114 學年度 系所課程地圖
Department Curriculum Map for the 2025Academic Year

系所概要 Department	
系所名稱 Department Name	資訊工程學系 Department of Computer Science and Engineering
班別 Division	大學部 Bachelor's Program

教育目標 Education Goals	編號 Number	項目內容 Content	
	1	培養具備資訊理論、硬體、軟體、網路多媒體與資訊應用專長之資訊人才。Cultivate an information talent mastering information theory and familiar with computer software/hardware, multi-media networks and information application.	
	2	培養具備理論基礎與實作能力的資訊人才。Cultivate an information talent with theoretical basis and implementation ability.	
	3	培養具備自我挑戰與終身學習能力之人才。Cultivate a talent of the abilities in self-challenge and lifelong learning.	
學生核心能力 Student Core Competencies	編號 Number	項目內容 Content	對應之教育目標編號 Corresponding Education Goal Number
	A	具備資訊科學素養、資訊理論與數學分析之能力 Having abilities on computer science literacy, information theory, and mathematical analysis.	13
	B	具備分析、設計與實作資訊硬體系統之能力 Having abilities of analyzing, designing, and implementing IT hardware systems.	13
	C	具備分析、設計與實作資訊軟體系統之能力 Having abilities of analyzing, designing, and implementing IT software systems.	13
	D	具備分析、設計與整合資訊應用系統之能力 Having abilities of analyzing, designing, and integrating IT application systems.	23
	E	具備分析、設計與實作資訊網路與多媒體系統之能力 Having abilities of analyzing,	12

※附註 Note：

1.各系所所屬之班別，含學士班、碩士班、博士班等，請分別填寫。

1.Complete the map separately for each division, including Bachelor's, Master's, and Doctoral program.

　例如：資管學士班需填寫表二及表三；資管碩士班也須填寫表二及表三。

　For example, Forms 2 and 3 must be completed for Bachelor's program in Management Information Systems, and also for Master's program in for Bachelor's program in Management Information Systems.

2.教育目標及核心能力之代號皆以英文字母大寫為主。

2.Codes for Education Goals and Core Competencies must be in uppercase English alphabet letters.

3.可依不同班（組）別填寫教育目標及核心能力。

3.Education Goals and Core Competencies can be specific to the division in question.

單位主管簽章 Head of Planning Division：　　　　　　承辦人簽章 Signature of Responsible Person：

112 年 01 月 11 日

		designing, and implementing information network and multimedia systems.	
	F	具備自我學習、溝通協調與團隊合作之能力 Having abilities of self-learning, communicating and coordinating team work.	2

※附註 Note：

1.各系所所屬之班別，含學士班、碩士班、博士班等，請分別填寫。

1.Complete the map separately for each division, including Bachelor's, Master's, and Doctoral program.

　例如：資管學士班需填寫表二及表三；資管碩士班也須填寫表二及表三。

　For example, Forms 2 and 3 must be completed for Bachelor's program in Management Information Systems, and also for Master's program in for Bachelor's program in Management Information Systems.

2.教育目標及核心能力之代號皆以英文字母大寫為主。

2.Codes for Education Goals and Core Competencies must be in uppercase English alphabet letters.

3.可依不同班（組）別填寫教育目標及核心能力。

3.Education Goals and Core Competencies can be specific to the division in question.

單位主管簽章 Head of Planning Division：　　　　　　　　　承辦人簽章 Signature of Responsible Person：

112 年 01 月 11 日

課程規劃表 Curriculum Plan

◎規劃單位 Planning Unit：資訊工程學系 Department of Computer Science and Engineering

課程名稱 Course	規劃要點（附註）Plans (Notes)				對應核心能力編號 Corresponding Education Goal Number	開課單位 Course Offering Unit	備註（開課年級）Remarks（Year of Study）
	1	2	3	4			
院核心課程（若無免填）College Core Courses (not required if none)							
（中文） （英文）							
（中文） （英文）							
必修課程 Required Courses							
（中文）微積分（一） （英文）Calculus(I)	U	A	S	3	A100	應數系 Dept. of Applied Mathematics	1
（中文）微積分（二） （英文）Calculus(II)	U	A	S	3	A100	應數系 Dept. of Applied Mathematics	1
（中文）普通物理學 （英文）General Physics	U	A	S	3	A100	物理系 Dept. of Physics	1 上(1st Semester)
（中文）普通物理學實驗 （英文）General Physics Laboratory	U	B	S	1	A50F50	物理系 Dept. of Physics	1 上(1st Semester)
（中文）計算機程式設計 （英文）Computer Programming	U	A	S	3	C100	資工系 Dept. of Computer Science and Engineering	1
（中文）機率 （英文）Probability	U	A	S	3	A70C10 D10F10	資工系 Dept. of Computer Science and Engineering	1
（中文）物件導向程式設計 （英文）Object-Oriented Programming	U	A	S	3	C100	資工系 Dept. of Computer Science and Engineering	1
（中文）離散數學 （英文）Discrete Mathematics	U	A	S	3	A80D20	資工系 Dept. of Computer Science and Engineering	1

※附註：規劃要點填表說明：（１到４各欄位請填正確代表字母）
Note: Instructions for completing this form are provided below (please provide the correct English alphabet letters in fields 1 to 4)
1：U-學士課程、M-碩士課程、D-博士課程。1: U-Bachelor's program, M-Master's program, D-Doctoral program.
2：A-正課、B-實習課、C-台下指導之科目如學生講述或邀請演講之專題討論、專題研究……等。2:A-Lecture, B-Internship, C-Subjects with private guidance such as student presentations or invited speeches, topic discussions, topic research, etc.
3：S-學期課、Y-學年課。3: S-Semester course, Y-Year-long course.
4：科目（全期或全年）總學分數（請填阿拉伯數字）。4: Total course (full-semester or full-year) credits (in Arabic numerals).

單位主管簽章 Head of Planning Division：　　　　　　承辦人簽章 Signature of Responsible Person：
114 年 01 月 16 日

課程規劃表 Curriculum Plan

◎規劃單位 Planning Unit：資訊工程學系 Department of Computer Science and Engineering

課程名稱 Course	規劃要點（附註）Plans (Notes)				對應核心能力編號 Corresponding Education Goal Number	開課單位 Course Offering Unit	備註（開課年級）Remarks（Year of Study）
	1	**2**	**3**	**4**			
（中文）計算機網路 （英文）Computer Networks	U	A	S	3	A40C30 D30	資工系 Dept. of Computer Science and Engineering	2
（中文）電子電路學 （英文）Electronic Circuits	U	A	S	3	A50B50	資工系 Dept. of Computer Science and Engineering	2
（中文）組合語言與系統程式 （英文）Assembly Language and System Programming	U	A	S	3	A50B50	資工系 Dept. of Computer Science and Engineering	2
（中文）線性代數 （英文）Linear Algebra	U	A	S	3	A100	資工系 Dept. of Computer Science and Engineering	2
（中文）資料結構 （英文）Data Structures	U	A	S	3	A20C30 D30F20	資工系 Dept. of Computer Science and Engineering	2
（中文）邏輯設計 （英文）Logic Design	U	A	S	3	A25B50 D25	資工系 Dept. of Computer Science and Engineering	2
（中文）邏輯設計實驗 （英文）Logic Design Laboratory	U	B	S	1	A10B70 F20	資工系 Dept. of Computer Science and Engineering	2 先修科目：邏輯設計（成績須達40分以上） Pre-requisites: Logic Design (40 points or above)
（中文）演算法 （英文）Introduction to Algorithms	U	A	S	3	A50C40 F10	資工系 Dept. of Computer Science and Engineering	2

※附註：規劃要點填表說明：（１到４各欄位請填正確代表字母）
  Note: Instructions for completing this form are provided below (please provide the correct English alphabet letters in fields 1 to 4)
  １：U-學士課程、M-碩士課程、D-博士課程。1: U-Bachelor's program, M-Master's program, D-Doctoral program.
  ２：A-正課、B-實習課、C-台下指導之科目如學生講述或邀請演講之專題討論、專題研究……等。2:A-Lecture, B-Internship, C-Subjects with private guidance such as student presentations or invited speeches, topic discussions, topic research, etc.
  ３：S-學期課、Y-學年課。3: S-Semester course, Y-Year-long course.
  ４：科目（全期或全年）總學分數（請填阿拉伯數字）。4: Total course (full-semester or full-year) credits (in Arabic numerals).

單位主管簽章 Head of Planning Division：　　　　　　承辦人簽章 Signature of Responsible Person：

114 年 01 月 16 日

課程規劃表 Curriculum Plan

◎規劃單位 Planning Unit：資訊工程學系 Department of Computer Science and Engineering

課程名稱 Course	規劃要點（附註）Plans (Notes)				對應核心能力編號 Corresponding Education Goal Number	開課單位 Course Offering Unit	備註（開課年級）Remarks（Year of Study）
	1	**2**	**3**	**4**			
（中文）計算機組織 （英文）Computer Organization	U	A	S	3	B100	資工系 Dept. of Computer Science and Engineering	3 下(2nd Semester) 先修科目：組合語言與系統程式、邏輯設計 Pre-requisites: Assembly Language and System Programming, Logic Design
（中文）作業系統 （英文）Operating Systems	U	A	S	3	A30C70	資工系 Dept. of Computer Science and Engineering	3
（中文）作業系統實驗 （英文）Operating Systems Lab	U	B	S	1	C70F30	資工系 Dept. of Computer Science and Engineering	3
（中文）資訊專題（一） （英文）Projects in Computer Science（I）	U	C	S	2	A15B15 C15D15 E15F25	資工系 Dept. of Computer Science and Engineering	3 開設 a-h 班 (Class a-h)
（中文）資訊專題（二） （英文）Projects in Computer Science（II）	U	C	S	2	A15B15 C15D15 E15F25	資工系 Dept. of Computer Science and Engineering	4 開設 a-h 班 (Class a-h)

※附註：規劃要點填表說明：（１到４各欄位請填正確代表字母）
Note: Instructions for completing this form are provided below (please provide the correct English alphabet letters in fields 1 to 4)
1：U-學士課程、M-碩士課程、D-博士課程。1: U-Bachelor's program, M-Master's program, D-Doctoral program.
2：A-正課、B-實習課、C-台下指導之科目如學生講述或邀請演講之專題討論、專題研究……等。2:A-Lecture, B-Internship, C-Subjects with private guidance such as student presentations or invited speeches, topic discussions, topic research, etc.
3：S-學期課、Y-學年課。3: S-Semester course, Y-Year-long course.
4：科目（全期或全年）總學分數（請填阿拉伯數字）。4: Total course (full-semester or full-year) credits (in Arabic numerals).

單位主管簽章 Head of Planning Division：　　　　　承辦人簽章 Signature of Responsible Person：

114 年 01 月 16 日

課程規劃表 Curriculum Plan

◎規劃單位 Planning Unit：資訊工程學系 Department of Computer Science and Engineering

課程名稱 Course	規劃要點（附註）Plans (Notes)				對應核心能力編號 Corresponding Education Goal Number	開課單位 Course Offering Unit	備註（開課年級）Remarks（Year of Study）
	1	**2**	**3**	**4**			
選修課程 Elective Courses							
（中文）數據通訊 （英文）Data Communication	U	A	S	3	A40C20 D20E20	資工系 Dept. of Computer Science and Engineering	3
（中文）網路程式設計 （英文）Network Programming	U	A	S	3	A20C40 D40	資工系 Dept. of Computer Science and Engineering	3 上(1st Semester)
（中文）無線網路概論 （英文）Introduction to Wireless Networks	U	A	S	3	E100	資工系 Dept. of Computer Science and Engineering	3 下(2nd Semester)
（中文）個人通訊概論 （英文）Personal Communications Service	U	A	S	3	E70F30	資工系 Dept. of Computer Science and Engineering	3 或(or) 4
（中文）區域網路 （英文）Local Area Networks	U	A	S	3	E100	資工系 Dept. of Computer Science and Engineering	3 或(or) 4
（中文）平行電腦系統導論 （英文）Introduction to Parallel Computer Systems	U	A	S	3	B80C20	資工系 Dept. of Computer Science and Engineering	4
（中文）交連網路導論 （英文）Introduction to Interconnection Networks	U	A	S	3	B80C20	資工系 Dept. of Computer Science and Engineering	4
（中文）嵌入式處理器架構與應用 （英文）Embedded Processor Architecture and Application	U	A	S	3	A10B40 D30F20	資工系 Dept. of Computer Science and Engineering	3 先修科目：邏輯設計、計算機組織或計算機結構，因空間及教材限制，限30人修課 Pre-requisites:

課程規劃表 Curriculum Plan

◎規劃單位 Planning Unit：資訊工程學系 Department of Computer Science and Engineering

課程名稱 Course	規劃要點（附註）Plans (Notes)				對應核心能力編號 Corresponding Education Goal Number	開課單位 Course Offering Unit	備註（開課年級）Remarks（Year of Study）
	1	2	3	4			
							Logic Design, Computer Organization, Computer Architecture (Limit to 30 students)
（中文）電腦輔助設計導論 （英文）Introduction to Computer-Aided Design	U	A	S	3	B70D30	資工系 Dept. of Computer Science and Engineering	4
（中文）電子電路學實驗 （英文）Electronic Circuit Laboratory	U	B	S	1	B60F40	資工系 Dept. of Computer Science and Engineering	2
（中文）超大型積體電路設計導論 （英文）Introduction to VLSI Design	U	A	S	3	B100	資工系 Dept. of Computer Science and Engineering	3
（中文）嵌入式微處理機系統設計 （英文）Embedded Microprocessor System Design	U	A	S	3	B30C30 D20F20	資工系 Dept. of Computer Science and Engineering	4
（中文）電腦繪圖與應用 （英文）Computer Graphics and Applications	U	A	S	3	D50E50	資工系 Dept. of Computer Science and Engineering	4
（中文）色彩科學導論與應用 （英文）Introduction to Color Science with Applications	U	A	S	3	C30D30F40	資工系 Dept. of Computer Science and Engineering	3 或(or) 4 (109-1)名稱變更，原名稱：數位色彩科學導論與應用 Name Change Previous Name: Introduction to Digital Color Science and Applications，先修科目：

※附註：規劃要點填表說明：（1到4各欄位請填正確代表字母）
Note: Instructions for completing this form are provided below (please provide the correct English alphabet letters in fields 1 to 4)
1：U-學士課程、M-碩士課程、D-博士課程。1: U-Bachelor's program, M-Master's program, D-Doctoral program.
2：A-正課、B-實習課、C-台下指導之科目如學生講述或邀請演講之專題討論、專題研究……等。2:A-Lecture, B-Internship, C-Subjects with private guidance such as student presentations or invited speeches, topic discussions, topic research, etc.
3：S-學期課、Y-學年課。3: S-Semester course, Y-Year-long course.
4：科目（全期或全年）總學分數（請填阿拉伯數字）。4: Total course (full-semester or full-year) credits (in Arabic numerals).

單位主管簽章 Head of Planning Division：　　　　　　　　承辦人簽章 Signature of Responsible Person：

114 年 01 月 16 日

課程規劃表 Curriculum Plan

◎規劃單位 Planning Unit：資訊工程學系 Department of Computer Science and Engineering

課程名稱 Course	規劃要點（附註）Plans (Notes)				對應核心能力編號 Corresponding Education Goal Number	開課單位 Course Offering Unit	備註（開課年級）Remarks（Year of Study）
	1	**2**	**3**	**4**			
							計算機程式設計及物件導向程式設計 Pre-requisites: Computer Programming, Object-Oriented Programming
（中文）語音語言處理導論 （英文）Introduction to Speech and Language Processing	U	A	S	3	C40D30 E30	資工系 Dept. of Computer Science and Engineering	3
（中文）成圖技術與應用 （英文）Rendering Techniques and Applications	U	A	S	3	A25C25 D25F25	資工系 Dept. of Computer Science and Engineering	4
（中文）視窗環境程式設計 （英文）Windows Programming	U	A	S	3	A25C25 D25F25	資工系 Dept. of Computer Science and Engineering	3
（中文）動態網頁程式設計 （英文）Dynamic Web Programming	U	A	S	3	A25C25 D25E12 F13	資工系 Dept. of Computer Science and Engineering	2
（中文）信號與系統 （英文）Signals and Systems	U	A	S	3	A50C50	資工系 Dept. of Computer Science and Engineering	3 (107-2)名稱變更，原名稱：訊號與系統 Name Change Previous Name: Signals and System
（中文）數位影像處理導論 （英文）Introduction to Digital Image Processing	U	A	S	3	D50E50	資工系 Dept. of Computer Science and Engineering	3 或(or) 4
（中文）資料壓縮導論	U	A	S	3	A50E50	資工系	3 或(or) 4

※附註：規劃要點填表說明：（１到４各欄位請填正確代表字母）
Note: Instructions for completing this form are provided below (please provide the correct English alphabet letters in fields 1 to 4)
1：U-學士課程、M-碩士課程、D-博士課程。1: U-Bachelor's program, M-Master's program, D-Doctoral program.
2：A-正課、B-實習課、C-台下指導之科目如學生講述或邀請演講之專題討論、專題研究……等。2:A-Lecture, B-Internship, C-Subjects with private guidance such as student presentations or invited speeches, topic discussions, topic research, etc.
3：S-學期課、Y-學年課。3: S-Semester course, Y-Year-long course.
4：科目（全期或全年）總學分數（請填阿拉伯數字）。4: Total course (full-semester or full-year) credits (in Arabic numerals).

單位主管簽章 Head of Planning Division：　　　　　　承辦人簽章 Signature of Responsible Person：
114 年 01 月 16 日

課程規劃表 Curriculum Plan

◎規劃單位 Planning Unit：資訊工程學系 Department of Computer Science and Engineering

課程名稱 Course	規劃要點（附註）Plans (Notes)				對應核心能力編號 Corresponding Education Goal Number	開課單位 Course Offering Unit	備註（開課年級）Remarks（Year of Study）
	1	2	3	4			
（英文）Introduction to Data Compression						Dept. of Computer Science and Engineering	
（中文）計算機架構設計 （英文）Computer Architecture Design	U	A	S	3	B100	資工系 Dept. of Computer Science and Engineering	4 上(1st Semester)
（中文）圖形識別導論 （英文）Introduction to Pattern Recognition	U	A	S	3	A100	資工系 Dept. of Computer Science and Engineering	4
（中文）生物統計學 （英文）Biostatistics	U	A	S	3	A100	資工系 Dept. of Computer Science and Engineering	4
（中文）電腦視覺 （英文）Computer Vision	U	A	S	3	C40D30 E30	資工系 Dept. of Computer Science and Engineering	4
（中文）程式語言 （英文）Programming Languages	U	A	S	3	A20C60 F20	資工系 Dept. of Computer Science and Engineering	2
（中文）正規語言 （英文）Introduction to Formal Languages	U	A	S	3	A100	資工系 Dept. of Computer Science and Engineering	2
（中文）資訊安全導論 （英文）Introduction to Computer Security	U	A	S	3	A25C20 D30E15 F10	資工系 Dept. of Computer Science and Engineering	3
（中文）人工智慧 （英文）Artificial Intelligence	U	A	S	3	A40C60	資工系 Dept. of Computer Science and Engineering	4
（中文）資訊安全與密碼學 （英文）Information Security and Cryptography	U	A	S	3	A60E40	資工系 Dept. of Computer Science and Engineering	4

※附註：規劃要點填表說明：（１到４各欄位請填正確代表字母）
Note: Instructions for completing this form are provided below (please provide the correct English alphabet letters in fields 1 to 4)
１：U-學士課程、M-碩士課程、D-博士課程。1: U-Bachelor's program, M-Master's program, D-Doctoral program.
２：A-正課、B-實習課、C-台下指導之科目如學生講述或邀請演講之專題討論、專題研究……等。2:A-Lecture, B-Internship, C-Subjects with private guidance such as student presentations or invited speeches, topic discussions, topic research, etc.
３：S-學期課、Y-學年課。3: S-Semester course, Y-Year-long course.
４：科目（全期或全年）總學分數（請填阿拉伯數字）。4: Total course (full-semester or full-year) credits (in Arabic numerals).

單位主管簽章 Head of Planning Division：　　　　　　　承辦人簽章 Signature of Responsible Person：

114 年 01 月 16 日

課程規劃表 Curriculum Plan

◎規劃單位 Planning Unit：資訊工程學系 Department of Computer Science and Engineering

課程名稱 Course	規劃要點（附註）Plans (Notes)				對應核心能力編號 Corresponding Education Goal Number	開課單位 Course Offering Unit	備註（開課年級）Remarks（Year of Study）
	1	**2**	**3**	**4**			
（中文）網路安全導論 （英文）Introduction to Network Security	U	A	S	3	A60E40	資工系 Dept. of Computer Science and Engineering	3
（中文）平行演算法導論 （英文）Introduction to Parallel Algorithms	U	A	S	3	A50C30 D20	資工系 Dept. of Computer Science and Engineering	3 或(or) 4 先修科目：演算法 Pre-requisites: Introduction to Algorithms
（中文）資料挖掘與機器學習導論 （英文）Introduction to Data Mining and Machine Learning	U	A	S	3	A50C20 D30	資工系 Dept. of Computer Science and Engineering	4 上(1st Semester)
（中文）雲端運算導論 （英文）Introduction to Cloud Computing	U	A	S	3	C30D30 E40	資工系 Dept. of Computer Science and Engineering	3 或(or) 4
（中文）軟體工程 （英文）Software Engineering	U	A	S	3	C50F50	資工系 Dept. of Computer Science and Engineering	3 或(or) 4
（中文）智慧型手機應用程式開發 （英文）Smart Phone Application Development	U	A	S	3	C60F40	資工系 Dept. of Computer Science and Engineering	3
（中文）電腦鑑識導論 （英文）Introduction to Computer Forensics	U	A	S	3	A70D30	資工系 Dept. of Computer Science and Engineering	4
（中文）綠能資訊科技導論 （英文）Introduction to Green Computing Technology	U	A	S	3	A20C40 F40	資工系 Dept. of Computer Science and Engineering	4 下(2nd Semester)
（中文）生物資訊導論 （英文）Introduction to Bioinformatics	U	A	S	3	A50D30 F20	資工系 Dept. of Computer Science and Engineering	3 下(2nd Semester)

※附註：規劃要點填表說明：（１到４各欄位請填正確代表字母）
Note: Instructions for completing this form are provided below (please provide the correct English alphabet letters in fields 1 to 4)
１：U-學士課程、M-碩士課程、D-博士課程。1: U-Bachelor's program, M-Master's program, D-Doctoral program.
２：A-正課、B-實習課、C-台下指導之科目如學生講述或邀請演講之專題討論、專題研究……等。2:A-Lecture, B-Internship, C-Subjects with private guidance such as student presentations or invited speeches, topic discussions, topic research, etc.
３：S-學期課、Y-學年課。3: S-Semester course, Y-Year-long course.
４：科目（全期或全年）總學分數（請填阿拉伯數字）。4: Total course (full-semester or full-year) credits (in Arabic numerals).

單位主管簽章 Head of Planning Division：　　　　　　　　承辦人簽章 Signature of Responsible Person：
114 年 01 月 16 日

課程規劃表 Curriculum Plan

◎規劃單位 Planning Unit：資訊工程學系 Department of Computer Science and Engineering

課程名稱 Course	規劃要點（附註）Plans (Notes)				對應核心能力編號 Corresponding Education Goal Number	開課單位 Course Offering Unit	備註（開課年級）Remarks（Year of Study）
	1	**2**	**3**	**4**			
（中文）資訊檢索導論 （英文）Introduction to Information Retrieval	U	A	S	3	A50F50	資工系 Dept. of Computer Science and Engineering	4 下(2nd Semester)
（中文）編譯器 （英文）Compilers	U	A	S	3	A50C50	資工系 Dept. of Computer Science and Engineering	3 1042 必修改選修 Required Course changed to Elective
（中文）計算機導論 （英文）Introduction to Computer Science	U	A	S	3	A100	資工系 Dept. of Computer Science and Engineering	1 1042 必修改選修 Required Course changed to Elective
（中文）人工智慧與遊戲設計 （英文）AI and Game Design	U	A	S	3	A20C50F30	資工系 Dept. of Computer Science and Engineering	3 或(or) 4
（中文）物聯網導論 （英文）Introduction to Internet of Things	U	A	S	3	A20C50F30	資工系 Dept. of Computer Science and Engineering	3 或(or) 4
（中文）Python 程式設計 （英文）Python Programming	U	A	S	3	E100	資工系 Dept. of Computer Science and Engineering	3 下(2nd Semester)
（中文）資訊專題（三） （英文）Projects in Computer Science（III）	U	C	S	2	A15B15 C15D15 E15F25	資工系 Dept. of Computer Science and Engineering	3 或(or) 4
（中文）資訊科技課綱概論 （英文）Introduction to the Syllabus of Information Technology	U	A	S	1	A20C50F30	資工系 Dept. of Computer Science and Engineering	
（中文）資訊科學新興主題 （英文）Emerging Topics in Computer Science	U	A	S	1	C50F50	資工系 Dept. of Computer Science and Engineering	

※附註：規劃要點填表說明：（1 到 4 各欄位請填正確代表字母）
Note: Instructions for completing this form are provided below (please provide the correct English alphabet letters in fields 1 to 4)
1：U-學士課程、M-碩士課程、D-博士課程。1: U-Bachelor's program, M-Master's program, D-Doctoral program.
2：A-正課、B-實習課、C-台下指導之科目如學生講述或邀請演講之專題討論、專題研究……等。2:A-Lecture, B-Internship, C-Subjects with private guidance such as student presentations or invited speeches, topic discussions, topic research, etc.
3：S-學期課、Y-學年課。3: S-Semester course, Y-Year-long course.
4：科目（全期或全年）總學分數（請填阿拉伯數字）。4: Total course (full-semester or full-year) credits (in Arabic numerals).

單位主管簽章 Head of Planning Division：　　　　　　　　承辦人簽章 Signature of Responsible Person：

114 年 01 月 16 日

課程規劃表 Curriculum Plan

◎規劃單位 Planning Unit：資訊工程學系 Department of Computer Science and Engineering

課程名稱 Course	規劃要點（附註）Plans (Notes)				對應核心能力編號 Corresponding Education Goal Number	開課單位 Course Offering Unit	備註（開課年級）Remarks（Year of Study）
	1	**2**	**3**	**4**			
（中文）資訊科學教學法 （英文）Information Science Teaching	**U**	**A**	**S**	**1**	A20C50F30	資工系 Dept. of Computer Science and Engineering	
（中文）機器學習 （英文）Machine Learning	**U**	**A**	**S**	**3**	A100	資工系 Dept. of Computer Science and Engineering	3 或(or) 4
（中文）基礎計算機程式設計 （英文）Basic Computer Programming	**U**	**A**	**S**	**1**	A20C50F30	資工系 Dept. of Computer Science and Engineering	1
（中文）強化式機器學習導論 （英文）Introduction to Reinforcement Learning	**U**	**A**	**S**	**3**	A20C50F30	資工系 Dept. of Computer Science and Engineering	4
（中文）R 語言實務與機器學習應用 （英文）Data Analysis, Graphics and Machine Learning With R	**U**	**A**	**S**	**1**	A50C50	資工系 Dept. of Computer Science and Engineering	2 (108-1)名稱變更，原名稱：R 語言實務 Name Change Previous Name: Data Analysis and Graphics With R
（中文）空拍機實務與影像處理 （英文）Drone Image Processing and Applications	**U**	**A**	**S**	**1**	D100	資工系 Dept. of Computer Science and Engineering	2
（中文）物聯網專題實作 （英文）IOT Project	**U**	**A**	**S**	**1**	E50F50	資工系 Dept. of Computer Science and Engineering	2
（中文）資料探勘導論 （英文）Introduction to Data Mining	**U**	**A**	**S**	**3**	A50C20D30	資工系 Dept. of Computer Science and Engineering	3 或(or) 4
（中文）智慧物聯網應用與實作	**U**	**A**	**S**	**3**	A50D50	資工系 Dept. of	3 或(or) 4

※附註：規劃要點填表說明：（１到４各欄位請填正確代表字母）
Note: Instructions for completing this form are provided below (please provide the correct English alphabet letters in fields 1 to 4)
１：U-學士課程、M-碩士課程、D-博士課程。1: U-Bachelor's program, M-Master's program, D-Doctoral program.
２：A-正課、B-實習課、C-台下指導之科目如學生講述或邀請演講之專題討論、專題研究……等。2:A-Lecture, B-Internship, C-Subjects with private guidance such as student presentations or invited speeches, topic discussions, topic research, etc.
３：S-學期課、Y-學年課。3: S-Semester course, Y-Year-long course.
４：科目（全期或全年）總學分數（請填阿拉伯數字）。4: Total course (full-semester or full-year) credits (in Arabic numerals).

單位主管簽章 Head of Planning Division：　　　　　　　　承辦人簽章 Signature of Responsible Person：

114 年 01 月 16 日

課程規劃表 Curriculum Plan

◎規劃單位 Planning Unit：資訊工程學系 Department of Computer Science and Engineering

課程名稱 Course	規劃要點（附註）Plans (Notes)				對應核心能力編號 Corresponding Education Goal Number	開課單位 Course Offering Unit	備註（開課年級）Remarks（Year of Study）
	1	**2**	**3**	**4**			
（英文）Artificial Intelligent Internet of Things (AIoT) Application and Implementation						Computer Science and Engineering	(109-1)名稱變更，原名稱：物聯網應用與實作 Name Change Previous Name: Internet of Things Application and Implementation
（中文）智慧物聯網應用與實作(一) （英文）Artificial Intelligent Internet of Things (AIoT) Application and Implementation (I)	U	A	S	1	A50D50	資工系 Dept. of Computer Science and Engineering	3 或(or) 4 (109-1)名稱變更，原名稱：物聯網應用與實作(一) Name Change Previous Name: Internet of Things Application and Implementation(I)
（中文）智慧物聯網應用與實作(二) （英文）Artificial Intelligent Internet of Things (AIoT) Application and Implementation (II)	U	A	S	1	A50D50	資工系 Dept. of Computer Science and Engineering	3 或(or) 4 (109-1)名稱變更，原名稱：物聯網應用與實作(二) Name Change Previous Name: Internet of Things Application and Implementation(II)，先修科目：智慧物聯網應用與實作(一) Pre-requisites:

※附註：規劃要點填表說明：（１到４各欄位請填正確代表字母）
Note: Instructions for completing this form are provided below (please provide the correct English alphabet letters in fields 1 to 4)
1：U-學士課程、M-碩士課程、D-博士課程。1: U-Bachelor's program, M-Master's program, D-Doctoral program.
2：A-正課、B-實習課、C-台下指導之科目如學生講述或邀請演講之專題討論、專題研究……等。2:A-Lecture, B-Internship, C-Subjects with private guidance such as student presentations or invited speeches, topic discussions, topic research, etc.
3：S-學期課、Y-學年課。3: S-Semester course, Y-Year-long course.
4：科目（全期或全年）總學分數（請填阿拉伯數字）。4: Total course (full-semester or full-year) credits (in Arabic numerals).

單位主管簽章 Head of Planning Division：　　　　　　承辦人簽章 Signature of Responsible Person：
114 年 01 月 16 日

課程規劃表 Curriculum Plan

◎規劃單位 Planning Unit：資訊工程學系 Department of Computer Science and Engineering

課程名稱 Course	規劃要點（附註）Plans (Notes)				對應核心能力編號 Corresponding Education Goal Number	開課單位 Course Offering Unit	備註（開課年級）Remarks（Year of Study）
	1	**2**	**3**	**4**			
							Artificial Intelligent Internet of Things (AIoT) Application and Implementation (I)
（中文）智慧物聯網應用與實作(三) （英文）Artificial Intelligent Internet of Things (AIoT) Application and Implementation (III)	**U**	**A**	**S**	**1**	A50D50	資工系 Dept. of Computer Science and Engineering	3 或(or) 4 (109-1)名稱變更，原名稱：物聯網應用與實作(三) Name Change Previous Name: Internet of Things Application and Implementation(III)，先修科目：智慧物聯網應用與實作(一)及智慧物聯網應用與實作(二) Pre-requisites: Artificial Intelligent Internet of Things (AIoT) Application and Implementation (I) & (II)
（中文）深度學習概論與影像處理應用 （英文）Introduction to Deep Learning in Image Processing	**U**	**A**	**S**	**1**	E50F50	資工系 Dept. of Computer Science and Engineering	3 或(or) 4
（中文）Python 程式設計(一) （英文）Python Programming(I)	**U**	**A**	**S**	**1**	E100	資工系 Dept. of	3

※附註：規劃要點填表說明：（１到４各欄位請填正確代表字母）
　Note: Instructions for completing this form are provided below (please provide the correct English alphabet letters in fields 1 to 4)
　１：U-學士課程、M-碩士課程、D-博士課程。1: U-Bachelor's program, M-Master's program, D-Doctoral program.
　２：A-正課、B-實習課、C-台下指導之科目如學生講述或邀請演講之專題討論、專題研究……等。2:A-Lecture, B-Internship, C-Subjects with private guidance such as student presentations or invited speeches, topic discussions, topic research, etc.
　３：S-學期課、Y-學年課。3: S-Semester course, Y-Year-long course.
　４：科目（全期或全年）總學分數（請填阿拉伯數字）。4: Total course (full-semester or full-year) credits (in Arabic numerals).

單位主管簽章 Head of Planning Division：　　　　　承辦人簽章 Signature of Responsible Person：
　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　114 年 01 月 16 日

課程規劃表 Curriculum Plan

◎規劃單位 Planning Unit：資訊工程學系 Department of Computer Science and Engineering

課程名稱 Course	規劃要點（附註）Plans (Notes)				對應核心能力編號 Corresponding Education Goal Number	開課單位 Course Offering Unit	備註（開課年級）Remarks（Year of Study）
	1	**2**	**3**	**4**			
						Computer Science and Engineering	
（中文）Python 程式設計(二) （英文）Python Programming(II)	U	A	S	1	E100	資工系 Dept. of Computer Science and Engineering	3 先修科目：Python 程式設計(一) Pre-requisites: Python Programming(I)
（中文）Python 程式設計(三) （英文）Python Programming(III)	U	A	S	1	E100	資工系 Dept. of Computer Science and Engineering	3 先修科目：Python 程式設計(一)及 Python 程式設計(二) Pre-requisites: Python Programming(I)&(II)
（中文）大數據分析程式實作 （英文）Big Data Programming	U	A	S	1	A30D30F40	資工系 Dept. of Computer Science and Engineering	3 或(or) 4 先修科目：物件導向程式設計(一)或 Python 程式設計(一) Pre-requisites: Object-Oriented Programming(I)/ Python Programming(I)
（中文）物件導向程式設計(一) （英文）Object-Oriented Programming(I)	U	A	S	1	C100	資工系 Dept. of Computer Science and Engineering	1
（中文）物件導向程式設計(二) （英文）Object-Oriented Programming(II)	U	A	S	1	C100	資工系 Dept. of Computer Science and Engineering	1 先修科目：物件導向程

※附註：規劃要點填表說明：（１到４各欄位請填正確代表字母）
Note: Instructions for completing this form are provided below (please provide the correct English alphabet letters in fields 1 to 4)
1：U-學士課程、M-碩士課程、D-博士課程。1: U-Bachelor's program, M-Master's program, D-Doctoral program.
2：A-正課、B-實習課、C-台下指導之科目如學生講述或邀請演講之專題討論、專題研究……等。2:A-Lecture, B-Internship, C-Subjects with private guidance such as student presentations or invited speeches, topic discussions, topic research, etc.
3：S-學期課、Y-學年課。3: S-Semester course, Y-Year-long course.
4：科目（全期或全年）總學分數（請填阿拉伯數字）。4: Total course (full-semester or full-year) credits (in Arabic numerals).

單位主管簽章 Head of Planning Division：　　　　　　　　　承辦人簽章 Signature of Responsible Person：

114 年 01 月 16 日

課程規劃表 Curriculum Plan

◎規劃單位 Planning Unit：資訊工程學系 Department of Computer Science and Engineering

課程名稱 Course	規劃要點（附註）Plans (Notes)				對應核心能力編號 Corresponding Education Goal Number	開課單位 Course Offering Unit	備註（開課年級）Remarks（Year of Study）
	1	**2**	**3**	**4**			
							式設計(一) Pre-requisites: Object-Oriented Programming(I)
（中文）物件導向程式設計(三) （英文）Object-Oriented Programming(III)	U	A	S	1	C100	資工系 Dept. of Computer Science and Engineering	1 先修科目：物件導向程式設計(一)及物件導向程式設計(二) Pre-requisites: Object-Oriented Programming(I)&(II)
（中文）檔案處理與輸出入系統 （英文）File Processing and I/O Systems	U	A	S	3	B30C70	資工系 Dept. of Computer Science and Engineering	3
（中文）量子資訊科學導論 （英文）Introduction to Quantum Information Science	U	A	S	3	A40F60	資工系 Dept. of Computer Science and Engineering	4 先修科目：線性代數 Pre-requisites: Linear Algebra
（中文）統計學 （英文）Statistics	U	A	S	3	A50D30 F20	資工系 Dept. of Computer Science and Engineering	1 下(2nd Semester) 109 選修改必修 Elective Course changed to Required 112 必修改選修 Required Course changed to Elective
（中文）自然語言處理	U	A	S	3	A40E30 F30	資工系 Dept. of	進階課程

※附註：規劃要點填表說明：（１到４各欄位請填正確代表字母）
Note: Instructions for completing this form are provided below (please provide the correct English alphabet letters in fields 1 to 4)
1：U-學士課程、M-碩士課程、D-博士課程。1: U-Bachelor's program, M-Master's program, D-Doctoral program.
2：A-正課、B-實習課、C-台下指導之科目如學生講述或邀請演講之專題討論、專題研究……等。2:A-Lecture, B-Internship, C-Subjects with private guidance such as student presentations or invited speeches, topic discussions, topic research, etc.
3：S-學期課、Y-學年課。3: S-Semester course, Y-Year-long course.
4：科目（全期或全年）總學分數（請填阿拉伯數字）。4: Total course (full-semester or full-year) credits (in Arabic numerals).

單位主管簽章 Head of Planning Division：　　　　　　　　承辦人簽章 Signature of Responsible Person：

114 年 01 月 16 日

課程規劃表 Curriculum Plan

◎規劃單位 Planning Unit：資訊工程學系 Department of Computer Science and Engineering

課程名稱 Course	規劃要點（附註）Plans (Notes)				對應核心能力編號 Corresponding Education Goal Number	開課單位 Course Offering Unit	備註（開課年級）Remarks（Year of Study）
	1	**2**	**3**	**4**			
（英文）Natural Language Processing						Computer Science and Engineering	Advanced course
（中文）高等資料探勘與巨量資料分析 （英文） Advanced Data Mining and Big Data Analysis	U	A	S	3	A30D30F40	資工系 Dept. of Computer Science and Engineering	進階課程 Advanced course
（中文）量子密碼學 （英文）Quantum Cryptography	U	A	S	3	A60F40	資工系 Dept. of Computer Science and Engineering	進階課程 Advanced course
（中文）自動化金融交易入門 （英文）Introduction to Automated Financial Trading	U	A	S	3	D100	資工系 Dept. of Computer Science and Engineering	進階課程 Advanced Course 先修科目：資料結構 & 演算法 &（機器學習或人工智慧或智慧物聯網應用與實作）Pre-requisites: Data Structures & Introduction to Algorithms &(Machine Learning/ Artificial Intelligence/ Artificial Intelligent Internet of Things (AIoT) Application and Implementation)
（中文）Unix 系統與 Script 程式設計	U	A	S	3	A20C40 D40	資工系	2

※附註：規劃要點填表說明：（１到４各欄位請填正確代表字母）
　　Note: Instructions for completing this form are provided below (please provide the correct English alphabet letters in fields 1 to 4)
　　１：U-學士課程、M-碩士課程、D-博士課程。1: U-Bachelor's program, M-Master's program, D-Doctoral program.
　　２：A-正課、B-實習課、C-台下指導之科目如學生講述或邀請演講之專題討論、專題研究……等。2:A-Lecture, B-Internship, C-Subjects with private guidance such as student presentations or invited speeches, topic discussions, topic research, etc.
　　３：S-學期課、Y-學年課。3: S-Semester course, Y-Year-long course.
　　４：科目（全期或全年）總學分數（請填阿拉伯數字）。4: Total course (full-semester or full-year) credits (in Arabic numerals).

單位主管簽章 Head of Planning Division：　　　　　承辦人簽章 Signature of Responsible Person：
114 年 01 月 16 日

課程規劃表 Curriculum Plan

◎規劃單位 Planning Unit：資訊工程學系 Department of Computer Science and Engineering

課程名稱 Course	規劃要點（附註）Plans (Notes)				對應核心能力編號 Corresponding Education Goal Number	開課單位 Course Offering Unit	備註（開課年級）Remarks（Year of Study）
	1	**2**	**3**	**4**			
（英文）Unix System and Script Programming						Dept. of Computer Science and Engineering	1042 選修改必修 Elective Course changed to Required 1131 必修改選修 Required Course changed to Elective
（中文）資料庫管理系統導論 （英文）Introduction to Database Management System	U	A	S	3	A25C40 D35	資工系 Dept. of Computer Science and Engineering	3 1131 必修改選修 Required Course changed to Elective

※附註：規劃要點填表說明：（1到4各欄位請填正確代表字母）
　　Note: Instructions for completing this form are provided below (please provide the correct English alphabet letters in fields 1 to 4)
　　1：U-學士課程、M-碩士課程、D-博士課程。1: U-Bachelor's program, M-Master's program, D-Doctoral program.
　　2：A-正課、B-實習課、C-台下指導之科目如學生講述或邀請演講之專題討論、專題研究……等。2:A-Lecture, B-Internship, C-Subjects with private guidance such as student presentations or invited speeches, topic discussions, topic research, etc.
　　3：S-學期課、Y-學年課。3: S-Semester course, Y-Year-long course.
　　4：科目（全期或全年）總學分數（請填阿拉伯數字）。4: Total course (full-semester or full-year) credits (in Arabic numerals).

單位主管簽章 Head of Planning Division：　　　　　　承辦人簽章 Signature of Responsible Person：

114 年 01 月 16 日