

國立虎尾科技大學動力機械工程系
機械與機電工程碩士在職專班課程科目表

National Formosa University Department of Power Mechanical Engineering Curriculum
for Master's Program (2020)

109年04月14日108學年度第4次系課程規劃會議通過

109年04月21日108學年度第7次系務會議通過

109年6月16日108學年度第4次教務會議通過

First Academic Year						
	First Semester			Second Semester		
	Course Name	Credit	Hour	Course Name	Credit	Hour
Elective Courses	Thin Film Engineering 薄膜工程	3	3	Additive Manufacturing 積層製造學	3	3
Elective Courses	Numerical Method 數值方法	3	3	Convective Heat Transfer 熱對流	3	3
Elective Courses	Numerical Heat Transfer 數值熱傳	3	3	Computational Fluid Dynamics 計算流體力學	3	3
Elective Courses	Electric Motor Controls 電動機控制	3	3	Linear System Analysis 線性系統分析	3	3
Elective Courses	Elasticity 彈性力學	3	3	Finite Element Method 有限元素法	3	3
Elective Courses	Mechanical Vibrations 機械振動學	3	3	Reliability Engineering 可靠度工程	3	3
Elective Courses	Tribology Theory 磨潤原理	3	3	Electronic Equipment Cooling System 電子裝備散熱系統	3	3
Elective Courses	Digital Image Processing 數位影像處理	3	3	Heat Transfer Analysis and Experiment for Electro-optic Product Design 光電產品熱傳分析與實驗	3	3
Elective Courses	Design of Experiments 實驗設計	3	3	Reliability Engineering Practice 可靠度工程實務	3	3
Elective Courses	Probability and Statistics 機率與統計	3	3	Systematic Innovation Design Theory 系統化創新設計理論	3	3
Elective Courses	Micro Electric Machine System (MEMS) 微機電系統	3	3	Heat Exchanger Design 熱交換器設計	3	3
Elective Courses	Advanced Vehicle Dynamics 高等車輛動力學	3	3	Product Competitive Analysis of High-tech Industry 高科技產業產品競爭力分析	3	3
Elective Courses	Design and Verification Technology for Automotive Electron 車輛電子設計與驗證技術	3	3	Development of Intelligent Technology for Vehicle 車輛智慧化關鍵技術發展	3	3
Elective Courses	Object-Oriented Programming 物件導向程式設計	3	3	Electric Motor Controls 電動機控制	3	3
Elective Courses				Artificial Intelligence and Its Applications 人工智慧與應用	3	3

Second Academic Year

	First Semester			Second Semester		
	Course Name	Credit	Hour	Course Name	Credit	Hour
Required Courses	Thesis 1 碩士論文	3	0	Thesis 2 碩士論文	3	0
Elective Courses	Engineering Optics 工程光學	3	3	Special Topic on Machine Tools 工具機特論	3	3
Elective Courses	Optimum Design 最佳化設計	3	3	Mold Flow Computer Simulation 電腦輔助模流分析	3	3
Elective Courses	Energy Conversion Principle 電能轉換原理	3	3			
Elective Courses	Computer-aided Mold Design 電腦輔助模具設計	3	3			

Note: 碩士在職班畢業學分為 30 學分，其中碩士論文 6 學分，專業選修科目至少 24 學分以上。