**元智大學電機通訊學院 與 School of Electrical Engineering, Universitas Telkom 雙聯學制**

**元智大學 電機通訊學院英語學士班 必修科目表**

**（114學年度入學新生適用）**

**College of Electrical and Communication Engineering, Yuan Ze University and School of Electrical Engineering, Universitas Telkom  
Dual Degree Program**

**International Bachelor Program in Electrical and Communication Engineering for at Yuan Ze University**

**List of Compulsory Courses**

**（Applicable to Students Admitted in Academic Year of 2025.）**

114.6.4 一一三學年度第六次教務會議通過

Passed by the 6th Academic Affairs Meeting, Academic Year 2024, on June 4, 2025

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 學年 (Academic Year)  學期(Semester)  科目(Course | 第一學年1st Academic Year | | 第二學年2nd Academic Year | | 第三學年3rd Academic Year | | 第四學年4th Academic Year | |
| 上Fall | 下Spring | 上Fall | 下Spring | 上Fall | 下Spring | 上Fall | 下Spring |
| 必  修  科  目  Compulsory Courses  (9 ) |  |  |  |  |  | 畢業專題 Graduation Project (3)  EEA496 | 畢業專題 Graduation Project (3)  EEB332 | 畢業專題 Graduation Project (3)  EI302 |
| 學期學分小計Credit each semester | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 |
| 備註Remarks | 1. 括弧內數字為學分數。 Parenthesized numbers are course credits. 2. 畢業學分128學分，雙聯學生於本班應取得三分之一學分以上，即為43學分。其中包含必修9學分、選修24學分及自由選修10學分(通識教育科目學分只採計至多4學分，超修之學分將不列入畢業學分。) Required credits for graduation is 128 credits, Dual-degree students must earn at least one-third of the required credits for graduation, which is 43 credits, including 9 credits for compulsory ccourses, 24 credits for elective courses, 10 credits for free elective courses (The maximum credits for general education courses is 4, the exceeding credits will not be counted.). 3. **畢業學分**：**43學分** (通識教育科目學分只採計至多4學分，超修之學分將不列入畢業學分。) Required credits for graduation: at least 43 credits, (The maximum credits for general education courses is 4, the exceeding credits will not be counted.) 4. **必修：9學分** Compulsory Courses: 9 credits 5. **選修：至少 24學分。** Elective Courses: at least 24 credits. 6. **自由選修**：**10學分**。Free Elective Courses: 10 credit. 7. 修習碩士班課程以大三以上學生為限，且不得修習碩士在職專班課程。 Master's degree courses are limited to students in their third year or above, and students are not allowed to take courses from the Executive Master program. | | | | | | | |

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**元智大學電機通訊學院 與 School of Electrical Engineering, Universitas Telkom 雙聯學制**

**元智大學 電機通訊學院英語學士班 選修科目表**

**（113學年度入學新生適用）**

**College of Electrical and Communication Engineering, Yuan Ze University**

**And**

**School of Electrical Engineering, Universitas Telkom**

**Dual Degree Program**

**International Bachelor Program in Electrical and Communication Engineering for at Yuan Ze University**

**List of Elective Courses**

**（Applicable to Students Admitted in Academic Year of 2025）**

114.\*\*.\*一一三學年度第\*次教務會議通過

Passed by the \*th Academic Affairs Meeting, Academic Year 2024, on \*\*\*, 2025

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 學年Academic Year  學期Semester  科目Course | 第一學年  1st Academic Year | | 第二學年  2nd Academic Year | | 第三學年  3rd Academic Year | | 第四學年  4th Academic Year | |
| 上  Fall | 下  Spring | 上  Fall | 下  Spring | 上  Fall | 下  Spring | 上  Fall | 下  Spring |
| 電子相關  領域  Electronics-related Field |  |  | 資料結構  Data Structures (3) EI219 | 電子學(二) Electronics(II)  (3) EI202 | 自動控制（一）  Automatic Control(I)  (3) EEA351 | 物聯網應用技術與實作（一）  IoT Ecosystem and Applications(I)  (3) EEA494 | 機器人概論Introduction to Robotics  (3) EI412 |  |
|  |  | 機器學習導論Introduction to Machine Learning  (3) EI228 | 離散數學Discrete Mathematics  (3) EI218 | 數位信號處理實驗  Digital Signal Processing Lab.  (1) EEA387 | 半導體元件物理Semiconductor Devices Physics  (3) EI312 | 半導體製程技術Semiconductor Processing Technology (3) EI413 |  |
|  |  |  | 多媒體通訊概論  Introduction to  Multimedia Communications  (3) EI224 | 超大型積體電路設計導論  Introduction to VLSI  (3) EI309 | 深度學習使用Python  Deep Learning with Python  (3) EI320 | 演化計算  Evolutionary Computation  (3) EI415 |  |
|  |  |  | 雲端計算概論 Introduction to Cloud Computing  (3) EI226 | 自主移動機器人 Autonomous Mobile Robot (3) EI319 | 電動載具技術  Electric Vehicles Technology  (3) EI326 | 半導體加工技術  Semiconductor Processing Technology  (3) EI417 |  |
|  |  |  |  | 數位信號處理概論  Introduction of Digital Signal Processing  (3) EI404 | 再生能源轉換及儲存系統  Renewable Energy Conversion & Storage Systems  (3) EI328 |  |  |
|  |  |  |  |  | 最佳化與啟發式演算法  Optimization and Heuristics  (3) EI330 |  |  |
|  |  |  |  |  | 電力電子  Power Electronics  (3) EI406 |  |  |
| 電信相關  領域  Telecommunications -related Field |  |  | 機器學習導論Introduction to Machine Learning (3) EI228 | 作業系統  Operation Systems (3) EEB310 | 射頻工程導論  Introduction to RF engineering  (1) EEB327 | 通訊實驗  Communications Lab.  (1) EEB320 | 微電腦智慧應用  Intelligent Microcontroller Applications  (3) EEB439 | 行動通訊概論  Introduction to Mobile Communications (3) EEB413 |
|  |  |  | 多媒體通訊概論  Introduction to  multimedia communications  (3) EEB322 | 通訊系統Communications System  (3) EI301 | 天線設計與量測實驗  Experiment of Antenna Design and Measurement  (3) EEB414 |  |  |
|  |  |  | 半導體光學  Semiconductor Optics  (3) EI215 | 自主移動機器人 Autonomous Mobile Robot (3) EI319 | 數位通訊  Digital Communications  (3) EI304 |  |  |
|  |  |  |  | 數位信號處理概論  Introduction of Digital Signal Processing  (3) EI404 | 電磁波Electromagnetic Waves (3) EI306 |  |  |
|  |  |  |  |  | 通訊電子學Communication Electronics (3) EI401 |  |  |
| 英文精進  English Booster |  |  | 科技英文寫作 Science and Technology English Writing  (2) EI209 | 科技英文簡報 Science and Technology English Presentation  (2) EI210 |  |  |  |  |
| 備註Remarks | 1. 括弧內數字為學分數。 Parenthesized numbers are course credits. | | | | | | | |

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