

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	Physical Education	1	2	1	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	5	6	5	6		Subtotal	4	4	2	2		Subtotal	0	0	0	0
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	Ethics for Engineers			2	2
	Applied Chinese(I)(II)	2	2	2	2												
	Calculus (I)(II)	3	3	3	3												
	Chemistry and Laboratory	2	3														
	Physics and Physics Laboratory	2	3														
	Introduction to Computers and Programming	2	2														
	Basic Electricity and Electricity Experiment			2	3												
	Introduction to Artificial Intelligence			2	2												
	Subtotal	13	15	11	12		Subtotal	2	2	2	2		Subtotal	0	0	2	2
Compulsory Courses	Vector Analysis	3	3			Compulsory Courses	Electromagnetic(I)(II)	3	3	2	2	Compulsory Courses	Project of Optoelectronics-capstone	1	1	1	1
	Optics			2	2		Engineering Mathematics(I)(II)	3	3	3	3		Optoelectric Lab(II)	2	3		
	Basic Electronics			2	2		Applied Electronics	2	2				Semiconductor Manufacturing Technology	3	3		
	Electronics Lab(I)			1	3		Electronics Lab(II)	1	3				Laser Engineering			2	2
	Introduction to Materials			2	2		Introduction to Modern Physics	3	3				Semiconductor Lab			2	3
							Mechanism of Optoelectronic System	2	2								
							Geometrical Optics			2	2						
							Optoelectric Lab(I)			2	3						
							Semiconductor Materials and Devices			3	3						
		Subtotal	3	3	7		9		Subtotal	14	16		12	13		Subtotal	6
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		
	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		
													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			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			

4th year(2026)					
	Course	1st semester		2nd semester	
		Cr.	hr.	Cr.	hr.
MUST Core Required Courses					
	Subtotal	0	0	0	0
School Professional Required Courses					
	Subtotal	0	0	0	0
Compulsory Courses	Off-campus internship	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		
	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		
	Off-campus internship			9	9
	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:

- 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: 102 credits. Elective credits: 26 credits (elective credits include inter-departmental elective credits); the elective credits for majors in the department must not be lower than 14 credits.
- 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 38 compulsory credits, and at least 26 elective credits (including inter-departmental elective credits), while elective professional course credits shall not be fewer than 14 credits. 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 Semiconductor and Electro-Optical Technology.
- Elective courses are subject to change if necessary.