

MUST Curriculum Planning for Undergraduate Students for Academic Years 2023-2026 Department of Semiconductor and Electro-Optical Technology

Year		111		112		Year		112		113		Year		113		114	
		FEB 2023		SEP 2023				FEB 2024		SEP 2024				FEB 2025		SEP 2025	
Course		Cr.	hr.	Cr.	hr.	Course		Cr.	hr.	Cr.	hr.	Course		Cr.	hr.	Cr.	hr.
MUST Core Required Courses	Physical Education	1	2	1	2	MUST Core Required Courses						MUST Core Required Courses	Classified general Education-Taiwan Life and Law	2	2		
	Chinese Pinyin Pronunciation Practice	1	2										Classified general Education-Taiwanese Society	2	2		
	Chinese Listening Practice	1	2										Classified general Education-Taiwanese Culture			2	2
	Chinese Conversation Practice	1	2										Classified general Education-Taiwanese Art			2	2
	Chinese Reading and Comprehension	1	2														
	Chinese Writing Practice	1	2														
	Chinese tutoring	0	5														
	Chinese Literature			3	3												
School Professional Required Courses	Chinese Culture			3	3	School Professional Required Courses						School Professional Required Courses					
	Subtotal	6	17	7	8		Subtotal	0	0	0	0		Subtotal	4	4	4	4
	Technical English(I)(II)	2	2	2	2								Technical English(III)(IV)	2	2	2	2
Compulsory Courses	Subtotal	2	2	2	2	Compulsory Courses	Subtotal	0	0	0	0	Compulsory Courses	Ethics for Engineers			2	2
	Physics	3	3				Lab of Property Practice(I)(II)	9	9	9	9		Subtotal	2	2	4	4
	Applied Mathematics	2	2										Introduction to Modern Science	3	3		
	Basic Circuit Theory	2	2										Introduction to Modern Science	3	3		
	Introduction to Optoelectric Industry	2	2										Electronics Lab(II)	3	3		
	Computer Data Processing			2	3								Optoelectric Lab			3	3
	Electronics Circuits			3	3								Laser Engineering			3	3
	Electronics Lab(I)			3	3												
Elective Courses	Geometrical Optics			3	3	Elective Courses	Subtotal	9	9	9	9	Elective Courses	Subtotal	9	9	6	6
	Subtotal	9	9	11	12		Optoelectronics Technology (I)(II)	2	2	2	2		CAD of Solid Design	3	3		
	Computer Aided Design Model and Engineering Drawings			2	2		Material Science and Engineering	2	2				Solid State Lighting	3	3		
	Vacuum Technology			2	2		Introduction to Computers and Programming	2	2				Certification of Solid Design CAD and Product Design	3	3		
	Material Science and Engineering			2	2		Solid State Lighting	2	2				Technology Management	3	3		
	Introduction to Bio-Medical Engineering			2	2		Introduction to Artificial Intelligence	2	2				Photonics applications	3	3		
	Engineering Applied Mathematics			2	2		Micro-computer Application	3	3				Thin Film Technology	3	3		
	Introduction to Computers and Programming			2	2		Mobile Computing Practice	3	3				Semiconductor Manufacturing Equipment	3	3		
							App Programming	3	3				Certification of Solid Design CAD	3	3		
							Practical Vacuum Technology	3	3				Semiconductor Packaging Process and Equipment	3	3		
							Surface Engineering and AI Assistance	3	3				Nanomaterials	3	3		
							Introduction of Flat Panel Displays	3	3				Computer-Aided Optical System Design	3	3		
							Engineering statistics			2	2		Optical Thin Film and Coating Technology			3	3
							Chromatics			2	2		Data Science			3	3
							CAD of Solid Design			2	2		Memory Device Technology			3	3
Elective Courses						Elective Courses						Elective Courses	Computer-Assisted lighting system design			3	3
													Optical Factory			3	3
													Silicon Nano-device Detection and Analysis			3	3
													Chromatics			3	3
													Optoelectronic Device and Application			3	3
													Optoelectronic Semiconductor Manufacturing Technology			3	3
													Digital Logic Design			3	3
													Python Application			3	3
													Solar Photovoltaic Technology			3	3
													Machine Learning			3	3
													Smart Industry and Manufacturing			3	3

Year		114		115	
		FEB 2026		SEP 2026	
Course		Cr.	hr.	Cr.	hr.
MUST Core Required Courses					
	Subtotal	0	0	0	0
School Professional Required Courses					
	Subtotal	0	0	0	0
Compulsory Courses					
	Subtotal	0	0	0	0
Elective Courses	Lab of Property Practice(III)(IV)	9	32	9	32
	Project of Optoelectronics	3	3		
	Solar Photovoltaic Technology	3	3		
	Optoelectronic Detection	3	3		
	Chromatics	3	3		
	Artificial Intelligence-Deep Learning	3	3		
	Labview Programming Design	3	3		
	Python Program Application	3	3		
	Machine Learning with Python	3	3		
	Generative AI and Applications	3	3		
	spectral analysis	3	3		
	Project of Optoelectronics			3	3
	Creative Design in Optoelectronics			3	3
	Nano Bio-Photonics			3	3
	Technology of Organic Light-Emitting Diode Display			3	3

Cr./hr.=Credit/hour

Remarks:

1. Minimum credits required for graduation: 128 credits including 84 compulsory credits, and at least 44 elective credits (including the interdepartmental elective credits).
2. Inter-departmental elective credits are transferable. Professional elective course credits shall not be fewer than 32.
3. Students should take off-campus internship courses, Lab of Property Practice(I)(II)(III)(IV), and the relevant measures are handled in accordance with the Implementation of Off-campus Internship Teaching for Students in the Department of Semiconductor and Electro-Optical Technology.
4. Off-campus practice courses : Lab of Property Practice (I)(II)(III)(IV), 1 credit requires no more than 80 hours. The actual internship hours for Lab of Property Practice(I)(II) are 36 to 40 hours per week, and the actual internship hours for Lab of Property Practice (III) and (IV) are 32 to 40 hours per week.
5. The elective courses listed in the tables are subject to adaptation when necessary.



半導體系課程
規劃委員1

系主任 陳炳茂

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