**元智大學 資訊工程學系 選修科目表**

**Department of Computer Science and Engineering**

**Yuan Ze University**

**List of Elective Courses**

**（112學年度入學新生適用For students admitted in academic year 2023）**

112.04.19 一一一學年度第六次教務會議通過

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

113.06.05 一一二學年度第九次教務會議修訂通過

Amended by the 9th Academic Affairs Meeting, Academic Year 2023, on June 5, 2024

| 學年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 |
| 系選修科目  Elective Courses | Ｗｅｂ程式設計  Web Programming  CS380(3) | 網站程式設計實務  Website Programming Practice  CS151(3) | 視窗程式設計  Windows Programming  CS249(3) | Ｊａｖａ概論  Introduction to Java  CS303(3) | 生物學概論  Introduction to Biology  CS341(3) | 專業實習（一）  Practical Training(I)  CS400(3) | 專業實習（三）  Practical Training(III)  CS426(3) | 網路實習（二）  Network Lab(II)  CS424(3) |
|  | \*普通物理學（下）  General Physics(II)  CS145(3) | \*組合數學  Combinatory Mathematics  CS421(3) | \*視窗程式設計（二）  Windows Programming(II)  CS324(3) | \*車載資料分析與服務  Mobile Data Analysis and Services  CS304(3) | 專業實習（二）  Practical Training(II)  CS415(3) | 專業實習（四）  Practical Training(IV)  CS427(3) | \*數值方法  Numerical Methods  CS353(3) |
|  |  | \*電子電路（二）  Electronic Circuits(II)  CS235(3) | 程式語言  Programming Languages  CS222(3) | 超大型積體電路設計導論  Introduction to VLSI Design  CS378(3) | 專題製作（一）  Special Project(I)  CS416(3) | 專題製作（二）  Special Project(II)  CS417(3) | \*無線通訊與行動計算概論  Introduction to Wireless Communications and Mobile Computing  CS422(3) |
|  |  | \*科技英文  Technical English  CS419(2) | \*高等程式設計  Advanced Programming  CS257(2) | 內嵌式系統設計與實習  Embedded System Design and Practice  CS379(3) | 生物資訊概論  Introduction to Bioinformatics  CS340(3) | 網路實習（一）  Network Lab(I)  CS423(3) | 影像處理概論  Introduction to Image Processing  CS362(3) |
|  |  | \*網路程式設計  Network Programming  CS256(3) | 無線網路概論  Introduction to Wireless Internet  CS335(3) | 計算機網路概論  Introduction to Computer Networks  CS311(3) | ＵＮＩＸ系統概論  Introduction to UNIX System  CS312(3) | \*３Ｄ動畫程式設計  3D Animation Programming  CS317(3) | \*晶片設計自動化實習  IC Design Automation Lab.  CS409(3) |
|  |  | \*工程數學  Engineering Mathematics  CS205(3) |  | 計算機圖學概論  Introduction to Computer Graphics  CS314(3) | \*數位電視概論  Introduction to Digital Television  CS315(3) | 資料庫系統概論  Introduction to Database System  CS352(3) | \*資料探勘實務  Data Mining Practice  CS406(3) |
|  |  |  |  | \*電子商務概論  Electronic Commerce  CS329(3) | 軟體工程  Software Engineering  CS377(3) | 電腦與網路安全概論  Introduction to Computer and Network Security  CS354(3) | \*智慧型科技應用  Information and Communication Technology for Intelligent Applications  CS410(3) |
|  |  |  |  | \*自動機理論概論  Introduction to Automata Theory  CS319(3) | 積體電路設計自動化導論  Introduction to IC Design Automation  CS338(3) | 人機互動設計概論  Introduction to Human-Computer Interaction Design  CS313(3) | 浸潤式資訊課程-國際經驗  Immersive Program in Computer Science: International Experience  CS460(1) |
|  |  |  |  | 微型應用程式設計實務  Mobile Application Programming  CS322(3) | 開放平台軟體  Open Platform Software  CS381(3) | \*晶片設計與驗證實習  IC Design and Verification Lab.  CS408(3) |  |
|  |  |  |  | \*R軟體與資料探勘  R Software and Data Mining  CS333(3) | 多媒體系統概論  Introduction to Multimedia System  CS401(3) | 專題製作（三）  Special Project(III)  CS428(4) |  |
|  |  |  |  | 雲端運算與服務  Cloud Computing and Services  CS337(3) | \*作業系統（二）  Introduction Operation System(II)  CS302(3) | 資料探勘  Data Mining  CS412(3) |  |
|  |  |  |  | 編譯程式概論  Introduction to Compiler  CS321(3) | \*連網型系統晶片之嵌入式軟體  Networked SOC Embedded Software  CS301(3) |  |  |
|  |  |  |  | 智慧物聯網  Artificial Intelligence of Things  CS349(3) | 敏捷軟體開發  Agile Software Development  CS382(3) |  |  |
|  |  |  |  |  | 醫學概論  Introduction to Clinical Medicine  CS346(3) |  |  |
|  |  |  |  |  | \*新型態網路  Next Generation Networking  CS328(3) |  |  |
|  |  |  |  |  | \*遊戲引擎理論與實務  Theory and Practice of Game Engine  CS330(3) |  |  |
|  |  |  |  |  | 大數據科學導論  Big Data Science  CS332(3) |  |  |
|  |  |  |  |  | \*智慧聯網  Internet of Things  CS339(3) |  |  |
|  |  |  |  |  | 大數據創新應用專題  Special Projects of Innovative Big Data  CS343(3) |  |  |
|  |  |  |  |  | 人工智慧概論  Introduction to Artificial Intelligence  CS310(3) |  |  |
| 備註  Remarks | 1. 考量師資因素，未來可能有部份課程無法正常開課。目前未能正常開課課程以\*表示。 Courses not regularly available are marked with \*. 2. 為增進學生英文能力，鼓勵選修英語授課課程(含英專班)，其修習之課程科目及學分數之認抵需依學系規定辦理。 To improve students’ English, students are encouraged to take the courses in English offered by any departments. However, recognition of these courses and their credits is determined by the rules of each adopting department. | | | | | | | |

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