

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

1st year(2023)					2nd year(2024)					3rd year(2025)										
	Course	1st semester		2nd semester			Course	1st semester		2nd semester			Course	1st semester		2nd 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															
	<b>Subtotal</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>		<b>Subtotal</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>		<b>Subtotal</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>			
School Professional Required Courses	Technical English(I)(II)	2	2	2	2	School Professional Required Courses	Technical English(III)(IV)	2	2	2	2	School Professional Required Courses								
	Applied Chinese(IX)(II)	2	2	2	2															
	Calculus( I X II )	3	3	3	3															
	Chemistry and Laboratory	2	2																	
	Physics and Physics Laboratory	2	2																	
	Introduction to Computers and Programming	2	2																	
	Introduction to Artificial Intelligence			2	2															
	<b>Subtotal</b>	<b>13</b>	<b>13</b>	<b>9</b>	<b>9</b>		<b>Subtotal</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>		<b>Subtotal</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>			
Compulsory Courses	Introduction to Semiconductors and Optoelectronics			2	2	Compulsory Courses	Electromagnetic(IX)(II)	2	2	2	2	Compulsory Courses	Project of Semiconductor and Optoelectronics	1	1	1	1			
	Basic Electronics			2	2			Engineering Mathematics(IX)(II)	3	3	3		3		Optoelectric Lab(II)	2	2			
	Electronics Lab(I)			3	3			Applied Electronics	2	2				Semiconductor Manufacturing Technology	3	3				
	Introduction to Materials			2	2			Electronics Lab(II)	3	3				Ethics for Engineers			2	2		
								Introduction to Modern Physics	3	3				Laser Engineering			2	2		
								Geometrical Optics			2		2							
								Optoelectric Lab(I)			2		2							
	<b>Subtotal</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>9</b>		<b>Subtotal</b>	<b>13</b>	<b>13</b>	<b>12</b>	<b>12</b>		<b>Subtotal</b>	<b>6</b>	<b>6</b>	<b>5</b>	<b>5</b>			
Elective Courses	Introduction to Semiconductor and Optoelectric 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			
	Vector Analysis	3	3					Mechanism of Optoelectronic System	2	2					Graphical Programming Language Design	2	2			
	Chinese Proficiency Test Preparation (I)	2	2					CAD of Solid Design			2		2			Practice of Digital Circuits	2	2		
	Chinese Grammar and Writing	2	2					Graphical Programming Language Design			2		2			Thin Film Technology	2	2		
	Basic Electricity and Electricity Experiment			2	2			Introduction to Bio-Medicine			2		2			Solid State Lighting	2	2		
	Photoelectric Drawing and modeling			2	2											Wave Optics	2	2		
	Electronic Circuit and License Counseling			2	2											Optoelectronic Material & Device Physics	2	2		
	Chinese Proficiency Test Preparation (II)			2	2											Semiconductor Lab			3	3
																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			

4th year(2026)					
	Course	1st semester		2nd semester	
		Cr.	hr.	Cr.	hr.
MUST Core Required Courses					
	<b>Subtotal</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
School Professional Required Courses					
	<b>Subtotal</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Compulsory Courses	Off-campus internship	9	9		
	<b>Subtotal</b>	<b>9</b>	<b>9</b>	<b>0</b>	<b>0</b>
Elective Courses	Off-campus internship			9	9
	Design and Operation of TFT-LCD Panels	3	3		
	Creative Design in Optoelectronics	3	3		
	Liquid Crystal Materials and Optic	3	3		
	Solar Photovoltaic Technology	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		
	Solar-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 32\_ elective credits (at least 23\_ 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.

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

