業科目 (27學分) Specialized courses 27 Elective courses started with "MS" code offered by	類別	科 目 名 稱		學分數 Credits		備註	
大学中文 College Chinese 2	Categories					Note	
### 2							
操行 Manual Labor Service 特等期成績及移 Pass in each semester 学 機大学 General Chemistry 3 3 3 3 3 3 4 2 4 2 4 2 2 2 4 2 4 4 2 4 2	University required (30 credits)			8		2 學分 Pass the English Proficiency tests stipulated by NTHU can decrease 2 credits of Selected English courses.	
操行 Manual Labor Service 特等期成績及移 Pass in each semester 学 機大学 General Chemistry 3 3 3 3 3 3 4 2 4 2 4 2 2 2 4 2 4 4 2 4 2		12 JH 40 60	Core courses required	8-12		學生須於四個不同的核心向度中,至少各選一門課,須 修畢至少四門核心課程 Each min. one course in any of 4 dimensions	
操行 Manual Labor Service 特等期成績及移 Pass in each semester 学 機大学 General Chemistry 3 3 3 3 3 3 4 2 4 2 4 2 2 2 4 2 4 4 2 4 2		通識 課程 General education courses	選修科目 Optional courses	8-12			
操行 Manual Labor Service 特等期成績及移 Pass in each semester 学 機大学 General Chemistry 3 3 3 3 3 3 4 2 4 2 4 2 2 2 4 2 4 4 2 4 2			合計 Total	20			
操行 Manual Labor Service 特等期成績及移 Pass in each semester 学 機大学 General Chemistry 3 3 3 3 3 3 4 2 4 2 4 2 2 2 4 2 4 4 2 4 2		體育 Physical Education		0		1 至 3 年級必修 Required from Year 1 to Year 3	
# 養地化學 General Chemistry		勞作服務 Service		0		畢業前必修 60 小時 60hr before graduated	
### Beach Control Con		操行 Manual Labor Service				每學期成績及格 Pass in each semester	
Popuriment required (71 equired (71 equir		普通化學 General Chemistry		3	3		
を連物理策級 General Physics Laboratory 1 1 1 1 数数分 Calculus 対析科學與工程 Materials Science and Engineering 3 3 3 1		普通化學實驗 General Chemistry Laboratory		1	1		
機務分 Calculus 材材料學與工程 Materials Science and Engineering 3 3 3 工程數學 Engineering Mathematics		普通物理 General Physics		3	3		
Popurmen 東		普通物理實驗 General Physics Laboratory		1	1		
Popularing Authorities 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3		微積分 Calculus		3	3		
対対熱力学 Thermodynamics of Materials 3 3 3 3 3 3 3 3 3		材料科學與工程 Materials Science and Engineering		3	3		
接続性質 Mechanical Properties 3		工程數學 Engineering Mathematics		3	3		
接続性質 Mechanical Properties 3		材料熱力學 Thermodynamics of Materials		3	3		
接続性質 Mechanical Properties 3		晶體缺陷 Crystal defect		3			
接続性質 Mechanical Properties 3		擴散與相變化 Diffusion and Phase Transformation		3			
接続性質 Mechanical Properties 3		材料實驗一、二 Laboratories of Materials (I)(II)		2	2		
接続性質 Mechanical Properties 3				1			
### ### ### ### ### ### ### ### ### #		工程導論 Introduction to Engineering		2			
### ### ### ### ### ### ### ### ### #		機械性質 Mechanical Properties		3			
Introduction to Crystal Structure and Diffraction Theories 2		材料之物理性質 Physical Properties of Materials		3			
電子材料 Electronic Materials				3			
陶瓷材料 Ceramic Materials 3 5 科任選 3 科 Must choose three of these five courses 高分子材料 Polymer Materials 3 生醫材料 Biomedical Materials 3 專業選修 Specialized Elective (27 學分) (27 credits) 專業科目 Specialized courses Yerror 專業科目 Specialized courses Yerror 基低畢業總學分 Min. credits requirement at graduation Yerror Table Three of these five courses Yerror 專業科目会理、工、資電、原科、生科、科管之各學院課程(不会材料科學專題及工程倫理)。 Elective courses started with "MS" code offered by MSE Dept. Special Topics on Materials Science are not included. Yerror Table Three of these five courses		金屬材料 Metallic Materials		3		5 科任選 3 科 Must choose three of these five courses	
B		電子材料 Electronic Materials		3			
高分子材料 Polymer Materials 3 生醫材料 Biomedical Materials 3 專業選修 Specialized Elective (27 學分) (27 credits) 專業科目含理、工、資電、原科、生科、科管之各學院課程(不含材料科學專題及工程倫理)。 Elective courses started with "MS" code offered by MSE Dept. Special Topics on Materials Science are not included. 最低畢業總學分 Min. credits requirement at graduation 128		陶瓷材料 Ceramic Materials		3			
專業選修 Specialized Elective (27 學分) (27 credits) 專業科目 Specialized courses 27 專業科目 Specialized courses 27 專業科目 Specialized courses 27 專業科目 Specialized courses 27 基低畢業總學分 Min. credits requirement at graduation 128		高分子材料 Polymer Materials		3			
Specialized Elective (27 學分) (27 credits) 專業科目 Specialized courses 27 程,其中至少3科(9學分)應為本系(MS 字頭)選修課程(不含材料科學專題及工程倫理)。 Elective courses started with "MS" code offered by MSE Dept. Special Topics on Materials Science are not included. 最低畢業總學分 Min. credits requirement at graduation 128		生醫材料 Biomedical Materials		3			
最低畢業總學分 Min. credits requirement at graduation	Specialized Elective (27 學分)	專業科目 Specialized courses		27		程,其中至少3科(9學分)應為本系(MS字頭)選修課程(不含材料科學專題及工程倫理)。 Elective courses started with "MS" code offered by MSE Dept. Special Topics on Materials Science	
	Min. cr	最低畢業總導 edits requiremen	學分 t at graduation	128			
	備註 Note 修讀本系為雙主修之學生需修足本系專業選修學分 Double major students are required to take all the specialized elective courses offered by MSE Department.						