MASTER'S DEGREES IN SUPPLY CHAIN MANAGEMENT

Master of Engineering in Supply Chain Management (Residential Program)

The Master of Engineering in Supply Chain Management degree is an intensive, 10-month residential program requiring 90 units of graduate subjects. Students complete at least 78 units of required and elective subjects, and complete a 12-unit thesis. The subject requirements for this program are described below.

Subject Requirements [1]

Fall Required Subjects		
SCM.250	Analytical Methods for Supply Chain Management I	6
SCM.259	Written Communication for Supply Chain Management	3
SCM.260[J]	Logistics Systems [2]	12
SCM.264	Databases and Data Analysis for Supply Chain Management [3]	6
SCM.THG	Graduate Thesis	3
IAP Required Subjects		
SCM.254	Analytical Methods for Supply Chain Management II	3
SCM.262	Leading Global Teams	3
Spring Required Subjects		
SCM.263	Advanced Writing Workshop for SCM	3
SCM.281	Supply Chain Public Speaking Workshop	1
SCM.C51	Machine Learning Applications for Supply Chain Management	6
6.C51	Modeling with Machine Learning: from Algorithms to Applications	6
SCM.THG	Graduate Thesis	9
Required Electives		
Select 1 elective in each of the following categories, plus additional electives to meet unit requirement:		29
Finance Electives		
Supply Chain Electives		
Analysis Electives		
Management Electives		
Total Units		**90**

[1] *Students who have already successfully completed one of the required subjects at a graduate level elsewhere may petition to replace that subject with another elective.*

[2] *With the approval of the instructor, students may substitute SCM.271 Logistics Systems Topics (3 units) plus 9 additional units of electives.*

[3] *With the approval of the instructor, students may substitute SCM.274 Databases and Data Analysis Topics for Supply Chain Management (3 units) plus 3 additional units of electives.*

[4] *With the permission of the program director, students may substitute SCM.253 Case Studies in Supply Chain Financial Analysis (6 units) plus 3 additional units of electives.*

Electives

The subjects listed below are recommended but other choices can be approved by the graduate advisor.

Finance Electives		
SCM.251	Supply Chain Financial Analysis [4]	9
SCM.253	Case Studies in Supply Chain Financial Analysis	6
15.011	Economic Analysis for Business Decisions	9
15.401	Managerial Finance	9
15.521	Accounting Information for Decision Makers	6
15.535	Business Analysis Using Financial Statements	9
Supply Chain Electives		
SCM.261[J]	Case Studies in Logistics and Supply Chain Management	6
SCM.265[J]	Global Supply Chain Management	6
SCM.266	Freight Transportation	6
SCM.283	Humanitarian Logistics	6
SCM.284	Humanitarian Logistics Project	6
SCM.289	E-Commerce and Omnichannel Fulfillment Strategies	6
SCM.290	Sustainable Supply Chain Management	6
SCM.291	Procurement Fundamentals	6
SCM.293[J]	Urban Last-Mile Logistics	6
SCM.294	Digital Supply Chain Transformation	6
Analysis Electives		
1.200[J]	Transportation: Foundations and Methods	12
1.266	Supply Chain and Demand Analytics	6
15.071	The Analytics Edge	12
15.093[J]	Optimization Methods	12
15.774	The Analytics of Operations Management	12
15.871	Introduction to System Dynamics	6
15.872	System Dynamics II	6
15.873	System Dynamics for Business and Policy	9
IDS.145[J]	Data Mining: Finding the Models and Predictions that Create Value	6

IDS.147[J]	Statistical Machine Learning and Data Science	12
IDS.305[J]	Business and Operations Analytics	6
IDS.330[J]	Real Options for Product and Systems Design	6
IDS.333[J]	Risk and Decision Analysis	6
IDS.338[J]	Multidisciplinary Design Optimization	12
Management Electives		
SCM.287[J]	Global Aging & the Built Environment	12
15.025	Game Theory for Strategic Advantage	9
15.286	Communicating with Data	6
15.386	Leading in Ambiguity: Steering Through Strategic Inflection Points	6
15.390	New Enterprises	12
15.762[J]	Supply Chain: Inventory Analytics	6
15.763[J]	Supply Chain: Capacity Analytics	6
15.768	Management of Services: Concepts, Design, and Delivery	9
15.769	Operations Strategy	9
15.784	Operations Laboratory	9
15.777	Healthcare Lab: Introduction to Healthcare Delivery in the United States	15
15.900	Competitive Strategy	9
15.904	Strategy and the CEO	6
15.915	Business Strategies for a Sustainable Future	9