

MUST Curriculum Planning for Undergraduate Students for Academic Years 2024-2027,
Department of Semiconductor and Electro-Optical Technology

1st year(2024)					2nd year(2025)					3rd year(2026)									
	Course	1st semester		2 nd semester			Course	1st semester		2 nd semester			Course	1st semester		2 nd semester			
		Cr.	hr.	Cr.	hr.			Cr.	hr.	Cr.	hr.			Cr.	hr.	Cr.	hr.		
MUST Core Required Courses	Classified general Education	2	2	2	2	MUST Core Required Courses	Classified general Education	2	2	2	2	MUST Core Required Courses							
	Classified general Education	2	2	2	2														
	Physical Education	2	2	2	2														
	Subtotal	6	6	6	6		Subtotal	2	2	2	2		Subtotal						
School Professional Required Courses	Technical English(I)(II)	2	2	2	2	School Professional Required Courses	Applied English(III)(IV)	2	2	2	2	School Professional Required Courses							
	Applied Chinese(I)(II)	2	2	2	2														
	Calculus(I)(II)	3	3	3	3														
	Physics and Physics Laboratory	2	2																
	Chemistry and Laboratory	2	2																
	Introduction to Programming	2	2																
	Subtotal	13	13	9	9		Subtotal	2	2	2	2		Subtotal						
Compulsory Courses	Vector Analysis	3	3			Compulsory Courses	Electromagnetic(I)(II)	2	2	2	2	Compulsory Courses	Special Topics Practice	1	1	1	1		
	Basic Electricity and Electricity Experiment			2	2			Engineering Mathematics(I)(II)	3	3	3		3		Optoelectronic Lab(II)	2	2		
	Introduction to Semiconductors and Optoelectronics			2	2			Applied Electronics	2	2					Semiconductor Manufacturing Technology	3	3		
	Basic Electronics			2	2			Electronics Lab(II)	3	3					Ethics for Engineers			2	2
	Electronics Lab(I)			3	3			Introduction to Modern Physics	3	3					Laser Engineering			2	2
	Introduction to Materials			2	2			Mechanism of Optoelectronic System	2	2					Semiconductor Lab			3	3
								Geometrical Optics			2		2						
								Optoelectronic Lab(I)			2		2						
								Semiconductor Materials and Devices					3	3					
		Subtotal	3	3	11		11		Subtotal	15	15		12	12		Subtotal	6	6	8
Elective Courses	Introduction to Semiconductor and Optoelectronic Industry	1	1			Elective Courses	Programming Language	2	2			Elective Courses	Certification of Solid Design CAD and License Counseling	2	2				
	Basic Circuit Theory	2	2					Vacuum Technology	2	2					Computer-aided Optical System Design	2	2		
	Photoelectric Drawing and modeling			2	2			CAD of Solid Design			2		2		Graphical Programming Language Design	2	2		
	Electronic Circuit and License Counseling			2	2			Material Science and Engineering			2		2		Practice of Digital Circuits	2	2		
								Introduction to Bio-Medicine			2		2		Green Energy Photoelectric Laboratory	2	2		
								Integrated-Circuits Engineering			2		2		Thin Film Technology	2	2		
															Solid State Lighting and License Counseling	2	2		
															Wave Optics	2	2		
															Optoelectronic Material & Device Physics	2	2		
															Materials Analysis			3	3
															Computer-aided Illumination System Design			2	2
															Applied Circuits in Optoelectronics			2	2
															Flat Panel Display			3	3
															Optoelectronic Device and Application			2	2
															Chromatics			2	2
												Optical Thin Film and Coating Technology			2	2			
												Optoelectronic Detection Engineering			2	2			
												Introduction to Optical Microelectromechanical System			2	2			
												Semiconductor biomedical chip			2	2			
												Solar Photovoltaic Technology			3	3			

4th year(2027)					
	Course	1st semester		2 nd semester	
		Cr.	hr.	Cr.	hr.
MUST Core Required Courses					
	Subtotal				
School Professional Required Courses					
	Subtotal				
Compulsory Courses	Off-Campus Practice Training	9	9		
	Subtotal	9	9	0	0
Elective Courses	Design and Operation of TFT-LCD Panels	3	3		
	Creative Design in Optoelectronics	3	3		
	Liquid Crystal Materials and Optic	3	3		
	Computer-Assisted Design of Optical Thin Films	3	3		
	The Measurement of Semiconductors	3	3		
	Micro Opto Electro Mechanical Device and System	3	3		
	Off-Campus Practice Training			9	9
	Sluar-Cell-Driven LED Display			3	3
	Technology Management			3	3
	Semiconductor Material Analysis			3	3
	Nano Bio-photonics			3	3
	Technology of Organic Light-Emitting Diode display			3	3
Projection Display Technology			3	3	

Cr./hr.=Credit/hour

【Remarks】

1. Minimum graduation credits: 128 credits, including 22 elective credits (at least 13 credits for this major, the rest can be other departments).
2. The first, second, and third grade, students must take 16-30 credits each semester, and 9-30 credits each semester in the 4th grade.
3. Elective courses for listed are subject to change if necessary.
4. According to university regulations, students are required to meet the graduation requirement of basic proficiency and professional skills.
5. For off-campus internship courses, please follow the relevant implementation regulations.
6. Students having graduated from a foreign country, including Hong Kong and Macau, with the equivalent study of the sophomore level of the ROC's high school, or with a high school equivalent degree, who are studying for a bachelor's degree, the minimum graduation credits are 140, and the study period can be extended by 3 academic years.

半導體系課程
規劃委員1

半導體與光電科技系
系主任陳炳茂

