

112學年度日間部 電機工程系 國際學生產學合作(春季)專班課程規劃表

| 學年度  |           | 112      |    | 113      |    | 學年度  |             | 113      |    | 114      |         | 學年度  |           | 114      |    | 115      |    |   |   |
|------|-----------|----------|----|----------|----|------|-------------|----------|----|----------|---------|------|-----------|----------|----|----------|----|---|---|
| 科目   |           | FEB 2024 |    | SEP 2024 |    | 科目   |             | FEB 2025 |    | SEP 2025 |         | 科目   |           | FEB 2026 |    | SEP 2026 |    |   |   |
|      |           | 學分       | 時數 | 學分       | 時數 |      |             | 學分       | 時數 | 學分       | 時數      |      |           | 學分       | 時數 | 學分       | 時數 |   |   |
| 校必修  | 體育        | 1        | 2  | 1        | 2  | 校必修  |             |          |    |          |         | 校必修  | 台灣社會      | 2        | 2  |          |    |   |   |
|      | 漢語拼音發音練習  | 1        | 2  |          |    |      |             |          |    |          |         |      | 台灣藝術      |          |    | 2        | 2  |   |   |
|      | 華語聽力練習    | 1        | 2  |          |    |      |             |          |    |          |         |      |           |          |    |          |    |   |   |
|      | 華語會話練習    | 1        | 2  |          |    |      |             |          |    |          |         |      |           |          |    |          |    |   |   |
|      | 華語閱讀與理解   | 1        | 2  |          |    |      |             |          |    |          |         |      |           |          |    |          |    |   |   |
|      | 華語寫作練習    | 1        | 2  |          |    |      |             |          |    |          |         |      |           |          |    |          |    |   |   |
|      | 華語輔導      | 0        | 5  |          |    |      |             |          |    |          |         |      |           |          |    |          |    |   |   |
|      | 華人文學      |          |    | 3        | 3  |      |             |          |    |          |         |      |           |          |    |          |    |   |   |
|      | 華人文化      |          |    | 3        | 3  |      |             |          |    |          |         |      |           |          |    |          |    |   |   |
|      | 台灣生活與法律   |          |    | 2        | 2  |      |             |          |    |          |         |      |           |          |    |          |    |   |   |
| 台灣文化 |           |          | 2  | 2        |    |      |             |          |    |          |         |      |           |          |    |          |    |   |   |
| 小計   |           | 6        | 17 | 11       | 12 | 小計   |             | 0        | 0  | 0        | 0       | 小計   |           | 2        | 2  | 2        | 2  |   |   |
| 院必修  | 科技英文(一)   | 2        | 2  |          |    | 院必修  |             |          |    |          |         | 院必修  | 科技英文(三)   | 2        | 2  |          |    |   |   |
|      | 工程倫理      | 2        | 2  |          |    |      |             |          |    |          | 科技英文(四) |      |           |          | 2  | 2        |    |   |   |
|      | 科技英文(二)   |          |    | 2        | 2  |      |             |          |    |          |         |      |           |          |    |          |    |   |   |
|      | 物理與物理實驗   |          |    | 2        | 3  |      |             |          |    |          |         |      |           |          |    |          |    |   |   |
| 小計   |           | 4        | 4  | 4        | 5  | 小計   |             | 0        | 0  | 0        | 0       | 小計   |           | 2        | 2  | 2        | 2  |   |   |
| 專業必修 | 應用數學(一)   | 2        | 2  |          |    | 專業必修 | 產業實務實習(一)   | 9        | 9  |          |         | 專業必修 | 電路學(二)    | 3        | 3  |          |    |   |   |
|      | 應用數學(二)   |          |    | 2        | 2  |      | 產業實務實習(二)   |          |    | 9        | 32      |      | 電路實習(二)   | 1        | 2  |          |    |   |   |
|      | 創意工程實務    | 3        | 3  |          |    |      |             |          |    |          | 電機機械    |      | 3         | 3        |    |          |    |   |   |
|      | 基本電學與電學實驗 | 2        | 3  |          |    |      |             |          |    |          | 電機機械實習  |      | 1         | 2        |    |          |    |   |   |
|      | 人工智慧概論    |          |    | 3        | 3  |      |             |          |    |          | 數位邏輯設計  |      | 3         | 3        |    |          |    |   |   |
|      | 電路學(一)    |          |    | 3        | 3  |      |             |          |    |          | 電子學(一)  |      | 3         | 3        |    |          |    |   |   |
|      | 電路實習(一)   |          |    | 1        | 2  |      |             |          |    |          | 電子實習(一) |      | 1         | 2        |    |          |    |   |   |
|      |           |          |    |          |    |      |             |          |    |          | 電子學(二)  |      |           |          | 3  | 3        |    |   |   |
| 小計   |           | 7        | 8  | 9        | 10 | 小計   |             | 9        | 9  | 9        | 32      | 小計   |           | 15       | 18 | 4        | 5  |   |   |
| 專業選修 | 電機導論      |          |    | 3        | 3  | 專業選修 | 基本電路技術      | 2        | 2  |          |         | 專業選修 | 微處理機實務    | 3        | 3  |          |    |   |   |
|      | 電腦網路      |          |    | 3        | 3  |      | 電子電路技術      |          |    | 2        | 2       |      | 電腦網路實務    | 3        | 3  |          |    |   |   |
|      | 微處理機應用    |          |    | 3        | 3  |      | 微處理機應用      |          |    | 3        | 3       |      | 物聯網系統實務   | 3        | 3  |          |    |   |   |
|      | 能源與應用     |          |    | 3        | 3  |      | 行動運算實務      |          |    | 3        | 3       |      | 半導體元件     | 3        | 3  |          |    |   |   |
| 必修合計 |           | 3        | 4  | 3        | 3  | 專業選修 | App程式設計     |          |    | 3        | 3       | 專業選修 | 廠務概論      | 3        | 3  |          |    |   |   |
|      |           |          |    |          |    |      | 真空技術實務      |          |    | 3        | 3       |      | 電路佈線實務    |          |    | 3        | 3  |   |   |
|      |           |          |    |          |    |      | 複合材料與實務     |          |    | 3        | 3       |      | 可程式控制器    |          |    | 3        | 3  |   |   |
|      |           |          |    |          |    |      | 平面顯示器概論     |          |    | 3        | 3       |      | 電力系統      |          |    | 3        | 3  |   |   |
|      |           |          |    |          |    |      | 工程專業術語實務    |          |    | 3        | 3       |      | 機電整合      |          |    | 3        | 3  |   |   |
|      |           |          |    |          |    |      | 積體電路封裝導論    |          |    | 3        | 3       |      | 電力電子學     |          |    | 3        | 3  |   |   |
|      |           |          |    |          |    |      | 土木工程專業術語(一) |          |    | 2        | 2       |      | 太陽能發電系統監控 |          |    | 3        | 3  |   |   |
|      |           |          |    |          |    |      | 材料化學        |          |    | 2        | 2       |      | 廠務設計      |          |    | 3        | 3  |   |   |
| 必修合計 |           |          |    |          |    |      | 必修合計        |          | 9  | 9        | 9       |      | 32        | 必修合計     |    | 19       | 22 | 8 | 9 |
|      |           |          |    |          |    |      |             |          |    |          |         |      |           |          |    |          |    |   |   |

| 學年度  |             | 115      |    | 116      |    |
|------|-------------|----------|----|----------|----|
| 科目   |             | FEB 2027 |    | SEP 2027 |    |
| 學分   | 時數          | 學分       | 時數 | 學分       | 時數 |
| 校必修  | 小計          |          |    |          |    |
|      |             |          |    |          |    |
| 院必修  | 小計          |          |    |          |    |
|      |             |          |    |          |    |
| 專業必修 | 小計          | 0        | 0  | 0        | 0  |
|      |             |          |    |          |    |
| 專業選修 | 產業實務實習(三)   | 9        | 32 |          |    |
|      | 創新與發明       | 3        | 3  |          |    |
|      | 人工智慧-深度學習   | 3        | 3  |          |    |
|      | RFID概論      | 3        | 3  |          |    |
|      | 手持式衛星導航系統   | 3        | 3  |          |    |
|      | 電動機控制       | 3        | 3  |          |    |
|      | 電動機控制實務     | 3        | 3  |          |    |
|      | ACAD電腦繪圖實務  | 3        | 3  |          |    |
|      | 電力電子實務      | 3        | 3  |          |    |
|      | 電磁學         | 3        | 3  |          |    |
|      | 圖控程式設計      | 3        | 3  |          |    |
|      | Python程式應用  | 3        | 3  |          |    |
|      | Python與機器學習 | 3        | 3  |          |    |
|      | 生成式人工智慧與應用  | 3        | 3  |          |    |
|      | 光譜分析        | 3        | 3  |          |    |
|      | 工程專業術語實務    | 3        | 3  |          |    |
|      | 產業實務實習(四)   |          |    | 9        | 32 |
|      | RFID電磁相容與檢測 |          |    | 3        | 3  |
|      | 工業管理        |          |    | 3        | 3  |
|      | 系統動態學       |          |    | 3        | 3  |
|      | 影像處理實務      |          |    | 3        | 3  |
|      | 電磁相容實務      |          |    | 3        | 3  |
|      | 電磁波應用       |          |    | 3        | 3  |
|      | 太陽能工程       |          |    | 3        | 3  |
|      | 行動通訊概論      |          |    | 3        | 3  |

明新科技大學電機系  
課務規劃委員會章

電機工程系  
系主任 廖建興

半導體學院  
院長 陳啟文

科目類別：

共同科目：校必修

通識科目：分類通識

專業科目：院必修、專業必修、專業選修

注意事項：

- 1.最低畢業學分：128 學分；必修學分：86 學分  
選修學分：42 學分（選修學分含跨系選修學分）
- 2.學生應修習華語輔導課程(0學分5小時)，並於第一學年上學期實施。
- 3.本系允許跨系選修學分，為本系專業選修學分不得低於 30 學分。
- 4.表列選修課程僅供參考，依實際狀況調整。
- 5.校外實習課程：產業實務實習(一)(二)(三)(四)，一學分至多80小時。產業實務實習(一)、(二)實際實習時數每週32-36小時，產業實務實習(三)、(四)實際實習時數每週32-40小時。
- 6.相關辦法依「本校電機工程系國際學生產學合作專班校外實習教學實施要點」辦理。

**MUST Curriculum Planning for Undergraduate Students of Academic Year 2023-2027**  
Department of Electrical Engineering

| Year                                 |                                         | 112      |           | 113       |           | Year                                 |                                                | 113      |          | 114      |          | Year                                 |                                                            | 114       |           | 115      |          |
|--------------------------------------|-----------------------------------------|----------|-----------|-----------|-----------|--------------------------------------|------------------------------------------------|----------|----------|----------|----------|--------------------------------------|------------------------------------------------------------|-----------|-----------|----------|----------|
|                                      |                                         | FEB 2024 |           | SEP 2024  |           |                                      |                                                | FEB 2025 |          | SEP 2025 |          |                                      |                                                            | FEB 2026  |           | SEP 2026 |          |
|                                      | Course                                  | Cr.      | hr.       | Cr.       | hr.       |                                      | Course                                         | Cr.      | hr.      | Cr.      | hr.      |                                      | Course                                                     | Cr.       | hr.       | Cr.      | hr.      |
| MUST Core Required Courses           | Physical Education                      | 1        | 2         | 1         | 2         | MUST Core Required Courses           |                                                |          |          |          |          | MUST Core Required Courses           | Taiwan Life and Law                                        | 2         | 2         | 2        | 2        |
|                                      | Chinese Pinyin & Pronunciation Practice | 1        | 2         |           |           |                                      |                                                |          |          |          |          |                                      | Taiwanese Art                                              |           |           |          |          |
|                                      | Chinese Listening Practice              | 1        | 2         |           |           |                                      |                                                |          |          |          |          |                                      |                                                            |           |           |          |          |
|                                      | Chinese Conversation Practice           | 1        | 2         |           |           |                                      |                                                |          |          |          |          |                                      |                                                            |           |           |          |          |
|                                      | Chinese Reading and Comprehension       | 1        | 2         |           |           |                                      |                                                |          |          |          |          |                                      |                                                            |           |           |          |          |
|                                      | Chinese Writing Practice                | 1        | 2         |           |           |                                      |                                                |          |          |          |          |                                      |                                                            |           |           |          |          |
|                                      | Chinese Tutoring                        | 0        | 5         |           |           |                                      |                                                |          |          |          |          |                                      |                                                            |           |           |          |          |
|                                      | Chinese Literature                      |          |           | 3         | 3         |                                      |                                                |          |          |          |          |                                      |                                                            |           |           |          |          |
|                                      | Chinese Culture                         |          |           | 3         | 3         |                                      |                                                |          |          |          |          |                                      |                                                            |           |           |          |          |
|                                      | Taiwanese Society                       |          |           | 2         | 2         |                                      |                                                |          |          |          |          |                                      |                                                            |           |           |          |          |
|                                      | Taiwanese Culture                       |          |           | 2         | 2         |                                      |                                                |          |          |          |          |                                      |                                                            |           |           |          |          |
| <b>Subtotal</b>                      |                                         | <b>6</b> | <b>17</b> | <b>11</b> | <b>12</b> | <b>Subtotal</b>                      |                                                | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>Subtotal</b>                      |                                                            | <b>2</b>  | <b>2</b>  | <b>2</b> | <b>2</b> |
| School Professional Required Courses | Technology English(I)                   | 2        | 2         |           |           | School Professional Required Courses |                                                |          |          |          |          | School Professional Required Courses | Technology English(III)                                    | 2         | 2         |          |          |
|                                      | Technology English(II)                  |          |           | 2         | 2         |                                      |                                                |          |          |          |          |                                      | Technology English(IV)                                     |           |           | 2        | 2        |
|                                      | Ethics for Engineers                    |          |           | 2         | 2         |                                      |                                                |          |          |          |          |                                      |                                                            |           |           |          |          |
|                                      | Physics Theory and Experiment           |          |           | 2         | 3         |                                      |                                                |          |          |          |          |                                      |                                                            |           |           |          |          |
| <b>Subtotal</b>                      |                                         | <b>2</b> | <b>2</b>  | <b>6</b>  | <b>7</b>  | <b>Subtotal</b>                      |                                                | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>Subtotal</b>                      |                                                            | <b>2</b>  | <b>2</b>  | <b>2</b> | <b>2</b> |
| compulsory courses                   | Applied Mathematics(I)                  | 2        | 2         |           |           | compulsory courses                   | Lab of Property Practice(I)                    | 9        | 9        |          |          | compulsory courses                   | Electric Circuit(II)                                       | 3         | 3         |          |          |
|                                      | Introduction to Artificial Intelligence |          |           | 3         | 3         |                                      | Lab of Property Practice(II)                   |          |          | 9        | 32       |                                      | Electric Circuit Lab(II)                                   | 1         | 2         |          |          |
|                                      | Applied Mathematics(II)                 |          |           | 2         | 2         |                                      |                                                |          |          |          |          |                                      | Electrical Machinery                                       | 3         | 3         |          |          |
|                                      | Creative Engineering Practice           | 3        | 3         |           |           |                                      |                                                |          |          |          |          |                                      | Electrical Machinery Lab                                   | 1         | 2         |          |          |
|                                      | Basic Circuit Theory and Experiment     | 2        | 3         |           |           |                                      |                                                |          |          |          |          |                                      | Digital Logic Design                                       | 3         | 3         |          |          |
|                                      | Electric Circuit(I)                     |          |           | 3         | 3         |                                      |                                                |          |          |          |          |                                      | Electronics (I)                                            | 3         | 3         |          |          |
|                                      | Electric Circuit Lab(I)                 |          |           | 1         | 2         |                                      |                                                |          |          |          |          |                                      | Electronic Lab (I)                                         | 1         | 2         |          |          |
| <b>Subtotal</b>                      |                                         | <b>7</b> | <b>8</b>  | <b>9</b>  | <b>10</b> | <b>Subtotal</b>                      |                                                | <b>9</b> | <b>9</b> | <b>9</b> | <b>9</b> | <b>Subtotal</b>                      |                                                            | <b>15</b> | <b>18</b> | <b>4</b> | <b>5</b> |
| Elective Courses                     | Introduction to Electric Machines       |          |           | 3         | 3         | Elective Courses                     | Basic Circuit Techniques                       | 2        | 2        |          |          | Elective Courses                     | Microprocessor Practice                                    | 3         | 3         |          |          |
|                                      | Computer Network Practice               |          |           | 3         | 3         |                                      | Electronic and Circuit Techniques              |          |          | 2        | 2        |                                      | Computer Network Practice                                  | 3         | 3         |          |          |
|                                      | Micro-computer Application              |          |           | 3         | 3         |                                      | Micro-computer Application                     |          |          | 3        | 3        |                                      | Semiconductor Components                                   | 3         | 3         |          |          |
|                                      | The Applications of Energy              |          |           | 3         | 3         |                                      | Mobile Computing Practice                      |          |          | 3        | 3        |                                      | Introduction to Factory Affairs                            | 3         | 3         |          |          |
| Elective Courses                     |                                         |          |           |           |           |                                      | App Programming                                |          |          | 3        | 3        |                                      | Internet of Things System Practice                         | 3         | 3         |          |          |
|                                      |                                         |          |           |           |           |                                      | Practical Vacuum Technology                    |          |          | 3        | 3        |                                      | Circuit Layout Practice                                    |           |           | 3        | 3        |
|                                      |                                         |          |           |           |           |                                      | Composite Materials and Applications           |          |          | 3        | 3        |                                      | Programmable Logic Controller                              |           |           | 3        | 3        |
|                                      |                                         |          |           |           |           |                                      | Principles of Flat-Panel Displays and Practice |          |          | 3        | 3        |                                      | Power System                                               |           |           | 3        | 3        |
|                                      |                                         |          |           |           |           |                                      | Engineering terminology                        |          |          | 3        | 3        |                                      | Computer Hardware Repair Practice                          |           |           | 3        | 3        |
|                                      |                                         |          |           |           |           |                                      | Introduction to Integrated Circuit Packaging   |          |          | 3        | 3        |                                      | Power Electronics                                          |           |           | 3        | 3        |
|                                      |                                         |          |           |           |           |                                      | Civil Engineering Terminology (I)              |          |          | 2        | 2        |                                      | Mechatronics                                               |           |           | 3        | 3        |
|                                      |                                         |          |           |           |           |                                      | Materials Chemistry                            |          |          | 2        | 2        |                                      | Supervisory and Control of Solar Energy Generation Systems |           |           | 3        | 3        |
|                                      |                                         |          |           |           |           |                                      |                                                |          |          |          |          |                                      | Factory Design                                             |           |           | 3        | 3        |
|                                      |                                         |          |           |           |           |                                      |                                                |          |          |          |          |                                      | Introduction of Firefighting                               |           |           | 3        | 3        |
|                                      |                                         |          |           |           |           |                                      |                                                |          |          |          |          |                                      |                                                            |           |           |          |          |
|                                      |                                         |          |           |           |           |                                      |                                                |          |          |          |          |                                      |                                                            |           |           |          |          |
|                                      |                                         |          |           |           |           |                                      |                                                |          |          |          |          |                                      |                                                            |           |           |          |          |

| Year                                 |                                         | 115      |          | 116      |          |
|--------------------------------------|-----------------------------------------|----------|----------|----------|----------|
|                                      |                                         | FEB 2027 |          | SEP 2027 |          |
|                                      | Course                                  | Cr.      | hr.      | Cr.      | hr.      |
| MUST Core Required Courses           |                                         |          |          |          |          |
|                                      | <b>Subtotal</b>                         | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> |
| School Professional Required Courses |                                         |          |          |          |          |
|                                      | <b>Subtotal</b>                         | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> |
| compulsory courses                   |                                         |          |          |          |          |
|                                      | <b>Subtotal</b>                         | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> |
| Elective Courses                     | Lab of Property Practice(III)           | 9        | 32       |          |          |
|                                      | Innovation and Invention                | 3        | 3        |          |          |
|                                      | Artificial Intelligence-Deep Learning   | 3        | 3        |          |          |
|                                      | Power Electronics Practice              | 3        | 3        |          |          |
|                                      | Hand-held Satellite Navigation System   | 3        | 3        |          |          |
|                                      | Motor Control                           | 3        | 3        |          |          |
|                                      | Motor Control Practice                  | 3        | 3        |          |          |
|                                      | ACAD Computer Graphics Practice         | 3        | 3        |          |          |
|                                      | The Introduction of RFID Systems        | 3        | 3        |          |          |
|                                      | Electromagnetism                        | 3        | 3        |          |          |
|                                      | Labview Programming Design              | 3        | 3        |          |          |
|                                      | Python Program Application              | 3        | 3        |          |          |
|                                      | Machine Learning with Python            | 3        | 3        |          |          |
|                                      | Generative AI and Applications          | 3        | 3        |          |          |
|                                      | Spectral analysis                       | 3        | 3        |          |          |
|                                      | Engineering terminology                 | 3        | 3        |          |          |
|                                      | Lab of Property Practice(IV)            |          |          | 9        | 32       |
|                                      | RFID EM Compatibilities and Inspections |          |          | 3        | 3        |
|                                      | Industrial Management                   |          |          | 3        | 3        |
|                                      | System Dynamics                         |          |          | 3        | 3        |
|                                      | Image-Processing Practice               |          |          | 3        | 3        |
|                                      | Electromagnetic Wave Applications       |          |          | 3        | 3        |
|                                      | Electromagnetic Compatibility Practice  |          |          | 3        | 3        |
|                                      | Introduction to Mobile Communications   |          |          | 3        | 3        |
|                                      | Solar Energy Engineering                |          |          | 3        | 3        |

明新科技大學電機系  
課務規劃委員會章

電機工程系  
系主任 廖建興

半導體學院  
院長 陳啟文

Cr./hr.=Credit/hour

Remarks:

- 1.Minimum credits required for graduation: 128 credits including compulsory 84 credits and elective 44 credits (including the interdepartmental elective credits).
- 2.The elective courses listed in the tables are subject to adaptation when necessary.
- 3.Inter-departmental elective credits are transferable. Professional elective course credits shall not be fewer than 32 .
- 4.Off-campus practice courses: Industry Internship (I)(II)(III)(IV), 1 credit requires at most 80 hours of off-campus practice courses.  
For Industry Internship (I) and (II), the actual internship hours range from 32 to 36 hours per week.  
For Industry Internship (III) and (IV), the actual internship hours range from 32 to 40 hours per week.