運輸與物流管理學系碩士班

109 學年度

最低修業年限	二年
應修學分數	30 學分(不含專題研討及個別研究學分)
應修（應選）課程及符合畢業資格之修課相關規定	一.須修習專題研討課程四次。提早畢業者不在此限，但其在學期間每學期必須依規定修習專題研討並及格。 二.「專題研討」課程須依據考取之校區選擇上課地點。 三.本系碩士班研究生必須完成修習本系碩士班開授課程21學分，且滿足下列要求，始符合畢業之條件(含各組核心課程9學分、統計與資料分析3學分、最佳化3學分)。 1.交通運輸碩士班(運輸規劃與政策組) 核心課程四門選三門 （1）運輸計畫評估 （2）運輸經濟與政策 （3）永續運輸規劃 （4）運輸風險管理 2.交通運輸碩士班(運輸營運與科技組) 核心課程四門選三門 （1）運輸系統分析 （2）運輸需求分析 （3）智慧型運輸系統 （4）運輸安全 3.物流管理碩士班核心課程四門選三門 （1）運輸與配送物流最佳化 （2）海空運與複合運輸最佳化 （3）全球供應鏈管理 （4）物流作業規劃模式 4.統計與資料分析四門選一門 （1）運輸計量分析 （2）多變量分析與應用 （3）資料科學方法 （4）巨量資料分析 5.最佳化三門選一門 （1）網路模式分析 （2）數學規劃 （3）啟發式解法

Master of Department of Transportation and Logistics Management

Academic Year 2020

Minimum Term of Study	Two Year
Minimum Credits	30 Credits

Curriculum and Regulations	1. Four seminars. Students who graduate early do not follow the regulation, but they should complete and pass the seminar for each semester during the master's program.
	2. Although the department seminars are offered in both Taipei and Hsinchu campuses, students are required to take the seminar course at the campus where they are enrolled in.
	3. TLM master's students should complete 21 credits of the courses offered by the graduate institute of TLM. Besides, they should also fulfill the following graduate requirements (including 9 credits of Core courses, 3 credits of Statistical and Data Analysis related courses, and 3 credits of Optimization related courses):
	  (1). Core courses:
	    (I) Graduate Program in Traffic and Transportation (in Transportation Planning and Policies Study)
	     Three of the following four professional courses should be selected:
	     (1) Transportation Projects Evaluation
	     (2) Transportation Economics and Policy
	     (3) Sustainable Transportation Planning
	     (4) Transportation Risk Management
	
	    (II) Graduate Program in Traffic and Transportation (in Transportation Operation and Technology Study)
	     Three of the following four professional courses should be selected:
	     (1) Transportation System Analysis
	     (2) Travel Demand Analysis
	     (3) Intelligent Transportation Systems
	     (4) Transportation Safety
	
	    (III) Graduate Program in Logistics Management
	     Three of the following four professional courses should be selected:
	     (1) Transportation and Distribution Optimization
	     (2) Maritime, Air and Intermodal Transportation Optimization
	     (3) Global Supply Chain Management
	     (4) Logistics Operation Planning Models
	
	  (2). Statistical and Data Analysis related courses:
	    One of the following five professional courses should be selected:
	    (1) Transportation Econometrics
	    (2) Multivariate Analysis
	    (3) Data Science Methods
	    (4) Big Data Analytics
	
	  (3). Optimization related courses:
	    One of the following three professional courses should be selected:
	    (1) Network Modeling Analysis
	    (2) Mathematical Programming
	    (3) Heuristics

運輸與物流管理學系博士班
109 學年度

最低修業年限	一般生：二年 ； 在職生：二年
應修學分數	27 學分(不含博士班專題研討、個別研究、論文、外國語言)
直升博士生應修學分數	42 學分（含碩士班學分）
應修（應選）課程及符合畢業資格之修課相關規定	1.須修習二門核心課程、六門本系開授科目 18 學分，且需至少修習「博士班專業課程」（含本系「博士班課程表」所列之課程，以及本院各系所所開授之博士班專業課程）三門 9 學分並及格。 2.畢業前每學期應修「運輸與物流研究專題」課程。 3.博士班核心課程分為數學類及統計類，每類至少選修一門課。核心課程若本系未開授，得至外系所修課。核心課程如下所列： ①最佳化方法：線性規劃、動態規劃、非線性規劃、組合優化、整數規劃、數學規劃、啟發式解法。 ②統計類：隨機過程、數理統計、多變量分析與應用、運輸計量分析。

PH. D. of Department of Transportation and Logistics Management
Academic Year 2020

Minimum Term of Study	Full-time students：2years ； Part-time students：2year
Minimum Credits	27 Credits (excluding the courses of Ph.D. seminar, dissertation, and foreign language.)
Minimum credits of students admitted to Ph.D. program	42 credits (including the credits of master program obtained before the admission to the Ph.D. program).
Curriculum and Regulations	1. The credits should include 18 credits of 2 core courses and 6 courses offered by TLM, and 9 credits of 3 courses of Ph.D. program should be completed and passed (for example, the courses of the "Ph.D. Program" of TLM, and all PhD courses offered by other departments or institutes of College of Management are recognized). 2. Ph.D. students should complete and pass seminar for each semester before graduation. 3. The core courses of Ph.D. program can be divided into mathematical and statistical categories. Each Ph.D. student should select at least one course from each of the two categories. Students can complete the core courses offered by other departments or graduate institutes if the core courses are not offered by TLM. The core courses are listed as follows: ①. Optimization Techniques category: Linear Programming, Dynamic Programming, Nonlinear Programming, Combinatorial Optimization, Integer Programming, Mathematical Programming, and Heuristics. ②. Statistics category: Stochastic Processes, Mathematical Statistics, Multivariate Analysis and Application and The Application of Econometrics in Transportation Data