MASTER'S DEGREES IN SUPPLY CHAIN MANAGEMENT

Supply Chain Management Program (*http://catalog.mit.edu/ interdisciplinary/graduate-programs/supply-chain-management*)

Master of Applied Science in Supply Chain Management (Residential Program)

The Master of Applied Science in Supply Chain Management degree is an intensive, 10-month residential program requiring 90 units of graduate subjects. Students complete at least 81 units of required and elective subjects and complete a 9-unit capstone project. 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.800	Capstone Project in Supply Chain Management	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.800	Capstone Project in Supply Chain Management	6
SCM.256	Data Science and Machine Learning for Supply Chain Management	12
or SCM.C51 & 6.C51	Machine Learning Applications for Supply Chain Management and Modeling with Machine Learning: from Algorithms to Applications	

Required Electives

Select 1 elective in each of the following categories, plus additional electives to meet unit requirement:	32
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

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

Master of Applied Science in Supply Chain Management (Blended Program)

The Master of Applied Science in Supply Chain Management degree is an intensive, five-month blended program requiring 90 units of graduate subjects. The MASc degree is only available to students who have successfully completed the MITx MicroMasters credential in Supply Chain Management. Students receive 42 units of advance standing credit for completion of the MicroMasters Credential, complete at least 39 units of required and elective subjects, and complete a 9-unit capstone project. The subject requirements for this program are described below.

Subject Requirements

Students receive advanced standing credit for completion of the MicroMasters Credential, which constitutes the first semester of the program.

SCM.500	Studies in Supply Chain Management	42

Students complete the following subjects in residence, constituting the second semester of the program.

IAP Required Subjects

SCM.258	Written Communication Topics for Supply Chain Management	1
SCM.262	Leading Global Teams	3
SCM.254	Analytical Methods for Supply Chain Management II	3

Spring Required Subjects

SCM.263	Advanced Writing Workshop for SCM	3
SCM.281	Supply Chain Public Speaking Workshop	1

SCM.256	Data Science and Machine Learning for Supply Chain Management	12
or SCM.C51 & 6.C51	Machine Learning Applications for Supply Chain Management and Modeling with Machine Learning: from Algorithms to Applications	

Capstone Requirement

A capstone report, presentation, and executive summary of the project are required.

SCM.800	Capstone Project in Supply Chain Management	9

Required Electives

Select 1 elective in each of the following categories, plus additional electives to meet unit requirement:		16
Finance Electives		
Supply Chain Electives		
Analysis Electives		
Total Units		**90**

Electives

The subjects listed below are recommended. Students may select other subjects with the approval of the advisor.

Finance Electives

SCM.251	Supply Chain Financial Analysis	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
15.777	Healthcare Lab: Introduction to Healthcare Delivery in the United States	15
15.784	Operations Laboratory	9
15.900	Competitive Strategy	9
15.904	Strategy and the CEO	6
15.915	Business Strategies for a Sustainable Future	9

Master of Engineering in Supply Chain Management (Blended Program)

The Master of Engineering in Supply Chain Management degree is an intensive, five-month blended program requiring 90 units of graduate subjects. The MEng degree is only available to students who have successfully completed the MITx MicroMasters credential in Supply Chain Management. Students receive 42 units of advance standing credit for completion of the MicroMasters Credential, complete at least 36 units of required and elective subjects, and complete a 12-unit thesis. The subject requirements for this program are described below.

Subject Requirements

Students receive advanced standing credit for completion of the MicroMasters Credential, which constitutes the first semester of the program.

SCM.500	Studies in Supply Chain Management	42

Students complete the following subjects in residence, constituting the second semester of the program.

IAP Required Subjects

SCM.254	Analytical Methods for Supply Chain Management II	3
SCM.258	Written Communication Topics for Supply Chain Management	1
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

Thesis Requirement

A master's thesis, presentation, and executive summary of the thesis are required.

SCM.THG	Graduate Thesis	12

Required Electives

Select 1 elective in each of the following categories, plus additional electives to meet unit requirement: 13

Finance Electives		
Supply Chain Electives		
Analysis Electives		

Total Units		**90**

Electives

The subjects listed below are recommended. Students may select other subjects with the approval of the advisor.

Finance Electives

SCM.251	Supply Chain Financial Analysis	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
15.777	Healthcare Lab: Introduction to Healthcare Delivery in the United States	15
15.784	Operations Laboratory	9
15.900	Competitive Strategy	9
15.904	Strategy and the CEO	6
15.915	Business Strategies for a Sustainable Future	9