# 明志科技大學四技日間部105學年度入學 環境與安全衛生工程系 課程總表

108/04/16校課程委員會議審議通過
108/04/03院課程委員會議審議通過
108/03/28系課程委員會議審議通過

| | | | 科目名稱 | 一上 | | 一下 | | 二上 | | 二下 | | 三上 | | 三下 | | 四上 | | 四下 | | 選課條件 | 每班人數 | | 備註 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 學分 | 時數 | 學分 | 時數 | 學分 | 時數 | 學分 | 時數 | 學分 | 時數 | 學分 | 時數 | 學分 | 時數 | 學分 | 時數 | | 上限 | 下限 | |
| 必修 | 共同（42學分） | 基礎課程20學分 | 國文(Chinese) | 3 | 3 | 3 | 3 | | | | | | | | | | | | | | | | |
| | | | 英文(English) | 3 | 3 | 3 | 3 | | | | | | | | | | | | | | | | |
| | | | 全民國防教育軍事訓練(All-out Defense Education Military Training) | 0 | 2 | 0 | 2 | | | | | | | | | | | | | | | | |
| | | | 體育(Physical Education) | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | | | | | | | | | | | | |
| | | | 英語聽講(Aural-Oral English) | | | | | 1 | 2 | 1 | 2 | | | | | | | | | | | | |
| | | | 歷史(History) | | | | | | | 3 | 3 | | | | | | | | | | | | |
| | | | 憲政與發展(Constitution& Democratic Development) | | | 3 | 3 | | | | | | | | | | | | | | | | |
| | | | 英文實務(一)~(四)(Practical English) | | | | | 0 | 2 | 0 | 2 | | | | | 0 | 2 | 0 | 2 | | 50 | | 修課總人數不限 |
| | | | 合　計 | 6 | 10 | 9 | 13 | 1 | 6 | 4 | 9 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 20 | | | |
| | | 核心課程（2學分） | 大學之道(The Goal of University Education) | 1 | 2 | | | | | | | | | | | | | | | | | | |
| | | | 服務學習(Service Learning) | | | 1 | 2 | | | | | | | | | | | | | | | | |
| | | | 勤勞教育(Labor Education) | 0 | 0.5 | 0 | 0.5 | | | | | | | | | | | | | | | | |
| | | | 合　計 | 1 | 2.5 | 1 | 2.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | | | |
| | | 校共同課程（20學分） | 實習前職場素養訓練(Professionlism Prior to Practical Training) | | | | | | | | | 0.5 | 0.5 | | | | | | | | | | |
| | | | 工讀自學英文(Self-Study English During Vocational Practice) | | | | | | | | | | | 2 | | | | | | | | | |
| | | | 工讀實務實習(一)(Practical Training Curriculum (1)) | | | | | | | | | | | 4 | | | | | | | | | |
| | | | 工讀實務實習(二)(Practical Training Curriculum (2)) | | | | | | | | | | | 4 | | | | | | | | | |
| | | | 工讀實務實習(三)(Practical Training Curriculum (3)) | | | | | | | | | | | 4.5 | | | | | | | | | |
| | | | 工讀實務實習(四)(Practical Training Curriculum (4)) | | | | | | | | | | | 5 | | | | | | | | | |
| | | | 合　計 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.5 | 0.5 | 20 | 0 | 0 | 0 | 0 | 0 | 20 | | | |
| | 專業（60學分） | 院專業必修（0學分） | 環資學院未開設共同必修課程 | | | | | | | | | | | | | | | | | | | | |
| | | | 合　計 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| | | 系專業必修60學分 | 普通化學(General Chemistry) | 3 | 3 | | | | | | | | | | | | | | | | | | |
| | | | 普通物理(General Physics) | 3 | 3 | | | | | | | | | | | | | | | | | | |
| | | | 工業安全(Industrial Safety) | 2 | 2 | | | | | | | | | | | | | | | | | | |
| | | | 微積分(Calculus) | 3 | 3 | 3 | 3 | | | | | | | | | | | | | | | | |
| | | | 普通化學實驗(General Chemistry Experiment) | | | 1 | 3 | | | | | | | | | | | | | | | | |
| | | | 有機化學(Organic Chemistry) | | | 3 | 3 | | | | | | | | | | | | | | | | |
| | | | 環境工程概論(Introduction to Environmental Engineering) | | | 3 | 3 | | | | | | | | | | | | | | | | |
| | | | 工業衛生(Industrial Hygiene) | | | 2 | 2 | | | | | | | | | | | | | | | | |
| | | | 工程數學(一)(Engineering Mathematics (1)) | | | | | 3 | 3 | | | | | | | | | | | | | | |
| | | | 水質分析實驗(Water Analysis Experiment) | | | | | 1 | 3 | | | | | | | | | | | | | | |
| | | | 流體力學(Fluid Mechanics) | | | | | 3 | 3 | | | | | | | | | | | | | | |
| | | | 儀器分析(Instrumental Analysis) | | | | | 3 | 3 | | | | | | | | | | | | | | 學程課程 |
| | | | 廢棄物處理(Solid Waste Treatment and Disposal) | | | | | | | 3 | 3 | | | | | | | | | | | | 學程課程 |
| | | | 環境微生物學(Environmental Microbiology) | | | | | | | 3 | 3 | | | | | | | | | | | | 學程課程 |
| | | | 環境化學(Environmental Chemistry) | | | | | | | 3 | 3 | | | | | | | | | | | | 學程課程 |
| | | | 環境監測實驗(Environmental Monitoring Experiment) | | | | | | | 1 | 3 | | | | | | | | | | | | |
| | | | 環境微生物學實驗( Environmental Microbiology Experiment) | | | | | | | | | 1 | 3 | | | | | | | | | | |
| | | | 作業環境監測(Workplace Monitoring) | | | | | | | | | 3 | 3 | | | | | | | | | | |
| | | | 污水工程(Wastewater Engineering) | | | | | | | | | | | | | 3 | 3 | | | | | | |
| | | | 空氣污染防制(Fundamentals of Air Pollution) | | | | | | | | | | | | | 3 | 3 | | | | | | |
| | | | 環境工程單元操作實驗(Experiments of Unit Operations on Environmental Engineering) | | | | | | | | | | | | | 1 | 3 | 1 | 3 | | | | |
| | | | 實務專題研究(Special Projects Research) | | | | | 1 | 3 | 1 | 3 | 1 | 3 | | | 1 | 3 | | | | | | |
| | | | 工程倫理與實務講座(Special Topics on Engineering Ethics and Practice) | | | | | | | | | | | | | 1 | 3 | | | | | | |
| | | | 合　計 | 11 | 11 | 12 | 14 | 11 | 15 | 11 | 15 | 5 | 9 | 0 | 0 | 9 | 15 | 1 | 3 | 60 | | | |
| 選修 | 共同（至少8學分應修畢） | 通識選修 | 一、開課清冊請參考「通識課程彙總表」。<br>二、通識四類型課程「語文類型、人文藝術、社會科學、自然科學」<br>需至少各修畢2學分且合計至少8學分。 | | | | | | | | | | | | | | | | | | | | |
| | 專業（應修畢至少30學分） | 院專業選修（開設3學分） | 綠色奈米資源學程實務專題討論<br>(Discussion on green-, nano-, resource- technological program) | | | | | | | | | | | | | 1 | 3 | | | | | | 學程課程 |
| | | | 綠色奈米資源學程實務專題<br>(Special topic on green-, nano-, resource- technological program) | | | | | | | | | | | | | | | 1 | 3 | | | | 學程課程 |
| | | | 頂石專題 I (Capstone project I) | | | | | | | | | 1 | 3 | | | | | | | | | | |
| | | | 合　計 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 1 | 3 | 1 | 3 | 3 | | | |
| | | 系專業選修（開設100學分） | 環境科學概論(Introduction to Environmental Science) | 3 | 3 | | | | | | | | | | | | | | | | | | |
| | | | 電腦在環境工程上的應用(Application of Computer on Environmental Engineering) | 3 | 3 | | | | | | | | | | | | | | | | | | 再造技優計畫課程 |
| | | | 質能均衡(Mass and Energy Balances) | | | 3 | 3 | | | | | | | | | | | | | | | | |
| | | | 工程統計(Engineering Statistics) | | | | | 3 | 3 | | | | | | | | | | | | | | |
| | | | 噪音與振動(Noise and Vibration) | | | | | 3 | 3 | | | | | | | | | | | | | | |
| | | | 物理化學(Physical Chemistry) | | | | | 3 | 3 | | | | | | | | | | | | | | |
| | | | 施工安全(Construction Safety) | | | | | 3 | 3 | | | | | | | | | | | | | | |
| | | | 工程圖學( Engineering Graphics) | | | | | | | 3 | 3 | | | | | | | | | | | | |
| | | | 工程數學(二)(Engineering Mathematics (2)) | | | | | | | 3 | 3 | | | | | | | | | | | | |
| | | | 綠色能源概論(Introduction to Green Energy) | | | | | | | 3 | 3 | | | | | | | | | | | | |
| | | | 職業安全衛生法規(Occupational Safety and Health Regulations) | | | | | | | 3 | 3 | | | | | | | | | | | | |
| | | | 儀器分析實驗(Instrumental Analysis Experiment) | | | | | | | 1 | 3 | | | | | | | | | | | | 再造技優計畫課程 |
| | | | 人因工程(Human Factors Engineering) | | | | | | | | | 3 | 3 | | | | | | | | | | |
| | | | 資源回收(Resource Recovery) | | | | | | | | | 3 | 3 | | | | | | | | | | 學程課程 |
| | | | 工業通風(Industrial Ventilation) | | | | | | | | | 3 | 3 | | | | | | | | | | |
| | | | 職業安全衛生技術特論(Special topic of occupational safety and health technology) | | | | | | | | | 3 | 3 | | | | | | | | | | |
| | | | 職業安全管理(專業選修遠距教學)(Occupational Safety Management) | | | | | | | | | | | 3 | 3 | | | | | 第1階段 | | | 遠距教學 |
| | | | 熱處理技術(專業選修遠距教學)(Thermal Treatment Technology) | | | | | | | | | | | 3 | 3 | | | | | 第2階段 | | | 再造技優計畫課程／遠距教學 |
| | | | 環境規劃管理(Environmental Planning and Management) | | | | | | | | | | | | | 3 | 3 | | | | | | |
| | | | 工業與環境毒物學(Industrial and Environmental Toxicology) | | | | | | | | | | | | | 3 | 3 | | | | | | |
| | | | 風險評估(Risk Assessment) | | | | | | | | | | | | | 3 | 3 | | | | | | |
| | | | 生物肥料製備與應用(Production and Application of Biofertilizer) | | | | | | | | | | | | | 3 | 3 | | | | | | 再造技優計畫課程 |
| | | | 大數據在環境工程上的應用(The Application of Data Mining in the Environmental Engineering) | | | | | | | | | | | | | 3 | 3 | | | | | | |
| | | | 消防法規(Fire Regulations) | | | | | | | | | | | | | 2 | 2 | | | | | | 高教深耕計畫課程 |
| | | | 避難系統(Refuge and Escape Equipments) | | | | | | | | | | | | | 2 | 2 | | | | | | 高教深耕計畫課程 |
| | | | 水系統消防安全設備(Water System Fire Safety Equipments) | | | | | | | | | | | | | 3 | 3 | | | | | | 高教深耕計畫課程 |
| | | | 產業實務專題(Industry Practical Training) | | | | | | | | | | | | | 1 | 3 | 1 | 3 | | | | 再造技優計畫課程 |
| | | | 廢棄物資源化工程(Waste Resourcization Engineering) | | | | | | | | | | | | | | | 3 | 3 | | | | 再造技優計畫課程／學程課程 |
| | | | 下水道工程設計(Sewer Engineering Design) | | | | | | | | | | | | | | | 3 | 3 | | | | |
| | | | 環境保護法規(Environmental Protection Regulations) | | | | | | | | | | | | | | | 3 | 3 | | | | |
| | | | 環境生物技術(Environmental Biotechnology) | | | | | | | | | | | | | | | 3 | 3 | | | | |
| | | | 室內空氣品質(Indoor Air Quality) | | | | | | | | | | | | | | | 3 | 3 | | | | |
| | | | 化學系統消防安全設備(Chemical System Fire Safety Equipments) | | | | | | | | | | | | | | | 3 | 3 | | | | 高教深耕計畫課程 |
| | | | 火災學(An Introduction to Fire Dynamics) | | | | | | | | | | | | | | | 3 | 3 | | | | 高教深耕計畫課程 |
| | | | 警報系統(Fire Alarm Equipments) | | | | | | | | | | | | | | | 3 | 3 | | | | 高教深耕計畫課程 |
| | | | 合　計 | 6 | 6 | 3 | 3 | 12 | 12 | 13 | 15 | 12 | 12 | 6 | 6 | 23 | 25 | 25 | 27 | 100 | | | |

1　畢業最少應修148學分，包含共同必修42學分、專業必修60學分、通識選修8學分、專業選修30學分、一般選修8學分。
2　「工讀實務實習(一)~(四)」及「工讀自學英文」為三下必修，另外可選修遠距教學課程。
3　每學期選課上限為 27 學分，一至二年級不得少於16學分，三至四年級不得少於9學分。
4　三上課程每週以4/3倍時數上課，以補足週數。
5　專業畢業門檻：取得職業安全衛生管理員乙級技術士證照、職業衛生管理甲級技術士證照或消防設備師，詳見本系專業能力畢業門檻及輔導要點。