# 萬能科技大學 109學年度 日間部四技 工業管理系 課程規劃表
# Curriculum for Bachelor's Degree in Department of Industrial Management , Vanung University
Academic Year 2020

| 學年 Academic Year | 第一年 First Year | | 第二年 Second Year | | 第三年 Third Year | | 第四年 Fourth Year | | 通識必修學分 General Eduction Compulsory Credits | 28 | 通識必修比率 Liberal Studies Required Rate | 22% | 校定必修比率 University Compulsory Courses Rate | 5% | 校外實習學分/時數 Off-Campus Internship Credits/Hours | 18 | 18 | 1090324系課程會議、1090325系務會議通過 (系主任簽章) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 學期 Semester | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 專業必修學分 Professional Compulsory Credits | 49 | 專業必修比率 Professional Studies Required Rate | 38% | 院共必修比率 College Compulsory Courses Rate | 6% | 遠距教學學分/時數 Distance Learning Credits/Hours | 0 | 0 | |
| 每學期最高學分限制 Maximum credit limit per semester | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 最低專業選修學分 Minimum Professioanl Elective Credits | 51 | 最低專業選修比率 Professional Elective Rate | 40% | 系專業必修比率 Department Professional Compulsory Courses Rate | 27% | 校內實習學分/時數 In-Campus Internship Credits/Hours | | | |
| 每學期最低學分限制 Minimum credit limit per semester | 16 | 16 | 16 | 16 | 16 | 16 | 9 | 9 | 畢業應修最低學分 Minimum Credits Requirement for Graduation | 128 | 總計 Total | 100% | | | | | | |

| 學年 Academic Year / 課程 Course | 第一學年 The First Academic Year | | | | | 第二學年 The Second Academic Year | | | | | 第三學年 The Third Academic Year | | | | | 第四學年 The Forth Academic Year | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 科目 Subject | 第一學期 Semester 1 | | 第二學期 Semester 2 | | 科目 Subject | 第一學期 Semester 1 | | 第二學期 Semester 2 | | 科目 Subject | 第一學期 Semester 1 | | 第二學期 Semester 2 | | 科目 Subject | 第一學期 Semester 1 | | 第二學期 Semester 2 | | | |
| | | 學分 Credit | 時數 Hours | 學分 Credit | 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 | | |
| 校定必修課程 University Required Courses | | | | | | 職涯探索與規劃 Career exploration and planning | 2 | 2 | | | 跨領域學習課程 Interdisciplinary Learning | 2 | 2 | | | | | | | | Credits | Hours |
| | | | | | | 桃園產業特色 Interdisciplinary Learning | | | 2 | 2 | | | | | | | | | | | | |
| | 小計 Subtotal | 0 | 0 | 0 | 0 | 小計 Subtotal | 2 | 2 | 2 | 2 | 小計 Subtotal | 2 | 2 | 0 | 0 | 小計 Subtotal | 0 | 0 | 0 | 0 | 6 | 6 |
| 通識必修課程 Required Courses of General Education | 英文一 English 1 | 2 | 2 | | | 中文鑑賞與應用一 The Appreciation and Use of the Chinese Language 1 | 2 | 2 | | | 知性通識課程 Liberal Arts Courses for General Education | 2 | 2 | 2 | 2 | | | | | | | |
| | 英文二 English 2 | | | 2 | 2 | 中文鑑賞與應用二 The Appreciation and Use of the Chinese Language 2 | | | 2 | 2 | 知性通識課程 Liberal Arts Courses for General Education | 2 | 2 | | | | | | | | | |
| | 程式設計 Computer programming | | | 2 | 2 | 英文三 English 3 | 2 | 2 | | | 體育 Physical Education | 1 | 2 | 1 | 2 | | | | | | | |
| | 服務學習 Community Service | 0 | 1 | | | 英文四 English 4 | | | 2 | 2 | | | | | | | | | | | | |
| | | | | | | 憲法與法治生活 The Constitution and Law Life | 2 | 2 | | | | | | | | | | | | | | |
| | | | | | | 當代台灣與現代世界 Contemporary Taiwan and the M | | | 2 | 2 | | | | | | | | | | | | |
| | | | | | | 體育 Physical Education | 1 | 2 | 1 | 2 | | | | | | | | | | | Credits | Hours |
| | 小計 Subtotal | 2 | 3 | 4 | 4 | 小計 Subtotal | 7 | 8 | 7 | 8 | 小計 Subtotal | 5 | 6 | 3 | 4 | 小計 Subtotal | 0 | 0 | 0 | 0 | 28 | 33 |
| 通識選修課程 Elective Courses of General Education | | | | | | | | | | | 全民國防教育 National Defense Education military | | | 0 | 2 | | | | | | Credits | Hours |
| | 小計 Subtotal | 0 | 0 | 0 | 0 | 小計 Subtotal | 0 | 0 | 0 | 0 | 小計 Subtotal | 0 | 0 | 0 | 2 | 小計 Subtotal | 0 | 0 | 0 | 0 | 0 | 2 |
| 院共同必修課程 Required Courses of Institute | 電腦輔助繪圖(一) Computer Aided Drafting (I) | 2 | 3 | | | 跨域特色課程 Interdisciplinary Featured Course | 3 | 3 | | | | | | | | | | | | | | |
| | | | | | | 跨域特色課程 Interdisciplinary Featured Course | | | 3 | 3 | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | Credits | Hours |
| | 小計 Subtotal | 2 | 3 | 0 | 0 | 小計 Subtotal | 3 | 3 | 3 | 3 | 小計 Subtotal | 0 | 0 | 0 | 0 | 小計 Subtotal | 0 | 0 | 0 | 0 | 8 | 9 |
| 系專業必修課程 Required Professional Course of Department | 計算機應用 Applied of Computer Science | 2 | 3 | | | 生產與作業管理與實習 Production and Operations Management and Practice | 3 | 4 | | | 設施規劃與實習 Facilities planning and Practice | 3 | 4 | | | 校外實習_學年 Field Practice | 9 | 9 | | | | |
| | 統計學與實習 Statistics with Practice | | | 3 | 4 | 品質管理與實習 Quality Management and Prctice | | | 3 | 4 | | | | | | 校外實習_學年 Field Practice | | | 9 | 9 | | |
| | 人因工程與實習 Ergonomics and Prctice | | | 3 | 4 | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | Credits | Hours |
| | 小計 Subtotal | 2 | 3 | 6 | 8 | 小計 Subtotal | 3 | 4 | 3 | 4 | 小計 Subtotal | 3 | 4 | 0 | 0 | 小計 Subtotal | 9 | 9 | 9 | 9 | 35 | 41 |
| 系專業選修課程 Professional Department Eelective Courses | 機械基礎實習(一) Machinery fundamental practice(I) | 2 | 4 | | | 電腦輔助繪圖(二) Computer Aided Drafting (II) | 3 | 3 | | | 數值控制加工進階實習(一) Advanced NC Machine Operation (I) | 3 | 4 | | | | | | | | | |
| | 製造工程概論 Introduction to Manufacturing Engineering | 3 | 3 | | | 企業資源規劃 Enterprise Resource Planning | 3 | 3 | | | 電腦輔助模具設計 Computer Aided Mold Design | 3 | 3 | | | | | | | | | |
| | 管理心理學 Managerial Psychology | 3 | 3 | | | 電腦輔助製造與實習(一) Practice in Computer-Aided Manufacturing (I) | 3 | 4 | | | 曲面建構模型 Surface construction model | 3 | 3 | | | | | | | | | |
| | 工作研究 Motion and Time Study | 3 | 3 | | | 智慧產品創新設計 Innovative Design of Intelligent Products | 3 | 3 | | | 逆向工程與實習 Practices of Reverse Emgineering | 3 | 3 | | | | | | | | | |
| | 經濟學 Economics | 3 | 3 | | | 工具工程 Engineering Materials | 3 | 3 | | | 供應鏈管理 Supply Chain Management | 3 | 3 | | | | | | | | | |
| | 基礎數學 Basic Mathematics | 3 | 3 | | | 職業衛生 Occupation health | 3 | 3 | | | 精實生產 Lean Production | 3 | 3 | | | | | | | | | |
| | 工程材料 Engineering Materials | 3 | 3 | | | 共通核心職能課程 Common core competencies | 3 | 3 | | | 品質實務 Quality Practice | 3 | 3 | | | | | | | | | |
| | 日文 Japanese | 2 | 2 | | | 複合材料概論 Introduction of Composite Materials | 3 | 3 | | | 切削加工實務與實作 Practices of Machining | 3 | 3 | | | | | | | | | |
| | 機械基礎實習(二) Machinery fundamental practice(II) | | | 2 | 4 | 組織與管理 Organization Theory and Management | 3 | 3 | | | 六標準差管理 Six sigma quality management | 3 | 3 | | | | | | | | | |
| | 物料管理 Material Management | | | 3 | 3 | 可程式控制與實習 Programmable Logic Controller Design and Practice | 3 | 3 | | | 容差設計概論 Allowance Design | 3 | 3 | | | | | | | | | |
| | 創意應用概論 Introduction of Creation Application | | | 2 | 2 | 專利實務 Patent Practice | 2 | 2 | | | 品質保證系統 The system of quality assurance | 3 | 3 | | | | | | | | | |
| | 航太工程概論 ntroduction to Aerospace Engineering | | | 3 | 3 | 基礎量測概論與實習 Practice of Measurements | | | 3 | 4 | 實務專題 Practical Projects | 2 | 3 | | | | | | | | | |
| | 電腦程式與應用 Computer programs and applications | | | 2 | 3 | 3D模組化設計 Modularization Design of 3D models | | | 3 | 3 | 精實生產:即時化生產 Lean Production: Just0in-time Production | 1 | 1 | | | | | | | | | |
| | 工具機原理與實務 Principle and Practice of Machine Tool | | | 3 | 3 | 職業安全 Occupational Safety | | | 3 | 3 | 精實生產:豐田生產系統 Lean Production: Toyota Production System | 1 | 1 | | | | | | | | | |
| | 電腦整合製造 Computer Integrated Manufacturing | | | 3 | 3 | 非傳統製造技術 Introductions of non-traditional manufacturing techniques | | | 2 | 2 | 精實生產:全面生產革新 Lean Production: Total Productive Innovation | 1 | 1 | | | | | | | | | |
| | 行銷管理 Marketing | | | 3 | 3 | 作業研究 Operations Research | | | 3 | 3 | 精密量測與實習 Practice of Precision Measurements | | | 3 | 4 | | | | | | | |
| | | | | | | 職業安全衛生法規 Law of Occupational Safety and Health | | | 3 | 3 | 全球運籌管理 Global Logistics Management | | | 3 | 3 | | | | | | | |
| | | | | | | 電腦輔助製造與實習(二) Practice in Computer-Aided Manufacturing (II) | | | 3 | 4 | 生產與作業管理實務 Production and operations management practices | | | 3 | 3 | | | | | | | |
| | | | | | | 專案管理 Project Management | | | 3 | 3 | 電腦3D動畫 Computer 3D animation | | | 3 | 3 | | | | | | | |
| | | | | | | 工程經濟 Engineering Economics | | | 3 | 3 | 數值控制加工進階實習(二) Advanced NC Machine Operation (II) | | | 3 | 4 | | | | | | | |
| | | | | | | 專業英文 Professional English | | | 2 | 2 | 會計學 Accounting | | | 3 | 3 | | | | | | | |
| | | | | | | 金屬切削原理 Principle of metal cutting | | | 3 | 3 | 彈性製造系統 Flexible Manufacturing Systems | | | 3 | 3 | | | | | | | |
| | | | | | | 熱處理技術 Heat treatment technology | | | 3 | 3 | 物流管理 Management of Business Logistics | | | 3 | 3 | | | | | | | |
| | | | | | | 機動學 | | | 3 | 3 | 實驗設計 Experimental Design and Methods | | | 3 | 3 | | | | | | | |
| | | | | | | | | | | | 多軸複合化加工技術與實習 Practices of Multitasking Machining Center Technologies | | | 3 | 3 | | | | | | | | |
| | | | | | | | | | | | 全面品質經營 Total Quality Management | | | 3 | 3 | | | | | | | |
| | | | | | | | | | | | 電腦軟體應用 Computer software application | | | 3 | 3 | | | | | | | |
| | | | | | | | | | | | 網路行銷 Internet Marketing | | | 3 | 3 | | | | | | | |
| | | | | | | | | | | | 風險評估 Risk and Hazard Assessment | | | 3 | 3 | | | | | | | |
| | | | | | | | | | | | | | | 3 | 3 | | | | | | Credits | Hours |
| | 最低選修學分 Minimum Elective Credits | 12 | 12 | 10 | 10 | 最低選修學分 Minimum Elective Credits | 5 | 8 | 5 | 8 | 最低選修學分 Minimum Elective Credits | 8 | 11 | 11 | 15 | 最低選修學分 Minimum Elective Credits | 0 | 0 | 0 | 0 | 51 | 64 |
| 總學分數 Total Credits | | | | | | | | | | | | | | | | | | | | | | |
| 128 | | | | | | | | | | | | | | | | | | | | | | |
| 總開課時數 Total Teaching | | | | | | | | | | | | | | | | | | | | | | |
| 155 | 合計 Total | 18 | 21 | 20 | 22 | 合計 Total | 20 | 25 | 20 | 25 | 合計 Total | 18 | 23 | 14 | 21 | 合計 Total | 9 | 9 | 9 | 9 | 128 | 155 |