

112 學年度課程規劃表(光電組)

Required Courses for New Students Admitted in the Academic Year 112

DEPARTMENT OF PHYSICS (SECTION OF ELECTRO-OPTICAL PHYSICS)

科 目 名 稱 C o u r s e t i t l e		學 分 數	Y e a r 1		Y e a r 2		Y e a r 3		Y e a r 4		備 註 Notes	
			1st	2nd	1st	2n	1st	2nd	1st	2nd		
General Education 26Credits												
基本 知能 課程 12 學分	外國語文學門(Q) Foreign Languages and Drills	8	2	2	2	2					大 1 英文必修、大 2 外文 自由選 English is required for freshmen.	
	中國語文能力表達 Capability of expressing chinese in spoken and written	2		2							語文表達 Language Expression	
	大學學習 Learning in University	1	1								學習與發展學門(N) Learning and Development	
	社團學習與實作 Extracurricular activities and team development	1		1							課外活動與團隊發展(K) Learning and practice of clubs:an Introduction	
通識 核心 課程 14 學分	AI 與程式語言 AI & Programming Language	1	1									
	探索永續 Exploring Sustainability	1	1									
	文學經典學門(L) Classics In World Literature	2									人文領域 至少 2 學 分 2 credits required (1 out of 4 categories)	每學門至多修習 2 科 4 學分
	歷史與文化學門(P) History And Cultures	2										
	哲學與宗教學門(V) Philosophy and Religion	2										
	藝術欣賞與創作學門(m) Art appreciation and invetion	2										
	全球視野學門(t) Global outlook	2									社會領域 至少 2 學 分 2 credits required (1 out of 4 categories)	
	未來學學門(r) Futures studies	2										
	社會分析學門(w) Social analysis	2										
	公民社會及參與學門(S) Civil Society And Participation	2										
	資訊教育學門(O) Information & Computer Education	2									科學領域 至少 2 學 分 2 credits required (1	
	全球科技革命學門(z) Global technology revolution	2										

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		1st	2nd	1st	2nd	1st	2nd	1st	2nd	
自然科學學門(u) Natural sciences	2									out of 4 categories)
體育 Physical education	0									
其他課程 全民國防教育軍事訓練 (一)-國防科技 All-Out Defense Education Military Training(I)-National Defense Technolog	0									0 credit, offered in Year 1 for one semester
校園與社區服務學習 Learning campus and community srevicees	0									
Physics Department Required Course 62 Credits										
普通化學 General chemistry	3	3								
普通化學實驗 General chemistry lab.	1	1								實驗課程
普通物理 General Physics	8	4	4							
普通物理實驗 General physics lab.	2	1	1							實驗課程
微積分 Calculus	6	3	3							
基礎物理數學 Fundamental mathematical physics	2		2							
電磁學 Electromagnetism	6			3	3					
物理數學 Mathematical physics	3			3						
電磁學實驗 Electromagnetic physics lab.	2			1	1					實驗課程
力學 Mechanics	3			3						
量子物理 Quantum physics	6					3	3			
熱力學 Thermodynamics	3					3				

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		1st	2nd	1st	2n	1st	2nd	1st	2nd	
光學 Optics	3					3				
光學實驗 Optics lab.	1					1				實驗課程
電子學 Electronics	3					3				
電子學實驗 Electronics lab.	2					1	1			實驗課程
半導體物理 Physics Of Semiconductors	3					0	3			Choose 1 course from 4, the remaining courses are recognized as electives in the department
光電系統概論 Introduction To Opto-Electric System	3					0	3			
同步輻射概論與應用 Introduction To Synchrotron Radiation: Techniques And Applications	3							3	0	
量子光學導論 Introduction To Quantum Optics	3							3	0	
近代物理實驗 Modern physics lab	2							1	1	實驗課程

(1) Required credits (including general education 26 credits) : 88credits

(2) Minimum departmental elective credits : 20 credits

(3) Free elective credits : 20 credits

Total credits for graduation : 128 credits

112 學年度課程規劃表(應物組)

Required Courses for New Students Admitted in the Academic Year 112

DEPARTMENT OF PHYSICS (SECTION OF APPLIED PHYSICS)

科 目 名 稱 C o u r s e t i t l e		學 分 數	Y e a r 1		Y e a r 2		Y e a r 3		Y e a r 4		備 註 Notes	
			1st	2nd	1st	2n	1st	2nd	1st	2nd		
General Education 26Credits												
基本 知能 課程 12 學分	外國語文學門(Q) Foreign Languages and Drills	8	2	2	2	2					大 1 英文必修、大 2 外文 自由選 English is required for freshmen.	
	中國語文能力表達 Capability of expressing chinese in spoken and written	2		2							語文表達 Language Expression	
	大學學習 Learning in University	1	1								學習與發展學門(N) Learning and Development	
	社團學習與實作 Extracurricular activities and team development	1		1							課外活動與團隊發展(K) Learning and practice of clubs:an Introduction	
通識 核心 課程 14 學分	AI 與程式語言 AI & Programming Language	1	1									
	探索永續 Exploring Sustainability	1	1									
	文學經典學門(L) Classics In World Literature	2									人文領域 至少 2 學 分 2 credits required (1 out of 4 categories)	每學門至多修習 2 科 4 學分
	歷史與文化學門(P) History And Cultures	2										
	哲學與宗教學門(V) Philosophy and Religion	2										
	藝術欣賞與創作學門(m) Art appreciation and invetion	2										
	全球視野學門(t) Global outlook	2									社會領域 至少 2 學 分 2 credits required (1 out of 4 categories)	
	未來學學門(r) Futures studies	2										
	社會分析學門(w) Social analysis	2										
	公民社會及參與學門(S) Civil Society And Participation	2										
	資訊教育學門(O) Information & Computer Education	2									科學領域 至少 2 學 分 2 credits required (1	
	全球科技革命學門(z) Global technology revolution	2										

112 學年度課程規劃表(應物組)

Required Courses for New Students Admitted in the Academic Year 112

DEPARTMENT OF PHYSICS (SECTION OF APPLIED PHYSICS)

科 目 名 稱 C o u r s e t i t l e	學 分 數	Y e a r 1		Y e a r 2		Y e a r 3		Y e a r 4		備 註 Notes
		1st	2nd	1st	2n	1st	2nd	1st	2nd	
自然科學學門(u) Natural sciences	2									out of 4 categories)
體育 Physical education	0									
其他課程 全民國防教育軍事訓練 (一)-國防科技 All-Out Defense Education Military Training(I)-National Defense Technolog	0									0 credit, offered in Year 1 for one semester
校園與社區服務學習 Learning campus and community srevices	0									
Physics Department Required Course 62 Credits										
普通化學 General chemistry	3	3								
普通化學實驗 General chemistry lab.	1	1								實驗課程
普通物理 General Physics	8	4	4							
普通物理實驗 General physics lab.	2	1	1							實驗課程
微積分 Calculus	6	3	3							
基礎應用數學 Fundamental Applied Mathematics	2		2							
應用電磁學 Applied Electromagnetism	6			3	3					
應用數學 Applied Mathematics	3			3						
電磁學實驗 Electromagnetic physics lab.	2			1	1					實驗課程
應用力學 Applied Mechanics	3			3						
量子物理 Quantum physics	6					3	3			
熱物理 Thermal Physics	3					3				

112 學年度課程規劃表(應物組)

Required Courses for New Students Admitted in the Academic Year 112

DEPARTMENT OF PHYSICS (SECTION OF APPLIED PHYSICS)

科 目 名 稱 C o u r s e t i t l e	學 分 數	Y e a r 1		Y e a r 2		Y e a r 3		Y e a r 4		備 註 Notes
		1st	2nd	1st	2n	1st	2nd	1st	2nd	
光學 Optics	3						3			
光學實驗 Optics lab.	1						1			實驗課程
應用電子學 Applied Electronics	3					3				
應用電子學實驗 Applied Electronic lab.	2					1	1			實驗課程
計算物理 Computational Physics	3					0	3			Choose 1 course from 4, the remaining courses are recognized as electives in the department
統計力學導論 Introduction To Statistical Mechanics	3					0	3			
固態物理 Solid State Physics	3							3	0	
量子力學(一) Quantum Mechanics(I)	3							3	0	
近代物理實驗 Modern physics lab	2							1	1	實驗課程

(3) Required credits (including general education 26 credits) : 88credits

(4) Minimum departmental elective credits : 20 credits

(3) Free elective credits : 20 credits

Total credits for graduation : 128 credits