Department of Materials Science & Engineering
Required courses and credits (applicable to undergraduates enrolling in 2012)
材料科學工程學系 101 學年度入學學生必修科目、學分數暨畢業總學分表

類別 Categories	科目名稱 Courses		學分數 Credits 上學期 Autumn semester	學分數 Credits 下學期 Spring semester	備註 Note
校定必修（30學分） University required (30 credits)	大學中文 College Chinese		2		
	英文領域 English		8		
	通識課程 General education courses	核心必修 Core courses required	10-15		7 大向度中任選 5 向度，並於 5 向度中各修習 1 門課程 Min. one course in any of 5 dimensions respectively out of the 7 dimensions
		選修科目 Optional courses	8-10		社會科學領域及人文學領域至少各 4 學分 Min. 4 credits in social sciences and humanity sciences respectively
		合計 Total	20		
	體育 Physical Education		0		一至三學年必修 Required from Year 1 to Year 3
	勞作服務 Manual Labor Service		0		必修兩學期 Two semesters required
	操行 Behavior of Students				每學期成績及格 Pass in each semester
系定必修（82學分） Department required (82 credits)	普通化學 General Chemistry		3	3	
	普通化學實驗 General Chemistry Laboratory		1	1	
	普通物理 General Physics		3	3	
	普通物理實驗 General Physics Laboratory		1	1	
	微積分 Calculus		3	3	
	材料科學與工程 Materials Science and Engineering		3	3	
	工程數學 Engineering Mathematics		3	3	
	材料熱力學 Thermodynamics of Materials		3	3	
	擴散與相變化 Diffusion and Phase Transformation		3		
	材料實驗一、三 Laboratories of Materials (I)(III)		2	2	
	材料科技論壇 The Forum of Materials Science and Technology		1		
	工程導論 Introduction to Engineering		2		
	生命科學 Life Sciences		3		「生命科學一、二」及「生命科學與工程一、二」四選一 Must choose 3 credits from "Life Sciences I, II" and "Life Science & Engineering I, II"
	機械性質 Mechanical Properties		3		
	材料之物理性質 Physical Properties of Materials		3		
	結晶繞射概論 Introduction to Crystal Structure and Diffraction Theories		3		
	電工原理 Principle of Electrical Engineering		3		
	電工實驗 Laboratories of Electrical Engineering		1		
	電子學 Electronics		3		
	電子學實驗 Laboratories of Electronics		1		
	量子物理導論 Introduction to Quantum Physics		3		
	輸送現象導論 Introduction to Transport Phenomena		3		
	金屬材料 Metallic Materials		3		五科任選二科 Must choose two of these five courses
	電子材料 Electronic Materials		3		
	陶瓷材料 Ceramic Materials		3		
	高分子材料 Polymer Materials		3		
	生醫材料 Biomedical Materials		3		
專業選修 (16學分) Specialized Elective (16 credits)	專業科目 Specialized courses		16		材料系所開的選修課程（MS 字頭），其認定標準由本系決定。專題研究不屬於專業科目。 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		
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.				