

遠東科技大學 四年制 機械工程系 日間部 課程規劃表(適用112學年度入學)
Far East University Curriculum of Mechanical Engineering Department for Four-Year Bachelor's Degree Program
-Day Division (Effective from Fall 2023)

科目名稱 Subject		第一學年 1st school year				第二學年 2nd school year				第三學年 3rd school year				第四學年 4th school year			
		上學期 1st semester		下學期 2nd semester		上學期 1st semester		下學期 2nd semester		上學期 1st semester		下學期 2nd semester		上學期 1st semester		下學期 2nd semester	
		學分 Credits	時數 Hours	學分 Credits	時數 Hours	學分 Credits	時數 Hours	學分 Credits	時數 Hours	學分 Credits	時數 Hours	學分 Credits	時數 Hours	學分 Credits	時數 Hours	學分 Credits	時數 Hours
校訂課程 Stipulated Courses	通識 基礎 必修 Required General Education Courses	國文(1)(2) Chinese (1) (2)	2/ 2	2/ 2													
		英文聽力與閱讀(1)(2) English Listening and Reading(1)(2)	2/ 2	2/ 2													
		體育(1)(2)(3) Physical Education(1)(2)(3)	2/ 2	2/ 2	2/ 2												
		服務教育與大學社會責任(1)(2) Service Education and University Social Responsibility (1)(2)	1/ 1	1/ 1													
		小計Subtotal	7/ 7	7/ 7	2/ 2	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
		通識博 雅必修 Required Liberal Arts Courses	創意思考與AI智慧生活 Creative Thinking and AI Smart Living		2/ 2												
	倫理與品格 Ethics and Character Education				2/ 2												
	科學與自然、人文與社會 Science and Nature, Humanities and Social Sciences						2/ 2	2/ 2	2/ 2								
	創意實作 Innovations and Implementations															2/ 2	
	公民教育 Citizenship Education															2/ 2	
	小計Subtotal		0/ 0	2/ 2	2/ 2	2/ 2	2/ 2	2/ 2	2/ 2	2/ 2	2/ 2	0/ 0	4/ 4				
	一般 選修 General Elective Courses	英文閱讀與寫作 English Reading and Writing			2/ 2												
		體育(4) Physical Education(4)					2/ 2										
		全民國防教育軍事訓練(1)(2)(3)(4) National Defense Education and Military Training (1)(2)(3)(4)	2/ 2	2/ 2	2/ 2	2/ 2											
		人文與創意跨域學習 Interdisciplinary of Humanities and Creativities Learning			2/ 2	2/ 2	2/ 2	2/ 2	2/ 2	2/ 2	2/ 2	2/ 2	2/ 2				
		小計Subtotal	2/ 2	2/ 2	6/ 6	6/ 6	2/ 2	2/ 2	2/ 2	2/ 2	2/ 2	2/ 2	0/ 0				
		院必修 課程 Required College Courses	微積分 Calculus	3/ 3													
	物理 Physics		3/ 3														
	電腦軟體應用 Computer Software Application			2/ 2													
	職場倫理 Employment Ethics			2/ 2													
	半導體概論 Introduction of Semiconductor					2/ 2											
小計Subtotal	6/ 6		4/ 4	0/ 0	2/ 2	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	
	工程概論 Introduction of Engineering		1/ 1														
	圖學與電腦繪圖 Graphics and Computer Graphics		3/ 3														
	機械製造 Manufacturing Engineering		3/ 3														
	程式設計 Programming Design		3/ 3														

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專業必修課程 Professional Required Courses	系必修課程 Required Department Courses	數控工具機與實習 Computer Numerical Control Machine Tools and Practice					3/ 3											
		工程力學與實驗 Engineering Mechanics and Experiment					3/ 3											
		可程式控制實習 Programmable Logic Controller Practice					3/ 3											
		機械材料與實驗 Mechanical Material and Test						3/ 3										
		感測器原理與應用 Application and Theory of Sensor						2/ 2										
		機械設計 Design of Machine Elements								3/ 3								
		熱流概論與實驗 Introduction to Heat and Fluid and Experiment								3/ 3								
		氣液壓學與實習 Introduction and Practice of Pneumatics and Hydraulics								3/ 3								
		實務專題(1)(2) Project(1)(2)								1/ 3	1/ 3							
		機電整合實習 Practice of Mechatronic									3/ 3							
		小計Subtotal		4/ 4		6/ 6		9/ 9		5/ 5		10/ 12		4/ 6		0/ 0		0/ 0
		製造技術與維護課程 Manufacturing Technology and Maintenance Course Module	工廠實習 Factory Practice	3/ 3														
			電腦輔助立體製圖 Computer-Aided 3D Drawing			3/ 3												
			精密量測與實習 Theory and Practice of Precision Measurement					3/ 3										
熱處理與實習 Heat Treatment and Practice							2/ 2											
冷凍空調原理與實務 Principle and Practice of Refrigeration and Air Conditioning									3/ 3									
車銑複合加工實務 Milling and Turning Compound Processing										3/ 3								
電腦輔助製造 Computer Aided Manufacturing											3/ 3							
模具設計實務 Mold Design Practice															3/ 3			
小計Subtotal			3/ 3		3/ 3		3/ 3		2/ 2		3/ 3		3/ 3		3/ 3		3/ 3	
系專業選 Automation Practice Course Module	電工學與實習 Electric Machinery and Practice		3/ 3															
	數位邏輯與實習 Digital Logic Design and Practice					3/ 3												
	自動控制與實習 Automatic Control and Experiment						3/ 3											
	微控器應用與實習 Microcontroller Application and Practice								3/ 3									
	氣壓順序控制與實習 Pneumatic Sequential Control and Practice									3/ 3								
	智慧生活應用與實習 Application and Practice of Smart life										3/ 3							
	小計Subtotal											3/ 3						

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修 課程 Professional Elective Courses	電腦監控應用與實習 PC-Based Control Application and Practice													3/ 3			
	工業影像檢測與實習 Practice of Industrial Image Inspection													3/ 3			
	機器人應用與實習 Application and Practice of Manipulator														3/ 3		
	小 計Subtotal	3/ 3		0/ 0		3/ 3		3/ 3		3/ 3		6/ 6		6/ 6		3/ 3	
其他 Others	機構學 Mechanism					3/ 3											
	工程數學 Engineering Mathematics					3/ 3											
	材料力學 Mechanics of Materials						3/ 3										
	創意性機構設計與實習 Creative Mechanism Design and Practice									3/ 3							
	半導體製程 Semiconductor Process									3/ 3							
	材料機械性質 Mechanical Property of Materials													3/ 3			
	模流分析實務 Molding Flow Analysis and Practice													3/ 3			
	學期校外實習 Off-Campus Internship													9/			
	專利與工程創新 Patents and Engineering Innovation															2/ 2	
	產業校外實習 Off-Campus Industrial Internship															9/	
	電腦輔助工程分析 Computer-Aided Engineering Analysis															3/ 3	
	小 計Subtotal	0/ 0		0/ 0		2/ 2		3/ 3		3/ 3		3/ 3		15/ 6		14/ 5	
	合 計Total		3/ 3		3/ 3		6/ 6		7/ 7		6/ 6		9/ 9		9/ 9		5/ 5
112年05月23日 校課程發展委員會會議通過Amended Date : 2023-05-23																	

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備註
Note

一、畢業總學分至少128學分：
The total number of credits completed to be eligible to graduate shall not be less than 128 credits.

1.校訂必修30學分(含通識基礎必修16學分、通識博雅必修14學分)。
The stipulated compulsory credits shall be 30 credits.(16 credits for required general education courses, and 14 credits for required liberal arts courses.)

2.專業必修50學分(院必修12學分、系必修38學分)。
The professional compulsory credits shall be 50 credits.(12 credits for required college courses, and 38 credits for required department courses.)

3.系專業選修至少26學分。
The professional elective credits shall be not less than 26 credits.

4.跨系選修至少9學分。
The number of inter-department elective credits shall be not less than 9 credits.

※「微學分課程」最多採計12學分。
The number of 'Micro-Credit Courses' credits shall be up to 12credits.

二、畢業門檻：Graduation Threshold

1.學生於修業年限內，應修畢「校訂必修」、「專業必修」、「系專業選修」、「跨系選修」共計128學分。
Students are required to complete a total of 128 credits of "Stipulated Compulsory Course", "Professional Compulsory Course", "Department Professional Elective Course", and "Inter-College Elective Courses" within their academic years.

2.系專業能力門檻(遠東科技大學機械工程系畢業門檻實施要點辦理)。
Department Professional Threshold (Far East University Regulations of Graduation Threshold of Mechanical Engineering Department)

3.英文能力門檻(遠東科技大學輔導學生取得英檢證照實施辦法辦理)。
English Proficiency Threshold (Far East University Regulations of Tutoring Students to Get English Proficiency Certificates)

三、校訂課程：Stipulated Courses

1.校訂課程不須依先後順序修課，不得互抵者，包括「國文(1)(2)、英文聽力與閱讀(1)(2)、體育(1)(2)(3)(4)」課程。
Stipulated courses are not required to be taken in sequence and the credits shall not be mutually transferred, including "Chinese (1) (2), English listening and reading (1) (2), and physical education (1) (2) (3) (4)" courses.

2.校訂課程不須依先後順序修課，得互抵者，僅為「服務教育與大學社會責任(1)(2)」課程。
Stipulated courses are not required to be taken in sequence and those that may be mutually complemented by each other may be only "Service Education and University Social Responsibility (1) (2)".

3.校訂課程不須依先後順序修課，包括「全民國防教育軍事訓練(1)(2)(3)(4)課程」。
Stipulated courses are not required to be taken in sequence, including National Defense Education.

4.「創意思考與AI智慧生活」、「倫理與品格」課程在一年級下學期、二年級上學期開課，得依實際情形上下學期調整。「倫理與品格」課程含括環境倫理、生命倫理及性別倫理三門，依實際情形排定一門，學生擇一修課即可。
Creative Thinking and Training and AI Smart Life shall be offered at the second semester of the freshman and at the first semester of the sophomore year and be adjusted based on the actual situation in the first and second semesters. Ethics and Character Education includes three courses: environmental ethics, bioethics, and gender ethics. Each course may be arranged according to the actual situation, and students shall choose one course.

5.「人文與創意跨域學習」依實際情形排定一門課程。
"Interdisciplinary Learning of Humanities and Creativity" shall be offered according to the actual situation.

四、專業課程：Professional Courses:

1.「實務專題(1)(2)」課程應依先後順序修課，得互抵。
Project(1)(2) shall be taken in sequence and may complement each other.