物理研究所跨域模組課程必修科目表 (B) The Compulsory Course List for Cross-Disciplinary Program in Institute of Physics (B)

			1 rogram m msutu	tt of f	nysics (D)		
類別			科目名稱	學分	開課系		備註
Category			Name of course	Cred	所		Remark
				its	Offered		
					by		
本所跨			物理數學(一)/物理數	3/3	物理所	1. 來自	工數、應數非必修的科系。
域模組			學(二)	-, -	IOP	Fron	
(30 學			Mathematical Physics		.01		ineering Mathematics and
· ·			(I) / Mathematical			App	
分)			Physics (II)				pulsory courses.
Cross-				2/2	雨山名	Com	pulsory courses.
discipli			應用數學(一)/應用數	3/3	電物系		
nary			學(二)		DEP		
program			或微積分之外的2學		工學院		
module			期數學相關課程		COE		
curricul			Applied Mathematics		電機學		
um at			(I) / Applied		院		
Our			Mathematics (II) or		ECE		
Institute			two engineering				
(30		右列	mathematic courses				
credits)		四擇一	above calculus				
佐田山		Choose	近代物理(一)/近代物	3/3	物理所	1. 來自	工數、應數為必修的科系與
修畢於		one	理(二)/*核心課程/*核		IOP	應數	《系學生。Students from a
畢業證		out of	心課程		.01	depa	ertment where Engineering
書加註		the	(4 門課中擇 2 修習)			-	nematics or Applied
『跨域		four	Modern Physics (I) /			Matl	nematics are compulsory
專長:	第一	from	Modern Physics (II)			cour	ses. From Department of
物理』	階段	the	/*core curriculum/			App	lied Mathematics.
It could		right	*core curriculum			2. 修遐	直電物系近代物理(一)(二)得
be	Stage 1	115111	(choose two out of four)			申請	抵免。A credit waiver may
remarke		詳見備					ranted for students who have
d as		註				_	n Modern Physics (I) and (II)
"Cross-							e Department of
discipli		See					trophysics.
nary		remar ks	近代物理(一)/近代物	3/3	物理所		生科系與應化系學生。
Specialt		KS	理(二)/物理化學				n Department of Biological
y:			(二)/*核心課程		<u>IOP</u>		nce and Technology and
Physics							artment of Applied
" on the			(4 門課中擇 2 修習)				mistry.
diploma			Modern Physics (I) /				<u> </u>
after the			Modern Physics (II)				条物理化學(二)得申請抵
module			/ Physical Chemistry				A credit waiver may be
curricul			(II) / *core				
um is			curriculum (choose two out of				nted for students who have n Modern Physics (I) & (II)
complet			(choose two out of four)				ne Department of
ed.			<u>10ur j</u>				trophysics and Physical
							mistry (II) in Department of
							ogical Science and
							inology.
		N. 14	經典物理(一)/經典物	3/3	Ho TH SC		
		必修	在共初年(一)/经典物	3/3	物理所	刀字 、	電磁學、 <u>熱力學</u> 、特殊相對

		compul	理(二)		IOP	論等
		sory	Classical Physics (I) /		101	Mechanics, Electromagnetics,
		course	Classical Physics (II)			Thermodynamics, Special Relativity
		S	Classical Thysics (11)			Thermoughamies, special Relativity
			量子力學(一)/量子力	3/3	物理所	1. 來自工數、應數非必修的科
			學(二)		IOP	系。From a department where
			Quantum Mechanics (I)		101	Engineering Mathematics and
		右列	/ Quantum Mechanics	3/3		Applied Mathematics are not
		二擇一	(II)			compulsory courses.
		Choose				2. 來自工數、應數為必修的科系
		one	進階實驗(一)/*核心課			與應數系學生。Students from a
		out of	程 或 進階實驗(一)/			department where Engineering
		the	(二)			Mathematics or Applied
	第二 階段 Stage 2	two	Advanced Lab (I)/*core			Mathematics are compulsory
		from	curriculum			courses. From Department of
		the	or Advanced Lab (I)/(II)			Applied Mathematics.
		right	生物物理學/非平衡統	<u>3/3</u>	物理所	
			計專題		IOP	
		詳見備	Biophysics/ Topics in	<u>3/3</u>	101	
		註	Non-Equilibrium			來自生科系與應化系學生。From
		See	Statistics			Department of Biological Science and
		remar	原子分子物理(一)/統			Technology and Department of
		ks	計力學(一)			Applied Chemistry.
			Atomic Molecular			
			Physics (I)/ Statistical			
			Mechanics (I)			
		必修	專題研究論文(一)/專	3/3	物理所	
	第三	compul	題研究論文(二)		IOP	
	階段	sory	Topic Research and			
	Stage 3	course	Thesis (I) / Topic			
	Juge J	S	Research and Thesis			
			(II)			
總學分(30學分) Total credits (30 credits)					-) b 7 l	1.四() 雨玉,上缀()() 1. 井上

一、物理研究所跨域模組之*核心課程:統計力學(一)、固態物理(一)(二)、粒子物理(一)、電動力學(一)(二)、古典力學、量子場論(一)、原子分子物理(一)、廣義相對論、宇宙學簡介、計算物理、數值分析。

^{1. *}Core curriculum for the cross-disciplinary program of Institute of Physics: Statistical Mechanics (I), Solid State Physics (I) and (II), Particle Physics (I), Electrodynamics (I) and (II), Classical Mechanics, Quantum Field Theory (I), Molecular Physics (I), General Relativity, Introduction to Cosmology, Computational Physics and Numerical Methods for Physics.

二、擋修(先修)規定:所有課程必須先修過基礎(一)的課程,才能再選修進階(二)的課程。

^{2.} Prerequisite requirement: For all the courses, the fundamental course which is marked as (I) shall be taken before the advanced course which is marked as (II).