

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

1 st year(I11)					2 nd year(I12)					3 rd year(I13)							
	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								
	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					
	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	Ethics for Engineers	2	2		
	※Electric Circuit (I)			3	3		Electronics (I)(II)	3	3	3	3		Automatic Control	3	3		
	※Electric Circuit Lab (I)			1	2		Electronic Lab (I)(II)	1	2	1	2		Power Systems	3	3		
							Electric Circuit (II)	3	3				Principles of Communications	3	3		
Subtotal	3	3	4	5	Subtotal	11	13	11	13	Subtotal	9	9	1	1			
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		

4 th year(I14)					
	Course	1 st semester		2 nd semester	
		Cr.	hr.	Cr.	hr.
MUST Core Required Courses					
	Subtotal	0	0	0	0
School Professional Required Courses					
	Subtotal	0	0	0	0
Department compulsory courses	Special Practical Projects	1	1		
	Off-Campus Internship			9	9
Subtotal	1	1	9	9	
Department Elective Courses	Corporate Internship	9	9		
	◆Innovation and Invention	3	3		
	◆Electrical Load Management	3	3		
	◆Wind Power Generation and Energy Conversion	3	3		
	◆Supervisory and Control of Solar Energy Generation Systems	3	3		
	◆Renewable Energy Generation Systems	3	3		
	◆Linear Control	3	3		
	◆System Dynamics	3	3		
	◆Control system integration design	3	3		
	◆Image Processing	3	3		
	◇Digital Communications	3	3		
	◇RFID Antenna Design	3	3		
	◇Introduction to EMC	3	3		
	◇Applications of Electromagnetic Wave	3	3		
	◇Handheld Device Antenna Design	3	3		
	◇Hand-held satellite navigation system	3	3		
	◇Principles and Applications of Mobile Communication	3	3		
	◇RFID Application Development	3	3		
	◇Communication Electronics	3	3		
	◇Introduction to Mobile Communications	3	3		
	◇Driving Circuit for Plane Display	3	3		
	Industrial Management	3	3		
	◆Electric Machine Control Practice	3	3		
	Applications of PWM Control IC	3	3		
	◆Solar Energy Engineering			3	3
	◆Electrical Machinery Design			3	3
	◆EMC Practice			3	3
	Digital Communication Practice			3	3
	Image Processing Practice			3	3
	Analysis of PWM Control IC			3	3

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.
- Must complete the 20 transferable inter-departmental credits (excluding core required courses (Chinese Reading and Expressions(I)(II) · English(I)(II) · Introduction to Programming · Introduction to Artificial Intelligence · Technical English(I)(II) · Applied English(I)(II) · school professional required courses, department compulsory and department elective courses.)
- 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.

明新科技大學電機系
課務規劃委員會

電機工程系主任 林清隆

半導體學院院長 呂明峰