

✓日間部 111 學年度 電機工程系四技備註修正表

修正後			修正前		
項 目	學分	時數	項 目	學分	時數
校必修	16	18	校必修	16	18
院必修	32	35	院必修	32	35
※專業必修	40	47	※專業必修	40	45
專業選修	42	42	專業選修	42	42
合 計	128	142	合 計	128	140

日間部 112 學年度 電機工程系四技備註修正表

修正後			修正前		
項 目	學分	時數	項 目	學分	時數
校必修	16	18	校必修	16	18
院必修	30	33	院必修	30	33
※專業必修	40	47	※專業必修	40	45
專業選修	42	42	專業選修	42	42
合 計	128	140	合 計	128	138

日間部 113 學年度 電機工程系四技備註修正表

修正後			修正前		
項 目	學分	時數	項 目	學分	時數
校必修	16	16	校必修	16	16
院必修	26	26	院必修	26	26
※專業必修	45	47	※專業必修	45	45
專業選修	41	41	專業選修	41	41
合 計	128	130	合 計	128	128

明新科技大學電機系
課務規劃委員會章

電機工程系
主任 林清隆

半導體學院
院長 張 合

111學年度日間部 電機工程系 四技課程規劃表

第一學年(111)					第二學年(112)					第三學年(113)								
	科目	上學期		下學期		科目	上學期		下學期		科目	上學期		下學期				
		學分	時數				學分	時數				學分	時數		學分	時數		
校必修	體育	0	2	0	2	校必修	分類通識	2	2	2	2	校必修						
	分類通識	2	2	2	2		分類通識	2	2									
	分類通識	2	2	2	2													
	小計	4	6	4	6		小計	4	4	2	2		小計	0	0	0	0	
院必修	微積分(一)(二)	3	3	3	3	院必修	科技英文(三)(四)	2	2	2	2	院必修	工程倫理	2	2			
	科技英文(一)(二)	2	2	2	2													
	應用中文(一)(二)	2	2	2	2													
	化學與化學實驗	2	3															
	基本電學與電學實驗	2	3															
	程式設計	3	3															
	物理與物理實驗				2		3											
	人工智慧概論				3		3											
小計	14	16	12	13	小計	2	2	2	2	小計	2	2	0	0				
專業必修	數位邏輯設計	3	3			專業必修	工程數學(一)(二)	3	3	3	3	專業必修	自動控制	3	3			
	電路學(一)				3		3	3	3	電力系統	3		3					
	電路實習(一)				1		2	1	2	通訊原理	3		3					
										實務專題					1	2		
	小計	3	3	4	5		小計	11	13	11	13		小計	9	9	1	2	
專業選修	■●◇微處理機應用				3	3	專業選修	◇電腦網路	3	3			專業選修	■●◇物聯網系統實務	3	3		
								■冷空氣調工程	3	3				■●◇App程式設計	3	3		
								■●◇微處理機實務	3	3				■●◇線性代數	3	3		
								電腦硬體裝修實務	3	3				■燃料電池與程序控制	3	3		
								■能源與應用			3	3		■配電工程	3	3		
								■冷空氣調實務			3	3		■電力電子學	3	3		
								■●◇網路分析			3	3		●◇訊號與系統	3	3		
												●◇程式化邏輯設計		3	3			
第四學年(114)					專業選修課程開課規劃													
	科目	上學期		下學期		學期		時數			學期		時數					
		學分	時數			第一學年第一學期	0				第一學年第二學期	3						
校必修	小計	0	0	0	0	第二學年第一學期	3			院必修	小計	0	0	0	0			
						第二學年第二學期	4											
院必修	小計	0	0	0	0	第三學年第一學期	12			專業必修	小計	0	0	0	0			
						第三學年第二學期	12											
專業必修	實務專題	1	2			第四學年第一學期	9			專業選修	小計	1	2	0	0			
						第四學年第二學期	0											
專業選修	小計	1	2	0	0	選修開課時數總計	43			專業選修	小計	1	2	0	0			
專業選修	校外實習	9	9	9	9	科目類別：					專業選修	小計	9	9				
						共同科目：體育												
專業選修	■●◇創新與發明	3	3			通識科目：分類通識					專業選修	小計	9	9				
						專業科目：院必修、專業必修、專業選修												
專業選修	■電力負載管理	3	3								專業選修	小計	9	9				
專業選修	■風力發電與能量轉換	3	3								專業選修	小計	9	9				
專業選修	■太陽能發電系統監控	3	3								專業選修	小計	9	9				
專業選修	■再生能源發電系統	3	3								專業選修	小計	9	9				
專業選修	●線性控制	3	3								專業選修	小計	9	9				
專業選修	●系統動態學	3	3								專業選修	小計	9	9				
專業選修	●控制系統介面設計	3	3								專業選修	小計	9	9				
專業選修	●◇影像處理	3	3								專業選修	小計	9	9				
專業選修	◇數位通訊	3	3								專業選修	小計	9	9				
專業選修	◇RFID天線設計	3	3								專業選修	小計	9	9				
專業選修	◇電磁相容概論	3	3								專業選修	小計	9	9				
專業選修	◇電磁波應用	3	3								專業選修	小計	9	9				
專業選修	◇手持裝置天線設計	3	3								專業選修	小計	9	9				
專業選修	◇手持衛星導航系統	3	3								專業選修	小計	9	9				
專業選修	◇手機通訊原理與應用	3	3								專業選修	小計	9	9				
專業選修	◇RFID應用系統開發實務	3	3								專業選修	小計	9	9				
專業選修	◇通訊電子學	3	3								專業選修	小計	9	9				
專業選修	◇行動通訊概論	3	3								專業選修	小計	9	9				
專業選修	◇平面顯示器驅動電路	3	3								專業選修	小計	9	9				
專業選修	工業管理	3	3								專業選修	小計	9	9				
專業選修	■●電動機控制實務	3	3								專業選修	小計	9	9				
專業選修	PWM控制IC應用	3	3								專業選修	小計	9	9				
專業選修	■太陽能工程				3	3						專業選修	小計	9	9			
專業選修	■電機機械設計				3	3						專業選修	小計	9	9			
專業選修	◇電磁相容實務				3	3						專業選修	小計	9	9			
專業選修	數位通訊實務				3	3						專業選修	小計	9	9			
專業選修	影像處理實務				3	3						專業選修	小計	9	9			
專業選修	PWM控制IC分析				3	3						專業選修	小計	9	9			

明新科技大學電機系
課務規劃委員會章

電機工程系
主 任 林清隆

注意事項：

1.本校訂有學生基本能力與專業門檻實施辦法。

2.學生需修習勞作教育(0學分4小時)，並於第一學年上下二學期實施。

3.一~三年級每學期應修習16~30學分，四年級每學期應修習9~30學分。

4.最低畢業學分：128學分；必修學分：86學分；選修學分：42學分(選修學分含跨系選修學分)；惟於本系專業選修學分不得低於30學分。

5.本系學生須完成選修電源工程模組(■)、系統工程模組(●)、通訊工程模組(◇)等三項模組中任一模組之3門模組正課及2門模組實務課始得畢業。

6.畢業年級相當於國內高級中等學校二年級之國外或香港、澳門同類同級學校畢業生，以同等學歷修讀本校學士學位者，最低畢業學分：140學分；必修學分：86學分；選修學分：54學分(選修學分含跨系選修學分)，惟於本系專業選修學分不得低於42學分，可延長修業年限3年。

7.學生應修習校外實習課程，相關辦法依「本校電機工程系學生校外實習教學實施要點」辦理。

8.表列選修課程僅供參考，依實際狀況調整。

華南學院

MUST Curriculum Planning for Undergraduate Students for Academic Years 2022-2025
Department of Electrical Engineering

1 st year(111)					2 nd year(112)					3 rd year(113)							
	Course	1 st semester		2 nd semester			Course	1 st semester		2 nd semester			Course	1 st semester		2 nd semester	
		Cr.	hr.	Cr.	hr.			Cr.	hr.	Cr.	hr.			Cr.	hr.	Cr.	hr.
MUST Core Required Courses	Physical Education	0	2	0	2	MUST Core Required Courses	Classified general Education	2	2	2	2	MUST Core Required Courses					
	Classified general Education	2	2	2	2		Classified general Education	2	2								
	Classified general Education	2	2	2	2												
	Subtotal	4	6	4	6		Subtotal	4	4	2	2		Subtotal	0	0	0	0
School Professional Required Courses	Applied Chinese(I)(II)	2	2	2	2	School Professional Required Courses	Technical English(III)(IV)	2	2	2	2	School Professional Required Courses	Ethics for Engineers	2	2		
	Technical English(I)(II)	2	2	2	2												
	Calculus (I)(II)	3	3	3	3												
	Chemistry and Chemistry Experiment	2	3														
	Basic Electricity and Electrical Experiment	2	3														
	Introduction to Computers and Programming	3	3														
	Physics and Physics Experiment			2	3												
	Introduction to Artificial Intelligence			3	3												
	Subtotal	14	16	12	13		Subtotal	2	2	2	2		Subtotal	2	2	0	0
Department compulsory courses	Digital Logic Design	3	3			Department compulsory courses	Engineering Mathematics (I)(II)	3	3	3	3	Department compulsory courses	Automatic Control	3	3		
	Electric Circuit (I)			3	3		Electronics (I)(II)	3	3	3	3		Power Systems	3	3		
	Electric Circuit Lab (I)			1	2		Electronic Lab (I)(II)	1	2	1	2		Principles of Communications	3	3		
					Electric Circuit (II)		3	3			Special Practical Projects				1	2	
					Electric Circuit Lab(II)		1	2									
					Electrical Machinery				3	3							
					Electrical Machinery Lab				1	2							
		Subtotal	3	3	4		5		Subtotal	11	13		11	13		Subtotal	9
Department Elective Courses	Micro-computer Application			3	3	Department Elective Courses	Computer network	3	3			Department Elective Courses	Applications for Internet of Things System	3	3		
					Freezing and Air-Conditioning Engineering		3	3			App Programming		3	3			
					Microprocessor Practice		3	3			Linear Algebra		3	3			
					The Installation and Practice of Computer Hardware		3	3			Fuel Cell and Processing Control		3	3			
					Energy and Applications				3	3	Power Distribution Engineering		3	3			
					Freezing and Air conditioning Engineering Practice				3	3	Power Electronics		3	3			
					Network Analysis				3	3	Signal and Systems		3	3			
											Programming Logic Design		3	3			
4 th year(114)																	
	Course	1 st semester		2 nd semester			Course	1 st semester		2 nd semester			Course	1 st semester		2 nd semester	
		Cr.	hr.	Cr.	hr.			Cr.	hr.	Cr.	hr.			Cr.	hr.	Cr.	hr.
MUST Core Required Courses						MUST Core Required Courses					MUST Core Required Courses						
	Subtotal	0	0	0	0		Subtotal	0	0	0		0	Subtotal	0	0	0	0
School Professional Required Courses						School Professional Required Courses					School Professional Required Courses						
	Subtotal	0	0	0	0		Subtotal	0	0	0		0	Subtotal	0	0	0	0
Department compulsory courses	Special Practical Projects	1	2			Department compulsory courses					Department compulsory courses						
	Subtotal	1	2	0	0		Subtotal	1	2	0	0		Subtotal	1	2	0	0
Department Elective Courses	Off-Campus Internship	9	9	9	9	Department Elective Courses	Off-Campus Internship	9	9	9	9	Department Elective Courses	Off-Campus Internship	9	9	9	9
	Innovation and Invention	3	3				Innovation and Invention	3	3				Innovation and Invention	3	3		
	Electrical Load Management	3	3				Electrical Load Management	3	3				Electrical Load Management	3	3		
	Wind Power Generation and Energy Conversion	3	3				Wind Power Generation and Energy Conversion	3	3				Wind Power Generation and Energy Conversion	3	3		
	Survey and Control of Solar Energy Generation Systems	3	3				Survey and Control of Solar Energy Generation Systems	3	3				Survey and Control of Solar Energy Generation Systems	3	3		
	Renewable Energy Generation Systems	3	3				Renewable Energy Generation Systems	3	3				Renewable Energy Generation Systems	3	3		
	Linear Control	3	3				Linear Control	3	3				Linear Control	3	3		
	System Dynamics	3	3				System Dynamics	3	3				System Dynamics	3	3		
	Control system integration design	3	3				Control system integration design	3	3				Control system integration design	3	3		
	Image Processing	3	3				Image Processing	3	3				Image Processing	3	3		
	Digital Communications	3	3				Digital Communications	3	3				Digital Communications	3	3		
	RFID Antenna Design	3	3				RFID Antenna Design	3	3				RFID Antenna Design	3	3		
	Introduction to EMC	3	3				Introduction to EMC	3	3				Introduction to EMC	3	3		
	Applications of Electromagnetic Wave	3	3				Applications of Electromagnetic Wave	3	3				Applications of Electromagnetic Wave	3	3		
	Handheld Device Antenna Design	3	3				Handheld Device Antenna Design	3	3				Handheld Device Antenna Design	3	3		
	Hand-held satellite navigation system	3	3				Hand-held satellite navigation system	3	3				Hand-held satellite navigation system	3	3		
	Principles and Applications of Mobile Communication	3	3				Principles and Applications of Mobile Communication	3	3				Principles and Applications of Mobile Communication	3	3		
	RFID Application Development	3	3				RFID Application Development	3	3				RFID Application Development	3	3		
	Communication Electronics	3	3				Communication Electronics	3	3				Communication Electronics	3	3		
	Introduction to Mobile Communications	3	3				Introduction to Mobile Communications	3	3				Introduction to Mobile Communications	3	3		
	Driving Circuit for Plane Display	3	3				Driving Circuit for Plane Display	3	3				Driving Circuit for Plane Display	3	3		
	Industrial Management	3	3				Industrial Management	3	3				Industrial Management	3	3		
	Electric Machine Control Practice	3	3				Electric Machine Control Practice	3	3				Electric Machine Control Practice	3	3		
	Applications of PWM Control IC	3	3				Applications of PWM Control IC	3	3				Applications of PWM Control IC	3	3		
	Solar Energy Engineering			3	3		Solar Energy Engineering			3	3		Solar Energy Engineering			3	3
	Electrical Machinery Design			3	3		Electrical Machinery Design			3	3		Electrical Machinery Design			3	3
	EMC Practice			3	3		EMC Practice			3	3		EMC Practice			3	3
	Digital Communication Practice			3	3		Digital Communication Practice			3	3		Digital Communication Practice			3	3
	Image Processing Practice			3	3		Image Processing Practice			3	3		Image Processing Practice			3	3
	Analysis of PWM Control IC			3	3		Analysis of PWM Control IC			3	3		Analysis of PWM Control IC			3	3

明新科技大學電機系
課務規劃委員會章

電機工程系 林清隆
主 任

半導體學院 張合
院 長

Cr./hr.=Credit/hour
Remarks:
1. According to university regulations, students are required to meet the graduation requirement of basic language proficiency and professional skills.
2. Students shall take 4 hours Service Education courses (0 credits) in the first and second semester of the first academic year.
3. In the first three years, students must take 16-30 credits per semester, and 9-30 credits per semester in the 4th year.
4. Minimum graduation credits: 128 credits; Compulsory credits: 95 credits; Elective credits: 33 credits (elective credits include inter-departmental elective credits); the elective credits for majors in the department must not be lower than 21 credits.
5. In order to graduate, each student must take at least 12 credits in one of the three modular courses: Electric Power Engineering, System Engineering, and Communication Engineering, including 9 credits in regular courses and 6 credits in practice courses.
6. Students having graduated from a foreign country, including Hong Kong and Macau, with the equivalent of the second year of high school study of the ROC's high school sophomore level, or with a high school equivalent degree, need to take 140 credits including 95 compulsory credits, and at least 45 elective credits (including inter-departmental elective credits), while elective professional course credits shall not be fewer than 25. The program can be extended up to 3 academic years.
7. Students should take off-campus internship courses, and the relevant measures are handled in accordance with the Implementation

明新科技大學電機系
課務規劃委員會章

電機工程系 林清隆
主 任

半導體學院 張合
院 長

Cr./hr.=Credit/hour

Remarks:

- According to university regulations, students are required to meet the graduation requirement of basic language proficiency and professional skills.
- Students shall take 4 hours Service Education courses (0 credits) in the first and second semester of the first academic year.
- In the first three years, students must take 16-30 credits per semester, and 9-30 credits per semester in the 4th year.
- Minimum graduation credits: 128 credits; Compulsory credits: 95 credits; Elective credits: 33 credits (elective credits include inter-departmental elective credits); the elective credits for majors in the department must not be lower than 21 credits.
- In order to graduate, each student must take at least 12 credits in one of the three modular courses: Electric Power Engineering, System Engineering, and Communication Engineering, including 9 credits in regular courses and 6 credits in practice courses.
- Students having graduated from a foreign country, including Hong Kong and Macau, with the equivalent of the second year of high school study of the ROC's high school sophomore level, or with a high school equivalent degree, need to take 140 credits including 95 compulsory credits, and at least 45 elective credits (including inter-departmental elective credits), while elective professional course credits shall not be fewer than 25. The program can be extended up to 3 academic years.
- Students should take off-campus internship courses, and the relevant measures are handled in accordance with the Implementation of Off-campus Internship Teaching for Students in the Department of Electrical Engineering.
- Elective courses are subject to change if necessary.