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

Fall Required Subjects

<table>
<thead>
<tr>
<th>Subject Code</th>
<th>Subject Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCM.250</td>
<td>Analytical Methods for Supply Chain Management I</td>
<td>6</td>
</tr>
<tr>
<td>SCM.259</td>
<td>Written Communication for Supply Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>SCM.260(J)</td>
<td>Logistics Systems</td>
<td>12</td>
</tr>
<tr>
<td>SCM.264</td>
<td>Databases and Data Analysis for Supply Chain Management</td>
<td>6</td>
</tr>
<tr>
<td>SCM.800</td>
<td>Capstone Project in Supply Chain Management</td>
<td>3</td>
</tr>
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</table>

IAP Required Subjects

<table>
<thead>
<tr>
<th>Subject Code</th>
<th>Subject Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCM.254</td>
<td>Analytical Methods for Supply Chain Management II</td>
<td>3</td>
</tr>
<tr>
<td>SCM.262</td>
<td>Leading Global Teams</td>
<td>3</td>
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</table>

Spring Required Subjects

<table>
<thead>
<tr>
<th>Subject Code</th>
<th>Subject Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCM.263</td>
<td>Advanced Writing Workshop for SCM</td>
<td>3</td>
</tr>
<tr>
<td>SCM.281</td>
<td>Supply Chain Public Speaking Workshop</td>
<td>1</td>
</tr>
<tr>
<td>SCM.800</td>
<td>Capstone Project in Supply Chain Management</td>
<td>6</td>
</tr>
<tr>
<td>SCM.256</td>
<td>Data Science and Machine Learning for Supply Chain Management</td>
<td>12</td>
</tr>
</tbody>
</table>

Required Electives

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

Finance Electives

<table>
<thead>
<tr>
<th>Subject Code</th>
<th>Subject Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCM.251</td>
<td>Supply Chain Financial Analysis</td>
<td>9</td>
</tr>
<tr>
<td>SCM.253</td>
<td>Case Studies in Supply Chain Financial Analysis</td>
<td>6</td>
</tr>
<tr>
<td>15.011</td>
<td>Economic Analysis for Business Decisions</td>
<td>9</td>
</tr>
<tr>
<td>15.401</td>
<td>Managerial Finance</td>
<td>9</td>
</tr>
<tr>
<td>15.521</td>
<td>Accounting Information for Decision Makers</td>
<td>6</td>
</tr>
<tr>
<td>15.535</td>
<td>Business Analysis Using Financial Statements</td>
<td>9</td>
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</tbody>
</table>

Supply Chain Electives

<table>
<thead>
<tr>
<th>Subject Code</th>
<th>Subject Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCM.261(J)</td>
<td>Case Studies in Logistics and Supply Chain Management</td>
<td>6</td>
</tr>
<tr>
<td>SCM.265(J)</td>
<td>Global Supply Chain Management</td>
<td>6</td>
</tr>
<tr>
<td>SCM.266</td>
<td>Freight Transportation</td>
<td>6</td>
</tr>
<tr>
<td>SCM.283</td>
<td>Humanitarian Logistics</td>
<td>6</td>
</tr>
<tr>
<td>SCM.284</td>
<td>Humanitarian Logistics Project</td>
<td>6</td>
</tr>
<tr>
<td>SCM.289</td>
<td>E-Commerce and Omnichannel Fulfillment Strategies</td>
<td>6</td>
</tr>
<tr>
<td>SCM.290</td>
<td>Sustainable Supply Chain Management</td>
<td>6</td>
</tr>
<tr>
<td>SCM.291</td>
<td>Procurement Fundamentals</td>
<td>6</td>
</tr>
<tr>
<td>SCM.293(J)</td>
<td>Urban Last-Mile Logistics</td>
<td>6</td>
</tr>
<tr>
<td>SCM.294</td>
<td>Digital Supply Chain Transformation</td>
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Analysis Electives

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<tr>
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<th>Subject Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.200(J)</td>
<td>Transportation: Foundations and Methods</td>
<td>12</td>
</tr>
<tr>
<td>1.266</td>
<td>Supply Chain and Demand Analytics</td>
<td>6</td>
</tr>
<tr>
<td>15.071</td>
<td>The Analytics Edge</td>
<td>12</td>
</tr>
<tr>
<td>15.093(J)</td>
<td>Optimization Methods</td>
<td>12</td>
</tr>
</tbody>
</table>

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.
## Subject Requirements

### Fall Required Subjects

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</tr>
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<td>SCM.260[J]</td>
<td>Logistics Systems ²</td>
<td>12</td>
</tr>
<tr>
<td>SCM.264</td>
<td>Databases and Data Analysis for Supply Chain Management ³</td>
<td>6</td>
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<tr>
<td>SCM.THG</td>
<td>Graduate Thesis</td>
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### IAP Required Subjects

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<td>Supply Chain Public Speaking Workshop</td>
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</tr>
<tr>
<td>SCM.C51</td>
<td>Machine Learning Applications for Supply Chain Management</td>
<td>6</td>
</tr>
<tr>
<td>6.C51</td>
<td>Modeling with Machine Learning: from Algorithms to Applications</td>
<td>6</td>
</tr>
<tr>
<td>SCM.THG</td>
<td>Graduate Thesis</td>
<td>9</td>
</tr>
</tbody>
</table>

### Required Electives

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

- Finance Electives
- Supply Chain Electives
- Analysis Electives
- Management Electives

### Total Units

90

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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.

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### 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.

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

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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.
## Master’s Degrees in Supply Chain Management

**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

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### 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
### Master's Degrees in Supply Chain Management

**SCM.256**  
Data Science and Machine Learning for Supply Chain Management  

or **SCM.251 & 6.C51**  
Machine Learning Applications for Supply Chain Management and Modeling with Machine Learning: from Algorithms to Applications

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### Capstone Requirement

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

- **SCM.800** Capstone Project in Supply Chain Management  
3 units

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### 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  
  - **SCM.253** Case Studies in Supply Chain Financial Analysis  
  - **15.011** Economic Analysis for Business Decisions  
  - **15.401** Managerial Finance  
  - **15.521** Accounting Information for Decision Makers  
  - **15.535** Business Analysis Using Financial Statements

- **Supply Chain Electives**
  - **SCM.261[J]** Case Studies in Logistics and Supply Chain Management  
  - **SCM.265[J]** Global Supply Chain Management  
  - **SCM.266** Freight Transportation  
  - **SCM.283** Humanitarian Logistics  
  - **SCM.284** Humanitarian Logistics Project  
  - **SCM.289** E-Commerce and Omnichannel Fulfillment Strategies  
  - **SCM.290** Sustainable Supply Chain Management  
  - **SCM.291** Procurement Fundamentals  
  - **SCM.293[J]** Urban Last-Mile Logistics  
  - **SCM.294** Digital Supply Chain Transformation

- **Analysis Electives**
  - **1.200[J]** Transportation: Foundations and Methods  
  - **1.266** Supply Chain and Demand Analytics  
  - **15.071** The Analytics Edge  
  - **15.093[J]** Optimization Methods  
  - **15.774** The Analytics of Operations Management  
  - **15.871** Introduction to System Dynamics  
  - **15.872** System Dynamics II  
  - **15.873** System Dynamics for Business and Policy  
  - **IDS.145[J]** Data Mining: Finding the Models and Predictions that Create Value  
  - **IDS.147[J]** Statistical Machine Learning and Data Science  
  - **IDS.305[J]** Business and Operations Analytics  
  - **IDS.330[J]** Real Options for Product and Systems Design  
  - **IDS.333[J]** Risk and Decision Analysis  
  - **IDS.338[J]** Multidisciplinary Design Optimization

- **Management Electives**
  - **SCM.287[J]** Global Aging & the Built Environment  
  - **15.025** Game Theory for Strategic Advantage  
  - **15.286** Communicating with Data  
  - **15.386** Leading in Ambiguity: Steering Through Strategic Inflection Points  
  - **15.390** New Enterprises  
  - **15.762[J]** Supply Chain: Inventory Analytics  
  - **15.763[J]** Supply Chain: Capacity Analytics  
  - **15.768** Management of Services: Concepts, Design, and Delivery  
  - **15.769** Operations Strategy  
  - **15.777** Healthcare Lab: Introduction to Healthcare Delivery in the United States  
  - **15.784** Operations Laboratory  
  - **15.900** Competitive Strategy  
  - **15.904** Strategy and the CEO  
  - **15.915** Business Strategies for a Sustainable Future

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**Total Units: 90**

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**Electives**

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

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
1.266  Supply Chain and Demand Analytics  6
15.071  The Analytics Edge  12
15.093[J]  Optimization Methods  12
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15.872  System Dynamics II  6
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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

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
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Supply Chain Electives
SCM.261[J]  Case Studies in Logistics and Supply Chain Management  6
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SCM.290  Sustainable Supply Chain Management  6
SCM.291  Procurement Fundamentals  6
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Analysis Electives
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
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IDS.147[J]  Statistical Machine Learning and Data Science  12
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Total Units  90
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<td>Real Options for Product and Systems Design</td>
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<td>Risk and Decision Analysis</td>
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**Management Electives**

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