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

1st year

	Course	FEB 2024 Cr.	FEB 2024 hr.	SEP 2024 Cr.	SEP 2024 hr.
MUST Core Required Courses	Physical Education	1	2	1	2
	Classified general Education	2	2	2	2
	Classified general Education	2	2	2	2
	Subtotal	**5**	**6**	**5**	**6**
School Professional Required Courses	Technical English(I)(II)	2	2	2	2
	Applied Chinese(I)(II)	2	2	2	2
	Calculus(I)(II)	3	3	3	3
	Physics and Physics Laboratory	2	3		
	Chemistry and 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**
Compulsory Courses	Optics			2	2
	Basic Electronics			2	2
	Electronics Lab(I)			1	3
	Subtotal	**0**	**0**	**5**	**7**
Elective Courses	Introduction to Semiconductor and Optoelectric Industry	1	1		
	Basic Circuit Theory	2	2		
	Vector Analysis	3	3		
	Chinese Proficiency Test Preparation (I)	2	2		
	Chinese Grammar and Writing	2	2		
	Introduction to Materials			2	2
	Photoelectric Drawing and modeling			2	2
	Electronic Circuit and License Counseling			2	2
	Chinese Proficiency Test Preparation (II)			2	2

2nd year

	Course	FEB 2025 Cr.	FEB 2025 hr.	SEP 2025 Cr.	SEP 2025 hr.
MUST Core Required Courses	Classified general Education	2	2	2	2
	Classified general Education	2	2		
	Subtotal	**4**	**4**	**2**	**2**
School Professional Required Courses	Technical English(III)(IV)	2	2	2	2
	Subtotal	**2**	**2**	**2**	**2**
Compulsory Courses	Electromagnetic(I)(II)	3	3	2	2
	Engineering Mathematics(I)(II)	3	3	3	3
	Applied Electronics	2	2		
	Electronics Lab(II)	1	3		
	Introduction to Modern Physics	3	3		
	Geometrical Optics			2	2
	Optoelectric Lab(I)			2	3
	Semiconductor Materials and Devices			3	3
	Subtotal	**12**	**14**	**12**	**13**
Elective Courses	Programming Language	2	2		
	Vacuum Technology	2	2		
	Mechanism of Optoelectronic System	2	2		
	CAD of Solid Design			2	2
	Graphical Programming Language Design			2	2
	Introduction to Bio-Medicine			2	2

3rd year

	Course	FEB 2026 Cr.	FEB 2026 hr.	SEP 2026 Cr.	SEP 2026 hr.
MUST Core Required Courses					
	Subtotal	**0**	**0**	**0**	**0**
School Professional Required Courses	Ethics for Engineers			2	2
	Subtotal	**0**	**0**	**2**	**2**
Compulsory Courses	Project of Semiconductor and Optoelectronics	1	1	1	1
	Optoelectric Lab(II)	2	3		
	Semiconductor Manufacturing Technology	3	3		
	Laser Engineering			2	2
	Subtotal	**6**	**7**	**3**	**3**
Elective Courses	Certification of Solid Design CAD and License Counseling	2	2		
	Computer-aided Optical System Design	2	2		
	Graphical Programming Language Design	2	2		
	Practice of Digital Circuits	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		
	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

4th year

	Course	FEB 2027 Cr.	FEB 2027 hr.	SEP 2027 Cr.	SEP 2027 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	Off-campus internship (I)(II)	9	9	9	9
	Project of Semiconductor and Optoelectronics(I)(II)	3	3	3	3
	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		
	Sloar-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. According to university regulations, students are required to meet the graduation requirement of basic language proficiency and professional skills.
2. In the first three years, students must take 16-30 credits per semester, and 9-30 credits per semester in the 4th year.
3. Minimum graduation credits: 128 credits; Compulsory credits: 84 credits. Elective credits: 44 credits (elective credits include inter-departmental elective credits); the elective credits for majors in the department must not be lower than 32 credits.
4. 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_".
5. Elective courses are subject to change if necessary.

半導體系課程規劃委員 1

學校財團法人明新科技大學 半導體與光電科技系 MUST

半導體與光電科技系 系主任 陳炳茂

半導體學院 院長 張合