## 國立勤益科技大學日間部<u>110</u>學年度精密製造科技研究所 <u>博士班</u>學分計畫表 National Chin-Yi University of Technology

## Curriculum for 2021, Ph.D. Program, Graduated Institute of Precision Manufacturing

110.5.3 所課程會議審議通過 110.5.3 所務會議審議通過 110.05.18.院課程會議通過 110.05.25.校課程委員會議及 110.06.15.教務會議審議通過

科目CoursesFirst SemesterSecond Semester學分學時學分學時		110.03.23.7			5.15.教務會議	
大門の後件目 (10 年分) General Required Courses (10credits)	科目	Courses	上學期 First Semester		下學期 Second Semester	
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		共同必修科目(10 學分) General Required Courses (10cr			0.00.00	
第二學年 Second Year			,			
第二學年 Second Year	書報討論		1	2	1	2
Seminar   1   2   1   2   3   3   3   3   3   3   3   3   3						
新文(一)	書報討論		1	2	1	2
協立	論文(一)	Thesis (I)	3	3		
核心遊篷蜂科目(3 學分) Core Required Courses (3credits)		V/	_		3	3
Sample		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	dits)			
Age		<u> </u>	,			
選修料目(15 學分)   Elective Credits (15credits)   基礎課程 General Courses   第一學年 First Year   特容機械産業分析特論	精密工程科技概論	Introduction of Precision Engineering Technology	3	3		
基礎課程 General Courses           第一學年 First Year           精密機械產業分析持論         Special Topic of Precision Machine Industry Analysis         3         3         3         3         3         4         Perezing Addition and Application and Applications         3	177 1-17 12 173 173	<u> </u>				
#苦機械産業分析特論 Special Topic of Precision Machine Industry Analysis 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3						
構密機械產業分析特論         Special Topic of Precision Machine Industry Analysis         3         3           冷凍空調系統工程         Heating, Ventilation, and Air Conditioning System         3         3           能選工程實務         Energy and Power Engineering         3         3           最佳化方法專應用         Optimization and Applications         3         3           切削特論         Special Topics of Machining Technology         3         3           電腦輔助工程技術         Computer Aided Engineering Technology         3         3           機電整合結論         Special Topics on Mechatronic Engineering         3         3           微機電系統         Micro-Mechatronic Systems         3         3           冷凍空測控制工程         Control Engineering of Refrigeration and Air-conditioning System         3         3           冷凍空調控制工程         Control Engineering of Refrigeration and Air-conditioning System         3         3           水井流體力學         Fuel Cell Theory and Applications         3         3           本計議體力學         Computer-Aided Fluid Dynamics         3         3           本学化學         Special Topics of Electrochemistry         3         3           需要報酬的活場所         Computer-Aided Fluid Analysis         3         3           精密機械運動         Special Topics of Precision Manufacturing						
冷凍空調系統工程         Heating, Ventilation, and Air Conditioning System         3         3           態源工程實務         Energy and Power Engineering         3         3           最佳化方法與應用         Optimization and Applications         3         3           切削結論         Special Topics of Machining Technology         3         3           機電整合結論         Computer Aided Engineering Technology         3         3           機電系統         Micro-Mechatronic Systems         3         3           常来科技特論         Special Topics of Nano Sciences and Technology         3         3           冷凍空調控制工程         Control Engineering of Refrigeration and Air-conditioning System         3         3           燃料電池原理與應用         Fuel Cell Theory and Applications         3         3           計算流體力學         Computational Fluid Dynamics         3         3           高等電化學         Special Topics of Electrochemistry         3         3           需需整進學         Special Topics of Precision Manufacturing         3         3           精密機械控制         Precise Machine Measurement         3         3           創新管機構成學到         Precise Machine Measurement         3         3           創新管規模         Special Topics of Organic Chemistry         3         3	精密機械產業分析特論		3	3		
能源工程實務						
最佳化方法與應用         Optimization and Applications         3         3         3           切削特論         Special Topics of Machining Technology         3         3         3           電腦補助工程技術         Computer Aided Engineering Technology         3         3         3           微機電影台特論         Special Topics on Mechatronic Engineering         3         3         3           微機電影台特論         Special Topics of Nano Sciences and Technology         3         3         3           奈米科技特論         Special Topics of Nano Sciences and Technology         3         3         3           水學空調控制工程         Control Engineering of Refrigeration and Air-conditioning System         3         3         3           水學空調控制工程         Control Engineering of Refrigeration and Air-conditioning System         3         3         3           Precial Page Ape         Control Engineering of Refrigeration and Air-conditioning System         3         3         3           古年地學型學園 Ape Ape Ape Ape Ape Applications Full Dynamics and Control System         3         3         3         3         3           電際輔助流場分析         Computer-Aided Fluid Analysis         3         3         3         3         3         3         3         3         3         3         3         3         3						
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風力發電特論     Special Topics of Wind Power     3     3       空調節能技術     Energy Saving Techniques of Refrigeration and Air-Conditioning System     3     3       電子熱傳     Electronic Heat Transfer     3     3		1 2				
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	·	Conditioning System				
複合材料特論 Special Topics of Composite Materials 3 3						
	複合材料特論	Special Topics of Composite Materials			3	3

科目	Courses		上學期 First Semester		下學期 Second Semester			
		學分 Credits	學時 Hour	學分 Credits	學時 Hour			
	Special Topics of Thin Film Technology	or cures	11041	3	3			
特用化學材料	Special Chemical Materials			3	3			
進階課程 Advanced Courses								
第二學年 Second Year								
精密機械設計	Design for Precision Machinery	3	3					
機械振動與量測	Mechanical Vibrations and Measurements	3	3					
奈米材料與化工技術	Nanomaterials and Chemical Technology	3	3					
電化學技術與應用	Electrochemical Techniques and Applications	3	3					
特殊通風技術	Special Air Ventilation Technology	3	3					
綠建築物理環境控制	Physical Environment Control of Green Architecture	3	3					
有限元素法特論	Special Topics of Finite Element Method			3	3			
微系統製造技術	Fabrication Technologies of Micro-systems			3	3			
煙控系統設計與分析	Design and Analysis of Smoke Management Systems			3	3			
室內環境品質	Indoor Environment Quality			3	3			
特殊空調設計	Special HVAC system design			3	3			
導電性高分子特論	Special Topics of Electro Conductive Polymers			3	3			
氫能技術與應用	Hydrogen Technology and Application			3	3			

## 備註 Note:

一、畢業至少應修滿 28 學分【共同必修 10 學分(博士論文 6 學分,書報討論 4 學分 8 學時)、核心必選修課程 3 學分,選修至少 15 學分】

Students should complete at least 28 credits before graduation, includes 10 required credits (6 credits for Thesis and 4 credits for Seminar), Core Required Courses 3credits,15 elective credits.

- 二、本所訂有「國立勤益科技大學精密製造科技研究所博士班修業辦法」,請依規定辦理。
  Please follow the regulations of "The NCUT, Ph.D. Program, Graduated Institute of Precision Manufacturing on Academic Studies"
- 三、學生於畢業前須修過「學術研究倫理教育課程」必修 0 學分(6 小時)課程。 Before graduation, each student should complete Academic Research Ethics Education Course, which is 6 hours required course with 0 credit.