

111學年度日間部 機械工程系 國際學生產學合作專班課程規劃表

第一學年(111)					第二學年(112)					第三學年(113)							
	科目	上學期		下學期			科目	上學期		下學期			科目	上學期		下學期	
		學分	時數	學分	時數			學分	時數	學分	時數			學分	時數	學分	時數
校 必 修	體育	2	2	2	2	校 必 修					校 必 修	台灣生活與法律	2	2			
	漢語拼音發音練習	1	2									台灣社會	2	2			
	華語聽力練習	1	2									台灣文化			2	2	
	華語會話練習	1	2									台灣藝術			2	2	
	華語閱讀與理解	1	2														
	華語寫作練習	1	2														
	華語輔導	0	5														
	華人文學			3	3												
	華人文化			3	3												

第四學年(114)					
	科目	上學期		下學期	
		學分	時數	學分	時數
校 必 修					
	小計				
院 必 修					
	小計				
專 業 必 修					
	小計	0	0	0	0
專 業 選 修	產業實務實習(三)(四)	9	40	9	40
	系統化創新方法概論	3	3		
	CAD/CAM實務應用	3	3		
	逆向工程技術	3	3		
	熱學工程應用	3	3		
	人工智慧-深度學習	3	3		
	平面顯示器原理與製程實作	3	3		
	圖控程式設計	3	3		
	Python程式應用	3	3		
	Python與機器學習	3	3		
	生成式人工智慧與應用	3	3		
	光譜分析與實作	3	3		
	工程專業術語實務	3	3		
	機械設計實務	3	3		
	視覺光學			3	3
	電腦輔助光學系統設計			3	3
	實體設計工程			3	3
	風力發電發展概論			3	3
	焊接技術			3	3
	電腦輔助製造			3	3
	機械大數據概論			3	3

注意事項：

- 1.最低畢業學分：128學分；必修學分：92學分
選修學分：36學分（選修學分含跨系選修學分）
- 2.學生應修習華語輔導課程(0學分5小時)，並於第一學年上學期實施。
- 3.本系允許跨系選修學分，為本系專業選修學分不得低於21學分。
- 4.校外實習課程：產業實務實習(一)(二)(三)(四)，一學分至多80小時校外實習課程。
產業實務實習(一)、(二)實際實習時數每週32~36小時，產業實務實習(三)、(四)實際實習時數每週32~40小時。
- 5.表列選修課程僅供參考，依實際狀況調整。

課務會議:115/6/15修訂通過

院務會議:115/6/18修訂通過

教務會議:115/7/1修訂通過

MUST Curriculum Planning for Undergraduate Students of Academic Year 2022-2025, Department of Mechanical Engineering																	
1 st year(111)						2 nd year(112)						3 rd year(113)					
	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	Physical Education	2	2	2	2	MUST Core Required Courses					MUST Core Required Courses	Taiwanese Classified General Education	2	2			
	Chinese Pinyin Pronunciation Practice	1	2									Taiwanese Society	2	2			
	Chinese Listening Practice	1	2									Taiwanese Culture			2	2	
	Chinese Conversation Practice	1	2									Taiwanese Art			2	2	
	Chinese Reading and Practice	1	2														
	Chinese Writing Practice	1	2														
	Chinese Language Counseling	0	5														
	Chinese literature			3	3												
	Chinese culture			3	3												
	Subtotal	7	17	8	8		Subtotal						Subtotal	4	4	4	4
School Professional Required Courses	Technical / Business English(I)	2	2			School Professional Required Courses					School Professional Required Courses	Technical / Business English(II)	2	2			
	Technical / Business English(II)			2	2							Technical / Business English(IV)			2	2	
	Subtotal	2	2	2	2		Subtotal						Ethics for Engineers			2	2
Department compulsory courses	Career ethics and Factory affairs introduction	3	3			Department compulsory courses	Industrial Practice (I)	9	9		Department compulsory courses	Physics	2	2			
	Mechanical Concept and Mechanical Drawing	3	3				Industrial Practice (II)			9		9	Applied Mathematics	3	3		
	Machining Practice (II)			3	3							Computer Aided Mechanical Drafting	3	3			
	Fluid Thermal Practice and Experiment			3	3							Machining Practice (II)	3	3			
												Mechanical Materials	3	3			
												Introduction to Programming	3	3			
												Introduction to Artificial Intelligence			3	3	
												Introduction to Mechatronics			2	2	
												Design of Machine Elements			3	3	
												Electronics Practice			2	2	
										Thermodynamics			2	2			
										Automatic Control Practice			3	3			
										Subtotal	17	17	15	15			
Department Elective Courses	Dimensioning system	3	3			Department Elective Courses					Department Elective Courses	Precision Instrument and Parts Inspection	3	3			
	Introduction to Plastic Material	3	3									Mechanics of Materials	3	3			
	Introduction to Tooling engineering	3	3									Electronics	3	3			
	Applied Mechanics (Statics)			3	3							Plastic Products Design and Analysis	3	3			
	Manufacturing Processes			3	3							Plastic Materials Selection and Application	3	3			
												High Speed Cutting and CAM Application	3	3			
												Systematic Innovation Method	3	3			
												Design Thinking			3	3	
												CNC Machine Tools Practice			3	3	
												Pneumatic Control Technology			3	3	
									Quality Management			3	3				
										Mechatronics and Practice			3	3			
										Robotic Engineering			3	3			
										Trouble shooting of plastic injection molding			3	3			

4 th year(114)					
	Course	1 st semester		2 nd semester	
		Cr.	hr.	Cr.	hr.
MUST Core Required Courses					
	Subtotal				
School Professional Required Courses					
	Subtotal				
Department compulsory courses					
	Subtotal	0	0	0	0
Department Elective Courses	Industrial Practice (III)	9	40		
	Industrial Practice (IV)			9	40
	Introduction to Systematic Innovation Method	3	3		
	The Application of CAD/CAM	3	3		
	Technology in Reverse Engineering	3	3		
	Application in Thermo Engineering	3	3		
	Artificial Intelligence-Deep Learning	3	3		
	Principles of Flat-Panel Displays and Practice	3	3		
	Labview Programming Design	3	3		
	Python Program Application	3	3		
Department Elective Courses	Machine Learning with Python	3	3		
	Generative AI and Applications	3	3		
	Spectral Analysis Practice	3	3		
	Engineering terminology	3	3		
	Practices of Mechanical Design	3	3		
	Vision Optics			3	3
	Computer-Aided Optical System Design			3	3
	Engineering of Solid Design CAD			3	3
	Wind Power Generation Technology			3	3
	Welding Technology			3	3
Department Elective Courses	Computer-Aided Manufacturing			3	3
	Introduction to big data science on mechanical engineering			3	3

Cr./hr.=Credit/hour

Remarks:

- 1.Minimum credits required for graduation: 128 credits including 92 compulsory credits, and at least 36 elective credits(including the interdepartmental elective credits).
- 2.Undergraduate students shall take 5-hour chinese tutoring courses (0 credits) in the first semester of the second academic year.
- 3.Inter-departmental elective credits are transferable. Professional elective course credits shall not be fewer than 21.
- 4.The off-campus internship courses include: Industry Practice Internship (I), (II), (III), (IV), with a maximum of 80 hours of off-campus internship for one credit. Industry Practice Internship (I) and (II): The actual internship hours range from 32 to 36 hours per week. Industry Practice Internship (III) and (IV): The actual internship hours range from 32 to 40 hours per week.

5.The elective courses listed in the tables are subject to adaptation when necessary.

課務會議:115/6/15修訂通過
院務會議:115/6/18修訂通過
教務會議:115/7/1修訂通過