**元智大學工業工程與管理學系**

**品質與服務學程**

Quality and Service Program

112.04.19 一一一學年度第六次教務會議通過

Passed by the 6th Academic Affairs Meeting, Academic Year 2022, on April 19, 2023

**課程規劃Study Plan**

資訊類課程：任選2門(6學分)

Information Technology courses: Select 2 courses (total 6 credits)

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| --- | --- | --- |
| 課號  course code | 課程名稱course name | 學分  credits |
| IE120 | RFID概論  Introduction to RFID | 3 |
| IE235 | 資訊安全與規範  Information Security and Policy | 3 |
| IE247 | 系統模擬與應用  System Simulation and Applications | 3 |
| IE337 | 應用電子商務  Practical Electronic Commerce | 3 |
| IE351 | 3D互動數位內容製作  Implementation of 3D Interactive Digital Content | 3 |
| IE356 | 行動應用程式設計與開發  Design and Development of Mobile Application | 3 |
| IE392 | 近代網路應用  Networks and Contemporary Applications | 3 |
| IE428 | 資料分析  Data Analysis | 3 |
| IE438 | 深度學習神經網路概論與實作  Introduction and Practices to Deep Learning Neural Networks | 3 |

品質與服務類課程：任選3門(9學分)

Quality and Service courses: Select 3 courses ( 9 credits)

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| --- | --- | --- |
| 課號  course code | 課程名稱course name | 學分  credits |
| IE230 | 工業組織與管理  Industrial Organization and Management | 3 |
| IE237  IE304 | 應用統計分析 Applied Statistical Analysis  統計建模與電腦化實作Statistical Modeling and Computerized Implementations  (擇一) | 3 |
| IE243 | 產品設計思維Product Design | 3 |
| IE244 | 服務科學導論 Introduction to Service Sciences | 3 |
| IE245 | 服務工程 Service Engineering | 3 |
| IE313 | 人因工程（二）Human Factors(II) | 3 |
| IE315 | 可靠度工程Reliability Engineering | 3 |
| IE326 | 工業安全  Industrial Safety | 3 |
| IE354 | 雲端科技與服務  Cloud Computing Technology and Services | 3 |
| IE375 | 專案管理  Project Management | 3 |
| IE376 | 醫療品質管理  Quality Management in Healthcare | 3 |
| IE407 | 全面品質管理  Total Quality Management | 3 |
| IE423 | 服務業管理概論  Introduction to Service Management | 3 |

**學程證書授與標準：**

凡修畢以上2門資訊類課程及3門品質與服務類課程，共15學分者，授與「品質與服務學程」證書。Program certificate requirement: after completing 2 courses of Information Technology & 3 courses of Quality and Service (with total 15 credits), Certificate of “Quality & Service Program” will be issued.

**人因工程與設計學程**

**Human Factors and Design Program**

111.11.16 一一一學年度第二次教務會議通過

Amended by the 2nd Academic Affairs Meeting, Academic Year 2022, on November 16, 2022

**課程規劃Study Plan**

必修課程：4門選2門 (6學分)

Required Courses：Select 2 out of 4 as a total of 6 credits

|  |  |  |  |
| --- | --- | --- | --- |
| 課號  Course code | 課程名稱  Course name | 必/選修  Require/ Elective | 學分credits |
| IE121 | 工業設計  Introduction to Industrial Design | 選修 | 3 |
| IE220 | 人因工程（一）  Human Factors(I) | 系必修 | 3 |
| IE243  AD115 | 產品設計思維Product Design  設計創作Design Studio(I) （擇一） | 選修  系必修 | 3  3 |
| IE313 | 人因工程（二）  Human Factors(II) | 選修 | 3 |

選修課程：13門選3門（9學分）

Elective Courses: Select 3 out of 13, as a total of 9 credits

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| --- | --- | --- | --- |
| 課號  Course code | 課程名稱  Course name | 開課學系  Department | 學分  credits |
| IE122 | 基礎物聯網應用與實作  Fundamental Applications and Practices of Internet of Things | 工管IEM | 3 |
| IE237 | 統計建模與電腦化實作  Statistical Modeling and Computerized Implementations | 工管IEM | 3 |
| IE245 | 服務工程Service Engineering | 工管IEM | 3 |
| IE304 | 應用統計分析Applied Statistical Analysis | 工管IEM | 3 |
| IE351 | 3D互動數位內容製作  Implementation of 3D Interactive Digital Content | 工管IEM | 3 |
| IE356 | 行動應用程式設計與開發  Design and Development of Mobile Application | 工管IEM | 3 |
| IE375 | 專案管理  Project Management | 工管IEM | 3 |
| AD269 | 電腦輔助設計與製造  Computer-aided Design and Manufacture | 藝設系AD | 3 |
| ME388/AD313 | 藝術與設計創作（一）  Art & Design Studio(I) | 藝設系AD | 3 |
| AD314 | 藝術與設計創作（二）  Art & Design Studio(II) | 藝設系AD | 3 |
| AD446 | 互動科技裝置：實務與應用  Interactive Media Installation : Practice & Application | 藝設系AD | 3 |
| EE479 | 人機互動概論  Human-Computer Interaction | 電機系EE | 3 |
| EE492 | 工程應用生理學  Bioengineering Physiology | 電機系EE | 3 |

**學程證書授與標準：**

凡修畢學程課程十五學分(至少含必修課程六學分)，經學程負責單位審查無誤後，由工學院授與「人因工程與設計學程」學程證明書。

Program Certificate standard of issue: must complete 15 credits of the program courses (with at least 6 credits of required courses); once approved by the authorized department, College of Engineering will issue the “Human Factors and Design Program” program certificate.

**電子化供應鏈學程**

**E-Supply Chain Management Program**

111.11.16 一一一學年度第二次教務會議通過

Amended by the 2nd Academic Affairs Meeting, Academic Year 2022, on November 16, 2022

**課程規劃Study Plan**

必修課程共6學分 Required : Total 6 credits

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| --- | --- | --- | --- |
| 課號  Course code | 課程名稱Course name | 開課學系Department | 學分數credits |
| IE312  IM424  CM302  CM240 | 物流管理  Logistics Management  供應鏈管理導論  Introduction to Supply Chain Management  供應鏈管理  Supply Chain Management  全球電商與物流  E-Commerce and Logistics | 工管IEM  資管IM  管院CM  管院CM | 3 |
| IE352  CM350 | 國際物流管理  Internationl Logistics Management  全球運籌管理  Global Logistics Management | 工管IEM  管院CM | 3 |

**選修課程：至少選三門課程共9學分**

Elective : At least 3 courses, 9 credits

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| --- | --- | --- | --- |
| 課號  Course code | 課程名稱  Course name | 開課學系Department | 學分數credits |
| IE120 | RFID概論Introduction to RFID | 工管IEM | 3 |
| IE322 | 物料管理Material Management | 工管IEM | 3 |
| IE342 | 採購管理Procurement Management | 工管IEM | 3 |
| IM 425  CM402 | 顧客關係管理  Customer Relationship Management  顧客關係管理  Customer Relationship Management | 資管IM  管院CM | 3 |
| IE435  IM320  CM408 | 行銷學Marketing  網路行銷Internet Marketing  網路行銷Internet Marketing | 工管IEM  資管IM  管院CM | 3 |
| IM322  CM208 | 企業資源規劃導論  Introduction to Enterprise Resources Planning  企業資源規劃  Enterprise Resource Planning | 資管IM  管院CM | 3 |
| IE353  CM207  IM426 | RFID資訊系統  RFID Information System  管理資訊系統  Management Information Systems  管理資訊系統（二）  Management Information Systems(II) | 工管IEM  管院CM  資管IM | 3 |
| IE235  IM409 | 資訊安全與規範  Information Security and Policy  資訊與法律  Information and Law | 工管IEM  資管IM | 3 |
| IE226  IM303 | 系統分析與設計  System Analysis and Design  系統分析與設計  System Analysis and Design | 工管IEM  資管IM | 3 |
| IE337  IM410  CM209 | 應用電子商務Practical Electronic Commerce  電子商務Electronic Commerce  電子商務Electronic Commerce | 工管IEM  資管IM  管院CM | 3 |

**學程證書授與標準：**

凡修畢六學分的必修課程及至少三門的選修課程，共十五學分，經學程負責單位審查無誤後，由工學院授與「電子化供應鏈」學程證明書。

Program Certificate standard of issue: must complete 6 credits of required courses and at least 3 elective courses (total of 15 credits); once approved by the authorized department, College of Engineering will issue “E-Supply Chain Management Program” Program Certificate.

**工業4.0－智慧生產學程**

**Industry 4.0－Intelligent Production**

111. 01.05 一一○學年度第三次教務會議通過

Amended by the 3rd Academic Affairs Meeting, Academic Year 2021, on January 05, 2022

**必修課程：共3學分Required：Total 3 credits**

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| --- | --- | --- | --- |
| 課號  Course code | 課程名稱  Course name | 開課學系  Department | 學分數Credits |
| EG201 | 智慧生產概論  Introduction to Intelligent Production | 工程學院  College of Engineering | 3 |

**選修課程：至少選四門課 Elective: At least 4 courses**

| 課號  Course code | 課程名稱  Course name | **開課學系**Department | **學分數**  Credits |
| --- | --- | --- | --- |
| IE120 | RFID概論Introduction to RFID | 工管EM | 3 |
| IE122 | 基礎物聯網應用與實作  Fundamental Applications and Practices of Internet of Things | 工管EM | 3 |
| IE247 | 系統模擬與應用  System Simulation and Applications | 工管EM | 3 |
| IE237  IE304 | 統計建模與電腦化實作  Statistical Modeling and Computerized Implementations  應用統計分析Applied Statistical Analysis  （擇一） | 工管EM | 3 |
| IE392 | 近代網路應用  Networks and Contemporary Applications | 工管EM | 3 |
| IE428 | 資料分析Data Analysis | 工管EM | 3 |
| IE302  ME335 | 工業自動化概論  Introduction to Industrial Automation  自動控制Automatic Control  （擇一） | 工管EM  機械ME | 3 |
| IE346  CH340 | 電路板基礎工程  General Printed Circuit Board Technology  印刷電路板製程  Printed Circuit Board Processing  　　　　　　　　　　　　　　　 （擇一） | 工管IEM  化材CH | 3 |
| IE347  CH334 | 半導體製造工程  Introduction to Semiconductor Manufacturing Technology  半導體製程Semiconductor Processing  　　　　　　　　　　　　　　　 （擇一） | 工管IEM  化材CH | 3 |
| ME384 | 人工智慧概論  Introduction to Artificial Intelligence | 機械ME | 3 |
| ME385 | 感測器原理與應用  Sensor Principles and Applications | 機械ME | 3 |
| ME411 | 機電整合Mechatronics Integration | 機械ME | 3 |
| ME415 | 可程式控制  Sequential Programmable Control | 機械ME | 3 |
| ME441 | 自動化機械設計  Machinery Design Practice(I) | 機械ME | 3 |

**學程證書授與標準：**

凡修畢本學程必修課程一門、及至少四門的選修課程，共十五學分，經學程負責單位審查無誤後，由工學院授與「工業 4.0－智慧生產」學程證明書。Program Certificate standard of issue: must complete program required courses and at least 4 elective courses (total of 15 credits); once approved by the authorized department, College of Engineering will issue “Industry 4.0-Intelligent Production” Program Certificate.