

# 國立陽明交通大學運輸與物流管理學系跨域學程實施要點

NYCU Department of Transportation and Logistics Management

## Implementation Guidelines for Cross-Disciplinary Program

110.10.20. 110 學年度第二次系務會議修訂

112.03.22. 111 學年度第六次系務會議修訂

113.02.21. 112 學年度第五次系務會議修訂

- 一、 依據國立陽明交通大學跨域學程實施辦法，國立交通大學運輸與物流管理學系學系(以下簡稱本系)為鼓勵學生進行跨領域學習，建立跨域學習深度，協助學生拓展第二專長，提供學生可以在畢業學分不增加(或僅少量增加)情況下，修畢跨域學程，特訂定本要點。
- 一、 These Implementation Guidelines are prescribed by National Yang Ming Chiao Tung University Department of Transportation and Logistics Management (hereinafter referred to as Our Department) based on NCTU Cross-Disciplinary Program Implementation Regulations to provide the opportunity for students to proceed cross-disciplinary learning without increasing graduate credits (or only a few extra credits) in order to encourage students to conduct cross-disciplinary study, build the depth of cross-disciplinary study, and assist students expanding second specialty.
- 二、 依據國立陽明交通大學跨域學程實施辦法，跨域學程係指由陽明交通大學的學系、研究所、或學院提出模組課程，模組課程應包含該領域基礎核心知識，且總學分數以 30 學分為原則(最低可為 28 學分，最高不可超過 32 學分)，學生修習跨域學程，其課程將包含校共同必修、所屬學系的跨域學程模組課程以及第二專長系所或學院的跨域學程模組課程，並可於畢業證書上加註第二專長模組課程為「跨域專長」。
- 二、 The cross-disciplinary program here means the cross-disciplinary module curriculum proposed by the departments, institutes, or colleges in National Yang Ming Chiao Tung University. Module curriculum should include the core knowledge curriculum of the field and the total credits will be based on 30 credits (minimum 28 credits and no more than 32 credits). The cross-disciplinary program that students take will include required general education courses of the university, the cross-disciplinary program module curriculum of the department they belong to as well as the cross-disciplinary program module curriculum from the second specialty department or college. The module curriculum of the second specialty could be remarked as “Cross-Disciplinary Specialty” on the diploma.
- 三、 本要點實施對象
- 三、 Implementation objects of these Guidelines
- (一) 本系學生欲修習跨域學程者
- (一) For the student of our department who would like to take cross-disciplinary program
  1. 得於每學年度公告申請期限內向本系提出申請，申請時註明欲申請的第二專長系所或學院，申請期限將由本系課程委員會提前一個月進行公告，公告中說明需準備的審查資料以及當年度本系開放給本系學生修讀跨域學程的名額，申請案經本系課程委員會審查通過後，需送到第二專長系所或學院審查，通過雙邊審查後，方可進入跨域學程。

1. The application can be submitted to our department within the dates of annual announcements by faculty. The department or college of the second specialty that the student would like to apply for must be remarked on the application form, and the application deadline would be announced one month in advance by the Curricular Committee at our department. The information needed preparing as well as the quota open to the students in our department to study for this program in the given year will be released on the announcement. The application should be sent to the department or college of the second specialty for evaluation after it is approved by the Curricular Committee at our department. Students could take the cross-disciplinary program after passing evaluation by both sides.
2. 本系學生修習跨域學程的課程，列示於「運輸與物流管理學系跨域學程本系學生必修科目表」，其課程包含：校必修、本系基礎必修課程、本系跨域模組課程、以及第二專長系所或學院的跨域模組課程(以下簡稱他系跨域模組課程)，畢業學分以 128 學分為原則。他系跨域模組課程認定為跨域專長，於畢業證書本系名稱後加註此跨域專長。
2. The courses of cross-disciplinary program taken by students in our department should be listed on “The Required Course List for the students at our department study cross-disciplinary program in department of Transportation and Logistics Management.” The courses include required courses of the university, core curriculum at our department, cross-disciplinary module curriculum at our department, and the cross-disciplinary module curriculum of the second specialty department or college (hereinafter referred to as cross-disciplinary module curriculum at other department) with at least 128 graduate credits. The cross-disciplinary module curriculum at other department would be recognized as cross-disciplinary specialty, and it will be remarked after the title of our department on the diploma.
3. 本系學生修習跨域學程，若無法修畢跨域學程課程，得選擇放棄跨域學程，改修習原運輸與物流管理學系的學士學位課程。
3. For students at our department who study cross-disciplinary program but are not able to complete the program, they shall give up the cross-disciplinary program and take credits of bachelor degree program at their original department, Transportation and Logistics Management.

(二) 外系學生欲修習跨域學程且選擇本系做為其跨域專長者

(二) For students from other departments who would like to study cross-disciplinary program and choose our department as their cross-disciplinary specialty

1. 得於每學年度公告申請期限內向其所屬學系（以下簡稱原系）提出申請，通過原系以及本系的雙邊審查後，方可進入跨域學程。
1. They could submit the application to the department that they belong to within the dates of annual announcements by faculty; they could take the cross-disciplinary program after approved by both their original department and our department.
2. 外系學生修讀跨域學程且選擇本系做為其跨域專長者，其課程包含：校必修、原系基礎必修課程、原系跨域模組課程、以及列示於「運輸與物流管理學系跨域模組課程必修科

目表」的模組課程，畢業學分應遵循原系之規定，並於畢業證書原系名稱後加註「運輸與物流」為其跨域專長。

2. The courses for the students of other departments who would like to study cross-disciplinary program and choose our department as their cross-disciplinary specialty include required courses of the university, core curriculum at their original department, cross-disciplinary module curriculum at their original department, and the module curriculum listed on “The Required Course List for the students study cross-disciplinary module curriculum in department of Transportation and Logistics Management”. The Transportation and Logistics will be remarked as their cross-disciplinary specialty after the title of their original department on the diploma.

- 四、 本系指定至少一名專任教師擔任跨域學程導師，與外系所或學院的跨域學程導師組成導師群，專責輔導跨域學程的學生。
- 四、 Our department assigned at least one full-time teacher to be the mentor of the cross-disciplinary program and formed a mentor group with teachers of cross-disciplinary program from other department or college to give guidance to cross-disciplinary program students.
- 五、 為鼓勵不同系所或學院合作提出跨域共授課程，由兩位以上教師開授跨領域之創新整合式課程，得依本校教師授課時數核計原則規定辦理。
- 五、 In order to encourage different departments or colleges working together for the proposal of cross-disciplinary curriculum, the number of teaching hours for the innovating integrated curriculum offered by more than two teachers could be calculated according to National Yang Ming Chiao Tung University Principles for Verifying and Calculating Teachers' Teaching Hours.
- 六、 本要點如有未盡事宜，悉依本校學則及其他相關規定辦理。
- 六、 If there is any unaccomplished matter of these guidelines, it shall be handled in accordance with the school constitution of our university as well as other relevant regulations.
- 七、 本要點經校級課程委員會審查通過後實施，修訂時亦同。
- 七、 These guidelines were approved by Curricular Committee at university level before putting it into practice; the same shall be done upon any amendment thereto.

運輸與物流管理學系跨域學程本系學生 必修科目表(A)

The Required Course List for the students at our department

study cross-disciplinary program in department of Transportation and Logistics Management

類別 Category	科目名稱 Course Name	學分 Credit	開課系所 Department	備註 Remark	
本系基礎必修 (46 學分) Core curriculum at our department ( 46 credits )	微積分(一)(二) Calculus(I)(II)	8	微積分小組 Calculus Teaching Group		
	計算機概論 Introduction to Computers Science	3	管理學院 College of Management	院共同必修 Common Required Course of College	
	程式設計 Programming	3			
	會計學(一)(二) Accounting(I)(II)	6			
	經濟學(一)(二) Principles of Economics(I)(II)	6			
	線性代數 Linear Algebra	3			
	統計學(一)(二) Statistics(I)(II)	6			
	作業研究(一)(二) Operations Research(I)(II)	6			
	管理學 Management	3			
畢業專題 Graduation Project	2	運管系 Department of TLM			
本系跨域模組 (45 學分) Cross-disciplinary modules at our department ( 45 credits )	運輸學 Transportation	3	運管系 Department of TLM		
	交通工程 Traffic Engineering	3			
	運輸工程 Transportation Engineering	3			
	物流運籌管理 Strategic Logistics Management	3			
	運輸規劃 Transportation Planning	3			
	財務管理 Financial Management	3	資財系 Department of IMF	※管院基礎 課程 6 選 2 two out of six courses in the list of Management Basic Courses	
	行銷學 Principles of Marketing	3	管科系 Department of MS		
	人力資源管理 Human Resource Management	3	管科系 Department of MS		
	管理資訊系統 Management Information System	3	資財系 Department of IMF		
	生產與作業管理 Production and Operation	3	工工系 Department of IEM		
	資料庫管理 Database Management	3	資財系 Department of IMF		
	本系專業選修 3 大領域，至少修畢 2 領域內規定之課程及至少 24 學分 It is required to complete at least two areas with minimum 24 credits.				
	運輸規劃與 政策 Transportation Planning and Policy	1. 運輸經濟 Transportation Economics	3	運管系 Department of TLM	5 選 4 4 out of 5 courses
		2. 運輸網路概論 Introductory Transportation Network	3		
		3. 專案規劃與評估 Project Planning and Evaluation	3		
		4. 公共運輸 Public Transportation	3		
		5. 運具相關課程 1 門 One of the transportation mode-related courses (see Note#1)	3		
運輸營運與 科技 Transportation Operations and Technology	1. 智慧型運輸系統概論 Int. to Intelligent Transportation Systems	3			6 選 4 4 out of 6 courses
	2. 交通控制 Traffic Control	3			
	3. 公共運輸 Public Transportation	3			
	4. 交通流理論 Traffic Flow Theory	3			
	5. 運輸最佳化概念與應用 Optimization concepts and applications in transportation	3			
	6. 運具相關課程 1 門 One of the transportation mode-related courses (see Note#1)	3			
物流管理	1. 採購與作業物流(必修 Required)	3			必修 2 門

	Logistics Management	Procurement and Operations Logistics			選修 4 選 2 2 required courses and 2 (out of 4) elective courses
		2. 運輸與配送管理(必修 Required) Transportation and Distribution Management	3		
		3. 國際物流管理 International Logistics Management	3		
		4. 巨集程式與資料分析應用 Macro Programming and Data Analytics	3		
		5. 海洋運輸 Marine Transportation	3		
		6. 運輸最佳化概念與應用 Optimization concepts and applications in transportation	3		
他系跨域模組 (28-32 學分) Cross-disciplinary modules from other departments (28-32 credits)		本校各系所或學院所提供之跨域模組學程，擇一修畢。 Choose one to complete the cross-disciplinary modules offered by departments or colleges at our university.	28-32		
最低畢業學分 Minimum Graduate Credits			128	本系至多採計校共同必修 30 學分於最低畢業學分內。 At most 30 general required credits can be adopted in the minimum graduate credits.	

※備註：

1. 運具相關課程為軌道運輸、海洋運輸、或航空運輸（三選一）  
Transportation mode-related courses include: Railway Transportation, Maritime Transportation, and Air Transportation. (choose one from these three categories)
2. 如修讀之課程跨不同模組，則只能認定於其中一個模組  
If a course taken spans different modules, only one module can be admitted.

運輸與物流管理學系跨域模組課程 必修科目表(B)

The Required Course List for the students study cross-disciplinary module curriculum  
in department of Transportation and Logistics Management

類別 Category	科目名稱 Course Name		學分 Credit	開課系所 Department	備註 Remark
本系跨域模組 (30 學分) Cross-disciplinary modules at our department (30credits)	運輸學 Transportation		3	運管系 Department of TLM	
	交通工程 Traffic Engineering		3		
	運輸工程 Transportation Engineering		3		
	物流運籌管理 Strategic Logistics Management		3		
	運輸規劃 Transportation Planning		3		
修畢於畢業證書 加註「跨域專長： 運輸與物流」 It could be remarked as “Cross-Disciplinary Specialty: Transportation and Logistics” on the diploma after the module curriculum is completed.	本系專業選修 3 大領域，至少修畢 1 領域內規定之課程及至少 15 學分 It is required to complete at least one area with a minimum number of 15 credits.				
	運輸規劃與 政策 Transportation Planning and Policy	1. 運輸經濟 Transportation Economics	3	運管系 Department of TLM	5 選 4 4 out of 5 courses
		2. 運輸網路概論 Introductory Transportation Network	3		
		3. 專案規劃與評估 Project Planning and Evaluation	3		
		4. 公共運輸 Public Transportation	3		
		5. 運具相關課程 1 門 One of the transportation mode-related courses (see Note#1)	3		
	運輸營運與 科技 Transportation Operations and Technology	1. 智慧型運輸系統概論 Int. to Intelligent Transportation Systems	3		6 選 4 4 out of 6 courses
		2. 交通控制 Traffic Control	3		
		3. 公共運輸 Public Transportation	3		
		4. 交通流理論 Traffic Flow Theory	3		
		5. 運輸最佳化概念與應用 Optimization concepts and applications in transportation	3		
		6. 運具相關課程 1 門 One of the transportation mode-related courses (see Note#1)	3		
	物流管理 Logistics Management	1. 採購與作業物流(必修 Required) Procurement and Operations Logistics	3		必修 2 門 選修 4 選 2 2 required courses and 2 (out of 4) elective courses
		2. 運輸與配送管理(必修 Required) Transportation and Distribution Management	3		
		3. 國際物流管理 International Logistics Management	3		
		4. 巨集程式與資料分析應用 Macro Programming and Data Analytics	3		
		5. 海洋運輸 Marine Transportation	3		
6. 運輸最佳化概念與應用 Optimization concepts and applications in transportation		3			
總學分 Total Credits (30credits)			30		

備註：1.運具相關課程為軌道運輸、海洋運輸、或航空運輸（三選一）

Note：1. Transportation mode-related courses include: Railway Transportation, Maritime Transportation, and Air Transportation.