

科目	Subjects	上學期		下學期	
		First Semester		Second Semester	
		學分 Credits	學時 Hour	學分 Credits	學時 Hour
必修科目(8 學分) Required Courses (8credits hours)					
第一學年 First Year					
書報討論	Seminar	1	2	1	2
第二學年Second Year					
論文	Papers	3	3	3	3
專業選修科目 Professional Electives Courses					
第一學年 First Year					
基礎選修課程(至少選修 3 學分)Fundamental Electives Courses (at least 3 credits should be completed in Fundamental Electives Courses)					
計算機演算法	Computer Algorithms	3	3		
高等作業研究	Advanced Operations Research	3	3		
類神經網路	Neural Network Design	3	3		
高等工程經濟	Engineering Economy	3	3		
最佳化演算法	Optimization Algorithms	3	3		
多變量分析	Multivariate Analysis			3	3
資料探勘技術	Data Mining Techniques and Applications			3	3
高等統計學	Advanced Statistics			3	3
實驗設計	Design of Experiments			3	3
進化式演算法	Evolutionary Algorithms			3	3
進階選修課程 Advanced Electives Courses					
科技管理	Technology of Management	3	3		
自動檢測系統	Automatic Inspection System	3	3		
高等品質管理	Advanced Quality Management	3	3		
品質工程	Quality Engineering	3	3		
高等人因工程	Human Factors	3	3		
國際品質保證	International Quality Assurance	3	3		
安全工程	Safety Engineering	3	3		
生產規劃與排程	Production Planning & Scheduling	3	3		
創業與創新	Entrepreneurship and Innovation	3	3		
全球運籌管理	Global Logistics Management	3	3		
電腦整合製造	Computer-Integrated Manufacturing	3	3		
產業電子化專題	Special Topics on E-business	3	3		
多目標規劃	Multi-Objective Optimization	3	3		
企業策略與競爭分析	Strategic and Competitive Analysis for Enterprise	3	3		
高等專案管理	Advanced Project Management	3	3		
高等生產管理	Advanced Operations Management	3	3		
管理經濟	Managerial Economics	3	3		
研究技巧	Research Techniques	3	3		
人類訊息處理	Human Information Processing	3	3		
協同商務	Collaborative Business	3	3		
創新管理與應用	Innovation Management and Application			3	3
績效評估方法	Performance Evaluation Method			3	3
經營診斷與管理	Business Diagnosis			3	3
高等統計製程管制	Advanced Statistics Process Control			3	3
人機介面	Human-Machine Interaction			3	3
全面品質管理	Total Quality Management			3	3
風險危害評估	Risk and Hazard Assessment			3	3
專利與創新發明	Patent and Invention Innovation			3	3
知識管理	Special Topics of Knowledge			3	3
企業資源規劃	Enterprise Resource Planning			3	3
系統模擬	System Simulation			3	3
系統性創新方法	Systematic Innovation			3	3
供應鏈管理	Supply Chain Management			3	3
先進產業科技	Advanced Industry Technology			3	3
電腦圖學理論與應用	Computer Graph Theory and Application			3	3

財務管理	Financial Management			3	3
模糊決策分析	Fuzzy Analytic Hierarchy Process			3	3
智慧製造與管理	Information Technology and Corporate Strategy			3	3
精實生產系統	Lean Production System			3	3
獨立研究	Independent Study			3	3
商務企劃管理	Business Planning Management			3	3
人因測試與評估	Ergonomic Testing and Evaluation			3	3
第二學年 Second Year					
基礎選修課程 Fundamental Electives Courses					
校外實務研究(暑期)	Cooperative Education and Research in Practice (Summer)	3	3		
進階選修課程 Advanced Electives Courses					

備註 Note：

一、畢業至少應修 38 學分：必修 8 學分(含論文 6 學分、書報討論 2 學分)，選修 30 學分（專業選修至少 21 學分）。

Before graduation, each student should complete at least 38 credits, including 8 required credits (Thesis 6 credits and Seminar 2 credits) and 30 elective credits (at least 21 credits should be completed in department elective courses).

二、基礎課程選修科目至少選修一門（3 學分）。

At least 3 credits should be completed in fundamental elective courses.

三、非工業工程與管理類報考之新生須於大學部補修生產管理或工業工程與管理導論任一科，及格標準分數為 70 分，但不列入畢業學分內。

Freshmen who apply for non-industrial engineering and management must apply for reimbursement in the Department of Production Management or Introduction to Industrial Engineering and Management. The passing standard score is 70 but not included in the graduation credit.

四、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.