亞洲大學 資訊工程學系 學士班課程規劃表 (115 學年度入學適用)

Undergraduate Curriculum Plan for Department of Computer Science and Information Engineering, Asia University (Applicable for Fall 2026 Enrollees)

畢業總學分：128 學分

Credits of Graduation：128

校課程委員會通過次別 1143

Approved in the 1143 University Curriculum Committee meeting

類別 Category		科目名稱 Course Title		英文名稱 English Title	修課年級 Year of the Program	修課學期 Semester	學分數 Credits	每週上課時數 Hours per week			備註(中文) Remarks (in Chinese)	備註(英文) Remarks (in English)
								講授 Lecture	實作(驗) Practice (laboratory)	實習 Intern		
(30) 校定必修 30 學分 (30) University Required Credits	(22) 基礎通識 22 學分 (22) Program Required Credits	中文領域 Chinese Category (4 學分) (4 Credits)	中文鑑賞與思辨	Chinese Appreciation and Critical Thinking	一 1st	上 1st	2	2	0	0		
			中文表達與應用	Chinese Expression and Application	一 1st	下 2nd	2	2	0	0		
		英文領域 English Category (8 學分) (8 Credits)	學術英語文(一)	English for Academic Purposes (1)	一 1st	上 1st	2	2	0	0		
			學術英語文(二)	English for Academic Purposes (2)	一 1st	下 2nd	2	2	0	0		
			專業英語文(一):醫護英文	English for Specific Purposes(1): English for Medical and Nursing Purposes	二 2nd	上 1st	2	2	0	0	醫學暨健康學院 護理學院	College of Medical and Health Sciences College of Nursing
			專業英語文(二):醫護英文	English for Specific Purposes(2): English for Medical and Nursing Purposes	二 2nd	下 2nd	2	2	0	0		
			專業英語文(一):科技英文	English for Specific Purposes(1): English for Science and Technology	二 2nd	上 1st	2	2	0	0	資訊電機學院	College of Information and Electrical Engineering
			專業英語文(二):科技英文	English for Specific Purposes(2): English for Science and Technology	二 2nd	下 2nd	2	2	0	0		
			專業英語文(一):商管英文	English for Specific Purposes(1): Business English	二 2nd	上 1st	2	2	0	0	管理暨社會科學學院	College of Management and Social Sciences
			專業英語文(二):商管英文	English for Specific Purposes(2): Business English	二 2nd	下 2nd	2	2	0	0		
			專業英語文(一):設計英文	English for Specific Purposes(1): English for Creative Design	二 2nd	上 1st	2	2	0	0	創意設計學院	College of Creative Design
			專業英語文(二):設計英文	English for Specific Purposes(2): English for Creative Design	二 2nd	下 2nd	2	2	0	0		
		程式領域 Information Category (4 學分) (4 Credits)	AI 素養與應用(一)	AI Literacy and Applications (1)	一 1st	上 1st	2	2	0	0		
			AI 素養與應用(二)	AI Literacy and Applications (2)	一 1st	下 2nd	2	2	0	0		
		歷史領域 History Category (2 學分) (2 Credits)	歷史與文化	History and Culture	一 1st	上、下 1st、2nd	2	2	0	0		
		藝術領域 Esthetics Category (2 學分) (2 Credits)	設計思考與創新	Design Thinking and Innovation	一 1st	上、下 1st、2nd	2	2	0	0	(二選一)	Choose 1 out of 2
			美學素養	Esthetics Accomplishment								

類別 Category		科目名稱 Course Title	英文名稱 English Title	修課年級 Year of the Program	修課學期 Semester	學分數 Credits	每週上課時數 Hours per week			備註(中文) Remarks (in Chinese)	備註(英文) Remarks (in English)
							講授 Lecture	實作(驗) Practice (laboratory)	實習 Intern		
		永續領域 Sustainable Category (2 學分) (2 Credits) 永續發展與實踐	Sustainable Development and Practice	一 1st	上、下 1st、2nd	2	2	0	0		
	博雅通識 8 學分 (8) Program Elective Credits	博雅課程 (人文類、社會類、自然類、生活類)	General Required (Core) Courses (Categories: Humanities, Society, Nature, Life)	一~四 1st~4th	上、下 1st, 2nd	8	8	0	0	1. 博雅課程分為四類：(1)人文類-1 (2)社會類-2 (3)自然類-3 (4)生活類-4 2. 每一類至少須選修 2 學分(共四類 8 學分)。	1. General Required (Core) Courses are divided into 4 categories: (1) Humanities, (2) Society, (3) Nature, and (4) Life. 2. Students are required to complete a minimum of 2 credits of course from each category (8 credits in total for 4 categories).
	體育 Physical Program	體育(一)~(四)	Physical Education (1)~(4)	一~二 1st~2nd	上、下 1st, 2nd	0	2	0	0		
涵養教育 Cultivation Education	通識講座 General Lectures (Required)	通識涵養教育 (健康、關懷、創新、卓越)	General Literacy Series (Domains of Literacy: Healthy, Care, Innovation, Excellence)	一~四 1st~4th	上、下 1st, 2nd	0	0	0	0	1. 在學期間，學生可自由參與校內任何通識認證活動，不限場次。至少參與 8 次。 2. 每一素養至少達到 2 次：健康 2 次、關懷 2 次、創新 2 次、卓越 2 次。 3. 畢業前須完成上述 2 項。	1. Students are required to participate in at least 8 campus activities approved by the Center for General Education. 2. Students are required to attend at least 2 lectures from the 4 domains of Literacy: Healthy, Care, Innovation, Excellence. 3. Student must complete the above for graduation.
院核心課程 8 學分 (8)College Core Courses		基礎程式設計與 AI 協作	Foundations of Programming and AI Collaboration	一 1st	上 1st	3	3	0	0		
		人工智慧與雲端應用	Artificial Intelligence and Cloud Applications	二 2nd	上 1st	3	3	0	0		
		★畢業專題(一)	Special Projects (Ⅰ)	三 3rd	下 2nd	1	0	0	0	同意專案役男於三上修讀	Approval for the Project Conscript to Take Courses in the First Semester of the Third Year of University
		★畢業專題(二)	Special Projects (Ⅱ)	四 4th	上 1st	1	0	0	0	同意專案役男於三下修讀	Approval for the Project Conscript to Take Courses in the Second Semester of the Third Year of University
系核心課程 39 學分 (39) Departmental Core Courses		微積分	Calculus	一 1st	上 1s	3	3	0	0		
		線性代數	Linear Algebra	一 1st	上 1s	3	3	0	0		
		AI 程式設計實務	AI Driven Programming and Practice	一 1st	下 2nd	3	3	0	0		
		機率與統計	Probability and Statistics	一 1st	下 2nd	3	3	0	0		
		離散數學	Discrete Mathematics	一 1st	下 2nd	3	3	0	0		

類別 Category		科目名稱 Course Title	英文名稱 English Title	修課 年級 Year of the Program	修課 學期 Semester	學分數 Credits	每週上課時數 Hours per week			備註(中文) Remarks (in Chinese)	備註(英文) Remarks (in English)
							講授 Lecture	實作(驗) Practice (laboratory)	實習 Intern		
		計算機網路概論	Introduction of Computer Network	二 2nd	上 1st	3	3	0	0		
		資料結構	Data Structures	二 2nd	上 1st	3	3	0	0		
		演算法	Algorithms	二 2nd	下 2nd	3	3	0	0		
		邏輯設計	Logic Design	二 2nd	下 2nd	3	3	0	0		
		作業系統概論	Introduction to Operating Systems	三 3rd	上 1st	3	3	0	0		
		資料庫系統概論	Introduction to Database Systems	三 3rd	上 1st	3	3	0	0		
		微處理器與嵌入式系統	Microprocessor and Embedded Systems	三 3rd	下 2nd	3	3	0	0		
		計算機組織	Computer Organization	三 3rd	下 2nd	3	3	0	0		
系專業選修學程18學分 (18) Department Professional Program	人工智慧學程 Artificial Intelligence Program	資料科學	Data Science	二 2nd	上 1s	3	3	0	0	學術型	Academic Courses
		機器學習	Machine Learning	二 2nd	下 2nd	3	3	0	0	學術型	Academic Courses
		深度學習	Deep Learning	三 3rd	上 1st	3	3	0	0	學術型	Academic Courses
		大數據資料處理	Big Data Information Processing	三 3rd	下 2nd	3	3	0	0	實務型	Practical Courses
		生成式 AI	Generative AI	三 3rd	下 2nd	3	3	0	0	實務型	Practical Courses
		★雲端服務	Cloud Services	四 4th	上 1st	3	3	0	0	實務型 同意專案役男於三上修讀	Practical Courses Approval for the Project Conscript to Take Courses in the First Semester of the Third Year of University
	資訊安全學程 Information Security Program	資訊安全概論	Introduction to Information Security	二 2nd	上 1s	3	3	0	0	學術型	Academic Courses
		密碼學	Cryptography	二 2nd	下 2nd	3	3	0	0	學術型	Academic Courses
		網路攻防技術	Network attack and defense	三 3rd	上 1s	3	3	0	0	學術型	Academic Courses
		網路安全	Internet security	三 3rd	下 2nd	3	3	0	0	實務型	Practical Courses
		★雲端安全	Cloud security	四 4th	上 1st	3	3	0	0	實務型 同意專案役男於三上修讀	Practical Courses Approval for the Project Conscript to Take Courses in the First Semester of the Third Year of University
		★基於人工智慧的網路安全	AI-Based Cybersecurity	四 4th	下 2nd	3	3	0	0	實務型 同意專案役男於三下修讀	Practical Courses Approval for the Project Conscript to Take Courses in the Second Semester of the Third Year of University
	半導體資訊學程 Semiconductor Information Program	電子學(一)	Electronics (I)	二 2nd	上 1s	3	3	0	0	學術型	Academic Courses
		電子學實驗(一)	Electronics Lab (I)	二 2nd	上 1st	1	0	2	0	實務型	Practical Courses
		電子學(二)	Electronics (II)	二 2nd	下 2nd	3	3	0	0	學術型	Academic Courses
		電子學實驗(二)	Electronics Lab (II)	二 2nd	下 2nd	1	0	2	0	實務型	Practical Courses

類別 Category	科目名稱 Course Title	英文名稱 English Title	修課 年級 Year of the Program	修課 學期 Semester	學分數 Credits	每週上課時數 Hours per week			備註(中文) Remarks (in Chinese)	備註(英文) Remarks (in English)
						講授 Lecture	實作(驗) Practice (laboratory)	實習 Intern		
	電路學	Electric Circuits	三 3rd	上 1st	3	3	0	0	學術型	Academic Courses
	電路學實驗	Electric Circuits LAB	三 3rd	上 1st	1	0	2	0	實務型	Practical Courses
	數位系統設計	Digital system design	三 3rd	下 2nd	3	3	0	0	實務型	Practical Courses
	積體電路設計導論	Introduction to Integrated Circuit Design	三 3rd	下 2nd	3	3	0	0	實務型	Practical Courses
系自由選修課程 Department Elective Courses	基礎程式設計(C++)	Introduction to Programming (C++)	一 1st	上 1st	3	3	0	0		
	量子物理	Quantum physics	一 1st	下 2nd	3	3	0	0		
	無人機程式設計	Drone Programming	二 2nd	上 1st	3	3	0	0		
	視窗程式設計	Windows Programming	二 2nd	上 1st	3	3	0	0		
	量子計算概論	Introduction to quantum computing	二 2nd	上 1s	3	3	0	0		
	雲端運算實務	Cloud Computing Practice	二 2nd	下 2nd	3	3	0	0		
	網頁系統開發	Web Based System Programming	二 2nd	下 2nd	3	3	0	0		
	內嵌式記憶體電路設計	Embedded Memory Circuit Design	三 3rd	上 1st	3	3	0	0		
	半導體製程	Semiconductor Process	三 3rd	上 1st	3	3	0	0		
	智慧製造概論	Introduction to Smart Manufacturing	三 3rd	上 1st	3	3	0	0		
	感測系統與應用	Sensor System and Application	三 3rd	上 1st	3	3	0	0		
	實驗設計	Experimental Design	三 3rd	上 1st	3	3	0	0		
	實體設計自動化	Physical Design Automation	三 3rd	上 1st	3	3	0	0		
	量子演算法	Quantum algorithms	三 3rd	上 1st	3	3	0	0		
	工程數學	Engineering Mathematics	三 3rd	下 2nd	3	3	0	0		
	半導體測試實務	Semiconductor Testing	三 3rd	下 2nd	3	3	0	0		
	生產計劃與管制★	Production Planning and Control	三 3rd	下 2nd	3	3	0	0		
	品質工程★	Quality Engineering	三 3rd	下 2nd	3	3	0	0		
	智慧物聯網	Artificial Intelligence & Internet of Things (AIoT)	三 3rd	下 2nd	3	3	0	0		
	超大型積體電路測試	VLSI Testing	三 3rd	下 2nd	3	3	0	0		
	量子機器學習	Quantum machine learning	三 3rd	下 2nd	3	3	0	0		
	工程倫理暨資訊法律與服務	Engineering Ethic and Information Law and Services	三 3rd	下 2nd	3	3	0	0		
	無線網路	Wireless Networking	四 4th	上 1st	3	3	0	0		

類別 Category	科目名稱 Course Title	英文名稱 English Title	修課 年級 Year of the Program	修課 學期 Semester	學分數 Credits	每週上課時數 Hours per week			備註(中文) Remarks (in Chinese)	備註(英文) Remarks (in English)
						講授 Lecture	實作(驗) Practice (laboratory)	實習 Intern		
	影像處理	Image Processing	四 4th	上 1st	3	3	0	0		
	機器人實務	Robotics Practice	四 4th	上 1st	3	3	0	0		
	積體電路設計自動化	VLSI Design Automation	四 4th	上 1st	3	3	0	0		
	綠色製程	Green Manufacturing	四 4th	下 2nd	3	3	0	0		
	積體電路設計實驗	Integrated Circuit Design Laboratory	四 4th	下 2nd	3	3	0	0		

本系辦理實施「7+1」分流實習課程之對應科目名稱一覽表：

List of course titles for the department's implementation of the "7+1" internship program:

類別 Category	科目名稱 Course Title	英文名稱 English Title	修課 年級 Year of the Program	修課 學期 Semester	學分數 Credits	每週上課時數 Hours per week			備註(中文) Remarks (in Chinese)	備註(英文) Remarks (in English)
						講授 Lecture	實作(驗) Practice (laboratory)	實習 Intern		
分流實習課程 Internship Program	產業服務(7+1 分流)	Industry Service	四 4th	上、下 1st, 2nd	3	0	0	詳見備註 See remarks for details	*全學期需至企業實習 一、 每 1 實習學分以不低於 60 小時、不超過 80 小時為原則。 二、 每學期以不超過 9 學分「不超過 720 小時」為限。 實習學分列入畢業學分以不超過 18 學分「不超過 1440 小時」為原則。	Requires internship in a company throughout a semester 1. Each internship credit shall be based on a minimum of 60 hours and a maximum of 80 hours. 2. The total number of credits per semester shall not exceed 9, with a maximum of 720 hours. 3. Internship credits counted toward graduation requirements shall be limited to a maximum of 18 credits, not exceeding 1,440 hours in total.
	產業學習(7+1 分流)	Industry Learning	四 4th	上、下 1st, 2nd	3	0	0	詳見備註 See remarks for details		
	產業實務實習(7+1 分流)	Industry Internship	四 4th	上、下 1st, 2nd	3	0	0	詳見備註 See remarks for details		

本系辦理實施「3+1」分流實習課程之對應科目名稱一覽表：

List of course titles for the department's implementation of the "3+1" internship program:

類別 Category	科目名稱 Course Title	英文名稱 English Title	修課年級 Year of the Program	修課學期 Semester	學分數 Credits	每週上課時數 Hours per week			備註(中文) Remarks (in Chinese)	備註(英文) Remarks (in English)
						講授 Lecture	實作(驗) Practice (laboratory)	實習 Intern		
分流實習課程 Internship Program	產業服務(一) (3+1 分流)	Industry Service (I)	四 4th	上 1st	3	0	0	詳見備註 See remarks for details	*全學年需至企業實習 一、 每 1 實習學分以不低於 60 小時、不超過 80 小時為原則。 二、 每學期以不超過 9 學分「不超過 720 小時」為限。 三、 實習學分列入畢業學分以不超過 18 學分「不超過 1440 小時」為原則。	Requires internship in a company throughout a school year 1. Each internship credit shall be based on a minimum of 60 hours and a maximum of 80 hours. 2. The total number of credits per semester shall not exceed 9, with a maximum of 720 hours. 3. Internship credits counted toward graduation requirements shall be limited to a maximum of 18 credits, not exceeding 1,440 hours in total.
	產業服務(二) (3+1 分流)	Industry Service (II)	四 4th	下 2nd	3	0	0	詳見備註 See remarks for details		
	產業學習(一) (3+1 分流)	Industry Learning (I)	四 4th	上 1st	3	0	0	詳見備註 See remarks for details		
	產業學習(二) (3+1 分流)	Industry Learning (II)	四 4th	下 2nd	3	0	0	詳見備註 See remarks for details		
	產業實務實習(一) (3+1 分流)	Industry Internship (I)	四 4th	上 1st	3	0	0	詳見備註 See remarks for details		
	產業實務實習(二) (3+1 分流)	Industry Internship (II)	四 4th	下 2nd	3	0	0	詳見備註 See remarks for details		

備註 Notes：

一、 學生含通識課程應修畢 128 學分(含)以上，需修習「校定必修」30 學分，「院核心課程」8 學分，本系「系核心課程」39 學分、本系一個主修「專業學程」18 學分，以及跨域學程：「跨領域學程」、「跨系專長學程」或「跨系次專長學程」，始能畢業(工程類課程學分須大於 48 學分)，不足畢業學分數，請從本系另一非主修「專業學程」或自由選修中修習學分補足之。

Students must complete a total of 128 or more credits, including 30 credits of "University Mandatory Courses," 8 credits of "College Core Courses," 39 credits of "Department Core Courses," and 18 credits from one of the department's "Professional Programs." Additionally, students must complete credits in cross-disciplinary programs: "Interdisciplinary Program," "Other Department's Major Program," or "Other Department's Minor Program." Engineering-related courses must total more than 48 credits. Any deficiency in the required graduation credits should be made up by taking credits from another "Professional Program" or elective courses within the department.

二、 本系學生畢業前必須自本系開設之專業選修學程中，至少擇一修畢整套課程為主修學程；而學生亦可從專業選修學程中選修部分課程列入自由選修，但不得與主修學程重複計算學分。

Before graduation, students must complete a full set of courses from at least one "Professional Program" offered by the department as their major program. Students may also select individual courses from other professional programs to count as electives, but these credits cannot overlap with the credits of their major program.

三、 凡本系開設之自由選修課程、7+1 及 3+1 分流實習課程或由學生填寫課程學分認定申請單並經系主任同意之外系課程，皆可列入自由選修學分(自由選修學分至少 12 學分為本系專業課程)，否則必須自行擔負學分不被承認的可能結果(其餘請詳閱本校課程學分認定申請單之注意事項)。

Any elective courses offered by the department, the 7+1 and 3+1 internship programs, or courses from other departments approved via a "Course Credit Recognition Application Form" signed by the department chair, can count towards elective credits. At least 12 of the elective credits must be from the department's professional courses. Failure to meet these requirements may result in credits not being recognized. (For further details, please refer to the instructions on the Course Credit Recognition Application Form.)

四、 針對本系系核心課程、專業選修學程及院核心課程第一次修課必須在本系上課，不得至非本系修課，如違反規定者必須自行擔負學分不被承認可能結果。第二次修課由學生填寫課程學分認定申請單並經系主任同意，始可跨學制、學系修習課程(其餘請詳閱本校課程學分認定申請單之注意事項)。

For the first attempt at any "Department Core Courses," "Professional Program Courses," and " College Core Courses," students must take the courses within the department. Taking these courses in another department will result in the credits not being recognized. For the second attempt, students may submit a "Course Credit Recognition Application Form" to take courses from other departments or programs with the department chair's approval. (For additional details, please refer to the Course Credit Recognition Application Form.)

五、 學生除完成本系專業學程 18 學分外，另可修習 3+1 分流或 7+1 分流實習課程，其學分可列計本系專業學程。

In addition to completing the 18 credits of the department's professional program, students may also take the 3+1 or 7+1 internship courses. The credits earned from these courses can be counted toward the department's professional program requirements.

六、 本系規劃表所列「自由選修」科目表，仍需俟開課年度合理之開課學分數，並參酌學生「自主學習」意願開課。
The department's course schedule for "Free Elective" subjects will be arranged based on the reasonable number of credits offered in a given academic year, considering students' "Self-Directed Learning" preferences.

七、 本系學生每學期跨校選修課程之學分數最高以五學分為限，但經同意以遠距方式選讀他校之學分數以其當學期修習學分數之三分之一為原則。
The maximum number of cross-university elective course credits students may take per semester is 5 credits. For distance learning courses from other universities, the maximum number of credits is one-third of the total credits the student is taking that semester.

八、 本系學生，得經系主任同意，上修本校碩士班學分。
With the department chair's approval, students are allowed to take graduate-level courses from the department's master's program.

九、 本系學生於畢業前，須取得至少一張與資訊工程相關的證照，不包括丙級證照，且證照須於畢業當年度仍有效。
Before graduation, students of this department must obtain at least one certificate related to Computer Science and Information Engineering; certificates of Class C (Entry-Level) are not included, and the certificate must still be valid in the year of graduation.