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

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
- 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:

Finance Electives
- SCM.251 Supply Chain Financial Analysis 4
- 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

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
- 15.774 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

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
- 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

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
- 15.774 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

Total Units 90

2 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.

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.
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<td>Statistical Machine Learning and Data Science</td>
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<td>IDS.305[J]</td>
<td>Business and Operations Analytics</td>
<td>6</td>
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<td>IDS.330[J]</td>
<td>Real Options for Product and Systems Design</td>
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<td>IDS.333[J]</td>
<td>Risk and Decision Analysis</td>
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<td>IDS.338[J]</td>
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<td>Management Electives</td>
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<td>SCM.287[J]</td>
<td>Global Aging &amp; the Built Environment</td>
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<td>15.386</td>
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<td>15.762[J]</td>
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<td>Operations Strategy</td>
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<td>15.784</td>
<td>Operations Laboratory</td>
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<td>Healthcare Lab: Introduction to Healthcare Delivery in the United States</td>
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<td>Competitive Strategy</td>
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<td>15.904</td>
<td>Strategy and the CEO</td>
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<td>Business Strategies for a Sustainable Future</td>
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