

南開科技大學 112學年度入學 科技學院車輛工程系 進修部四技 課程總表

Nankai University of Technology Course Catalog for the 112th Academic Year,College of Science and Technology, Department of Vehicle Engineering, Continuing Education Division, Four-Year Program

類別 Class	一年級(112) First Year					二年級(113) Second Year					三年級(114) Third Year					四年級(115) Fourth year					
	科目 Subjects	一上 AY(1) Fall		一下 AY(1) Spring		科目 Subjects	二上 AY(2) Fall		二下 AY(2) Spring		科目 Subjects	三上 AY(3) Fall		三下 AY(3) Spring		科目 Subjects	四上 AY(4) Fall		四下 AY(4) Spring		
		學分 Credits	時數 Credit Hours	學分 Credits	時數 Credit Hours		學分 Credits	時數 Credit Hours	學分 Credits	時數 Credit Hours		學分 Credits	時數 Credit Hours	學分 Credits	時數 Credit Hours		學分 Credits	時數 Credit Hours	學分 Credits	時數 Credit Hours	
基本能力課程 Core Capabilities Courses	中國文學欣賞與習作(一)(二) Appreciation and Practice of Chinese Literature (1) (2)	2	2	2	2																
	英文(一)(二) English (1) (2)	2	2	2	2																
	體育(一)(二) Physical Education (1) (2)	2	2	2	2																
	小計 Subtotal Credits	6	6	6	6																
	分類通識 General Education Requirements	國際視野與永續發展 International Perspective and Sustainable Development	2	2			性別平權與社會關懷 Gender Equality and Social Care	2	2			禮節與倫理 Etiquette and Ethics	2	2							
						資訊科技 Information Technology	2	2													
						人文素養 Humanities Literacy			2	2											
						身心健康 Physical and Mental Health			2	2											
	小計 Subtotal Credits	2	2			小計 Subtotal Credits	4	4	4	4	小計 Subtotal Credits	2	2								
系專業必修 Departmental Required Courses	工程力學 Engineering Mechanics-Statics	3	3			機構學 Mechanism	3	3			實務專題(一)(二) Practice Topics (I)(II)	2	3	2	3	車輛行銷管理 Automobile Marketing Management	2	2			
	車輛工程與原理 Vehicle Engineering and Principle	2	2			汽車電系技術 Automotive Electrical System Technologies	3	3			汽車綜合技術 Automotive Comprehensive Technology	3	3			微處理機與實習 Microprocessor and Practice	3	3			
	汽車引擎技術 Automotive Engine Technology			3	3	汽車底盤技術 Automotive Chassis Technology			3	3	車輛感測技術 Vehicle Sensing Technology	3	3			汽車電子通訊技術 Automotive Electrical Communication Technology			3	3	
						電動車與複合動力車原理 Introduction to Electric and Hybrid Vehicles			2	2	內燃機 Internal Combustion Engine			3	3	汽車排放管制與控制 Automotive Emission Regulation and Control			2	2	
						先進車輛科技概論 Introduction to Advanced Automotive Technology			2	2	電動車輛電整合概論 Mechatronics of Electrical Vehicle			2	2						
	小計 Subtotal Credits	5	5	3	3	小計 Subtotal Credits	6	6	7	7	小計 Subtotal Credits	8	9	7	8	小計 Subtotal Credits	5	5	5	5	
	系專業選修 Departmental Elective Courses	汽車基礎電學應用與實習 Practical Applications of Automotive Basic Electrical Theory	3	3			能源工程 Energy Engineering	2	2			熱流學 Thermofluids	3	3			品質管制 Quality Control	2	2		
微積分 Calculus		3	3			車輛材料概論 Introduction to Vehicle Materials	2	2			電腦輔助製造 Computer-Aided Manufacturing	3	3			電動車動力與控制系統實務技術 Practical Technology of Electric Vehicle Power and Control System	3	3			
創意工程 Innovation Engineering		2	2			汽車電子電路 Automotive electronic circuits	3	3			福祉載具設計 Design of Welfare Vehicle	3	3			動力學 Engineering Mechanics Dynamics	3	3			
電池概論 Battery Introduction				2	2	工程倫理 Engineering Ethics	2	2			車輛專業英文 Professional Autotmotive English	2	2			車輛零件加工技術 Vehicle Part Process Technology	3	3			
材料力學 Mechanics of Materials				3	3	電腦輔助繪圖實務 Computer-Aided Draw Practice	3	3			電動車電能系統概論 Introduction to electrical energy system of electric vehicle	2	2			輔具概論 Introduction of Assistive Technology			3	3	
汽車維修實務實習 Practice of Automobile Repair and Trouble Shooting				3	3	燃料噴射系統 Fuel Injection System			2	2	車輛控制系統 Vehicle Control System			2	2	車輛通訊與行控 Vehicle Communication and Control			2	2	
工程數學 Engineering Mathematics				3	3	潤滑學 Lubrication Theory			2	2	顧客服務技巧 Customer Relationship Service Method			2	2	汽車動態性能檢測與分析 Measurement and Analysis of Automotive Dynamic			3	3	
動力機械概論 Introduction to Power Machinery				3	3	車身技術 Autobody Technology			3	3	汽車空調技術實務 Practice of Automobile Air Conditioning Technology			3	3	精密量具與檢測技術 Metrology Practice			3	3	
						綠色科技 Green Technology			3	3	車聯網技術應用 Vehicle to Everything Technology Application			3	3	智慧車輛技術與應用 Smart Vehicle Technology and Application			3	3	
						柴油引擎檢修技術 Diesel Engine Overhaul Technology			3	3	人因概論 Introduction to Human Factors			2	2						
						工業安全管理 Industrial Safety Management			2	2											
小計 Subtotal Credits		8	8	14	14	小計 Subtotal Credits	12	12	15	15	小計 Subtotal Credits	13	13	12	12	小計 Subtotal Credits	11	11	14	14	
其他選修 Other Elective Courses		大學社會責任 University Social Responsibility			2	2	運動(項目) Sports(Item)	2	2	2	2	生命教育 Life Education	2	2							
						職場英文 Workplace English	2	2			智慧財產權 Intellectual Property Rights			2	2						
						人工智慧與物聯網概論 Introduction of AI and IoT			2	2											
	小計 Subtotal Credits			2	2	小計 Subtotal Credits	4	4	4	4	小計 Subtotal Credits	2	2	2	2						
	合計 Total Credits	21	21	23	23	合計 Total Credits	22	22	26	26	合計 Total Credits	23	24	19	20	合計 Total Credits	16	16	19	19	

附註：
Note:

1.本表112學年度進修部四技入學新生適用。
1. This curriculum is applicable to students of Continuing Education of the four-year technical program admitted for the academic year 2023.

2.最低畢業總學分為128學分，其中基本能力課程必修12學分、分類通識課程必修12學分、專業必修46學分，其餘58學分為選修學分。非本系所開科目之選修學分數，至多承認16學分為畢業學分。
2. The minimum credits for graduation is 128. This includes 24 credits courses required by the university and general education courses, “46” credits for department required courses, and the remaining “58” credits for elective credits. A maximum of 16 credits of elective credits from non-departmental courses will be recognized as graduation credits.

3.「計算機概論」(3學分)、「綠色能源概論」(3學分)等2個科目為本學院共同科目，本系學生上述2個科目均為必選修，部分科目須至院內他系修課，修習及格之科目，列計為畢業選修學分。
3. “Introduction to Computer Science” (3 credits) and “Introduction to Green Energy” (3 credits), are common subjects in the College. Students of the department are required to take the above two subjects. For some courses, students may need to take them in other departments within the college. Those courses that are completed will be counted as elective credits for graduation.

4.可至外系修讀相關課程，選讀外系課程需經本系主任與修讀外系課程主任同意。
4. Taking related courses offered by other departments is subject to approval by the department chair and the chairs of departments whose courses are selected.

5.校外實習類課程，學時為「*」校外實習類課程(暑期實習、產業實習、學期實習、海外實習及其他校外實習型態)詳見本校學生校外實習辦法。校外實習類課程總學分數至多採認18學分為畢業學分，超過18學分時，其超過部分不認列為畢業學分。
5. Off-Campus Internship-Related Courses (Summer Internship, Enterprise Internship, Semester-Based Internship, Overseas Internship, and other off-campus internship types) will be counted as 18 graduation credits. The excess will not be recognized.

6.學生選修運動(項目)為其他選修的學分數，系科最多採計2學分為畢業學分。
6. Students who choose to take sports (specific items) course as other elective credits can count a maximum of 2 credits for graduation in their department.

7.本表業經系課程委員會(112.03.28)、學院課程委員會(112.03.30)、校課程委員會(112.04.11)審議通過。
7.This curriculum list has been reviewed and approved by the Department Curriculum Committee (2023.03.28), College Curriculum Committee (2023.03.30), and University Curriculum Committee (2023.04.11).