

# 國立虎尾科技大學動力機械工程系

## 機械與機電工程碩士班課程科目表

National Formosa University Department of Power Mechanical Engineering  
Curriculum for Master's Program (2017)

106 年 6 月 14 日 105 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
Required Courses	Chinese1 華語教學 1	0	4	Chinese2 華語教學 2	0	4
Required Courses	Seminar 1 專題研討 1	0	2	Seminar 2 專題研討 2	0	2
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 Methods for 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	Object-Oriented Programming 物件導向程式設計	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	Advanced Vehicle Dynamics 高等車輛動力學	3	3	Development of Intelligent Technology for Vehicle 車輛智慧化關鍵技術發展	3	3
Elective Courses	Design and Verification Technology for Automotive Electron 車輛電子設計與驗證技術	3	3	Electric Motor Controls 電動機控制	3	3

First Academic Year						
	First Semester			Second Semester		
	Course Name	Credit	Hour	Course Name	Credit	Hour
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	Chinese 3 華語教學 3	0	4	Chinese 4 華語教學 4	0	4
Required Courses	Thesis 1 碩士論文	3	0	Thesis 2 碩士論文	3	0
Required Courses	Seminar 3 專題研討 3	0	2	Seminar 4 專題研討 4	0	2
Elective Courses	Industrial R&D Internship 1 產業研發實習(一)	0	2	Industrial R&D Internship 2 產業研發實習(二)	0	2
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 :

1.最低畢業學分： 30 學分。含必修學分(畢業論文)： 6 學分；選修學分：24 學分（選修學分含經核定之跨系所選修學分）。

【Minimum required credit: 30 credits with 6 required credits and 24 elective credits which may include pre-approved inter-institution elective credits.】

2.允許跨所選修不得高於 9 學分【Approving inter-institution 9 elective credits.】

3.外籍學生必修科目為華語教學 1(0 學分/4 小時)、華語教學 2(0 學分/4 小時)、華語教學 3(0 學分/4 小時)、華語教學 4(0 學分/4 小時)、可抵免專題研討學分。【Foreign Students Required Courses: Chinese 1、Chinese 2、Chinese 3 and Chinese 4.】

4. 產業研發實習(一) (0 學分/2 小時)、產業研發實習(二) (0 學分/2 小時) 可抵免專題研討 3、專題研討 4。