

**MUST Curriculum Planning for Graduate Students for Academic Year 2025,
Institute of Ph.D. Program in Semiconductor Technology**

1 st year(114)					2 nd year(115)					3 rd year(116)								
	Course	1 st semester		2 nd semester			Course	1 st semester		2 nd semester			Course	1 st semester		2 nd semester		
		Cr.	hr.	Cr.	hr.			Cr.	hr.	Cr.	hr.			Cr.	hr.	Cr.	hr.	
MUST Core Required Courses						MUST Core Required Courses						MUST Core Required Courses	Internship of Practical Technology Research and	2		2		
														Doctoral Dissertation(I)/(II)	3		3	
	Subtotal	0	0	0	0		Subtotal	0	0	0	0		Subtotal	5		5		
School Professional Required Courses	Semiconductor Technology Seminar(I)/(II)	1	2	1	2	School Professional Required Courses						School Professional Required Courses						
	Subtotal	1	2	1	2		Subtotal	0	0	0	0		Subtotal	0	0	0	0	
Compulsory courses	Semiconductor Engineering(I)/(II)	3	3	3	3	Compulsory courses						Compulsory courses						
	Subtotal	3	3	3	3		Subtotal	0	0	0	0		Subtotal	0	0	0	0	
Elective Courses	Nanotechnology	3	3			Elective Courses	Semiconductor Process Integration	3	3			Elective Courses						
	Semiconductor Processings Technology	3	3				Wide Bandgap Semiconductor Measurement and Analysis Technology	3	3									
	Solid state Physics	3	3				Power Diodes Devices	3	3									
	Semiconductor Materials	3	3				Spectral Analysis	3	3									
	Solar Photovoltaic Technology	3	3				Special Topics on Semiconductor Processings			3	3							
	Integrated Circuit Testing	3	3				Semiconductor Processings Lab.			3	3							
	Semiconductor Packaging Technology	3	3				Optical Detection Technology			3	3							
	Patent Search and Writing	3	3				Thin Films Measurement Technology			3	3							
	Physics of Semiconductor Devices			3	3		Semiconductor Bio-Medical Chip			3	3							
	Characterization of Materials			3	3													
	Devices Processings technology and Reliability			3	3													
	Semiconductor Packaging and Testing Practice			3	3													
	Optoelectric Materials and Devices			3	3													
	Big Data and Statistical Analysis Practice			3	3													
	Special topics on Nano-Materials and Fabrication			3	3													

4 th year(117)					
	Course	1 st semester		2 nd semester	
		Cr.	hr.	Cr.	hr.
MUST Core Required Courses	Internship of Practical Technology Research and Development(III)/(IV)	2		2	
	Doctoral Dissertation(III)/(IV)	3		3	
	Subtotal	5		5	0
School Professional Required Courses					
	Subtotal	0	0	0	0
compulsory courses					
	Subtotal	0	0	0	0
Elective Courses					

Remarks:

- Please refer to the "Implementation Guidelines for Student Basic Competencies and Graduation Thresholds" of Ming-Hsin University of Sci. & Tech.
- The minimum Graduation Credits are 46 credits which included 18 credits of professional electives (at least 9 credits must be from this Ph.D. degree program).
- Students in this Ph.D. program must take one course related to English proficiency training from the master's program in the university (excluding professional courses), but it will not count into graduation credits.
- During the third and the fourth years, students must take "Corporate Practice R&D" courses for a total of 8 credits in 4 semesters, Which are required to engage in research and development work at the related industry or corporate institution in order to complete ones thesis. While taking "Corporate Practice R&D" course, students are not allowed to take other courses, except those for "Doctoral Thesis", "Special Topics Discussions", and additional professional courses required for the Doctoral candidacy qualification review.
- The minimum credits per Semester is 1 credit.
- "Doctoral Thesis" is a mandatory 12 credits, awarded once after passing the oral examination.
- The listed elective courses are for reference only and may be adjusted based on actual situation.
- This form created on 2025/02/15.



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