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>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCM.250</td>
<td>Analytical Methods for Supply Chain Management</td>
<td>6</td>
</tr>
<tr>
<td>SCM.259</td>
<td>Written Communications 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.280</td>
<td>Supply Chain Communications Workshop</td>
<td>1</td>
</tr>
<tr>
<td>SCM.800</td>
<td>Capstone Project in Supply Chain Management</td>
<td>3</td>
</tr>
</tbody>
</table>

IAP Required Subjects

<table>
<thead>
<tr>
<th>Subject Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCM.262</td>
<td>Leading Global Teams</td>
<td>3</td>
</tr>
<tr>
<td>SCM.282</td>
<td>Supply Chain Leadership Workshop</td>
<td>3</td>
</tr>
</tbody>
</table>

Spring Required Subjects

<table>
<thead>
<tr>
<th>Subject Code</th>
<th>Course Title</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>
<tr>
<td>or 6.883</td>
<td>Advanced Topics in Artificial Intelligence</td>
<td></td>
</tr>
</tbody>
</table>

Finance Choices

Select one of the following: ²

<table>
<thead>
<tr>
<th>Subject Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<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></td>
</tr>
<tr>
<td>15.521</td>
<td>Accounting Information for Decision Makers</td>
<td></td>
</tr>
<tr>
<td>SCM.251</td>
<td>Supply Chain Financial Analysis</td>
<td></td>
</tr>
</tbody>
</table>

Required Electives

Select 22 units of electives, including at least 6 units in each of the following categories:

<table>
<thead>
<tr>
<th>Elective Type</th>
<th>Subjects</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCM Electives</td>
<td>SCM.261[J] Case Studies in Logistics and Supply Chain Management</td>
<td>9</td>
</tr>
<tr>
<td>Analysis Electives</td>
<td>SCM.265[J] Global Supply Chain Management</td>
<td>6</td>
</tr>
<tr>
<td>Management Electives</td>
<td>SCM.266 Freight Transportation</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>SCM.267 Global Supply Chain Management Topics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SCM.283 Humanitarian Logistics</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>SCM.284 Humanitarian Logistics with Project</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>SCM.290 Sustainable Supply Chain Management</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>SCM.291 Procurement Fundamentals</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>SCM.293[J] Urban Last-Mile Logistics</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>SCM.295 Supply Chain Study Trek</td>
<td>3</td>
</tr>
</tbody>
</table>

Analysis Electives

<table>
<thead>
<tr>
<th>Subject Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCM.254</td>
<td>Applied Programming and Data Analysis in Python</td>
<td>3</td>
</tr>
<tr>
<td>1.200[J]</td>
<td>Transportation Systems Analysis: Performance and Optimization</td>
<td>12</td>
</tr>
<tr>
<td>15.093[J]</td>
<td>Optimization Methods</td>
<td>12</td>
</tr>
<tr>
<td>15.774</td>
<td>The Analytics of Operations Management</td>
<td>12</td>
</tr>
<tr>
<td>15.871</td>
<td>Introduction to System Dynamics</td>
<td>6</td>
</tr>
<tr>
<td>15.872</td>
<td>System Dynamics II</td>
<td>6</td>
</tr>
<tr>
<td>IDS.145[J]</td>
<td>Data Mining: Finding the Models and Predictions that Create Value</td>
<td>6</td>
</tr>
</tbody>
</table>

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.

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

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.

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

Electives

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

<table>
<thead>
<tr>
<th>Subject Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>SCM.261[J]</td>
<td>Case Studies in Logistics and Supply Chain Management</td>
<td>9</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.267</td>
<td>Global Supply Chain Management Topics</td>
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</tr>
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<td>SCM.283</td>
<td>Humanitarian Logistics</td>
<td>6</td>
</tr>
<tr>
<td>SCM.284</td>
<td>Humanitarian Logistics with Project</td>
<td>12</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.295</td>
<td>Supply Chain Study Trek</td>
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</table>

IDS.145[J] Data Mining: Finding the Models and Predictions that Create Value

### MASTER'S DEGREES IN SUPPLY CHAIN MANAGEMENT

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDS.147[J]</td>
<td>Statistical Learning and Data Mining</td>
<td>12</td>
</tr>
<tr>
<td>IDS.330</td>
<td>Real Options for Product and Systems Design</td>
<td>6</td>
</tr>
<tr>
<td>IDS.333</td>
<td>Risk and Decision Analysis</td>
<td>6</td>
</tr>
<tr>
<td>IDS.338[J]</td>
<td>Multidisciplinary Design Optimization</td>
<td>12</td>
</tr>
</tbody>
</table>

**Management Electives**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.762[J]</td>
<td>Supply Chain Planning</td>
<td>6</td>
</tr>
<tr>
<td>15.763[J]</td>
<td>Manufacturing System and Supply Chain Design</td>
<td>6</td>
</tr>
<tr>
<td>15.768</td>
<td>Management of Services: Concepts, Design, and Delivery</td>
<td>9</td>
</tr>
<tr>
<td>15.769</td>
<td>Operations Strategy</td>
<td>9</td>
</tr>
<tr>
<td>15.784</td>
<td>Operations Laboratory</td>
<td>9</td>
</tr>
</tbody>
</table>
Supply Chain Management Program (http://catalog.mit.edu/interdisciplinary/graduate-programs/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

<table>
<thead>
<tr>
<th>Fall Required Subjects</th>
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</thead>
<tbody>
<tr>
<td>SCM.250 Analytical Methods for Supply Chain Management</td>
<td>6</td>
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<tr>
<td>SCM.259 Written Communications for Supply Chain Management</td>
<td>3</td>
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<td>SCM.260[J] Logistics Systems</td>
<td>12</td>
</tr>
<tr>
<td>SCM.264 Databases and Data Analysis for Supply Chain Management</td>
<td>6</td>
</tr>
<tr>
<td>SCM.280 Supply Chain Communications Workshop</td>
<td>1</td>
</tr>
<tr>
<td>SCM.THG Graduate Thesis</td>
<td>3</td>
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<table>
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<tr>
<th>IAP Required Subjects</th>
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<tbody>
<tr>
<td>SCM.262 Leading Global Teams</td>
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<td>SCM.263 Advanced Writing Workshop for SCM</td>
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<td>SCM.281 Supply Chain Public Speaking Workshop</td>
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<tr>
<td>SCM.THG Graduate Thesis</td>
<td>9</td>
</tr>
<tr>
<td>6.883 Advanced Topics in Artificial Intelligence</td>
<td>12</td>
</tr>
</tbody>
</table>

Finance Choices

Select one of the following: 4

| 15.011 Economic Analysis for Business Decisions | 9     |
| 15.401 Managerial Finance | 6     |
| 15.521 Accounting Information for Decision Makers | 6     |
| SCM.251 Supply Chain Financial Analysis | 6     |

Required Electives

Select 19 units of electives, including at least 6 units in each of the following categories:

<table>
<thead>
<tr>
<th>SCM Electives</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Analysis Electives</td>
<td></td>
</tr>
<tr>
<td>Management Electives</td>
<td></td>
</tr>
</tbody>
</table>

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 (3 units) plus 6 additional units of electives.

Electives

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

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<thead>
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<th>SCM Electives</th>
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<td>SCM.267 Global Supply Chain Management Topics</td>
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<td>SCM.283 Humanitarian Logistics</td>
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<td>SCM.284 Humanitarian Logistics with Project</td>
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<tr>
<td>SCM.290 Sustainable Supply Chain Management</td>
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<tr>
<td>SCM.291 Procurement Fundamentals</td>
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</tr>
<tr>
<td>SCM.293[J] Urban Last-Mile Logistics</td>
<td>6</td>
</tr>
<tr>
<td>SCM.295 Supply Chain Study Trek</td>
<td>3</td>
</tr>
</tbody>
</table>

Analysis Electives

| SCM.254 Applied Programming and Data Analysis in Python | 3     |
| 1.200[J] Transportation Systems Analysis: Performance and Optimization | 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     |
| IDS.145[J] Data Mining: Finding the Models and Predictions that Create Value | 6     |
| IDS.147[J] Statistical Learning and Data Mining | 12    |
| IDS.330 Real Options for Product and Systems Design | 6     |
| IDS.333 Risk and Decision Analysis | 6     |
| IDS.338[J] Multidisciplinary Design Optimization | 12    |

Management Electives
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<tr>
<td>15.784</td>
<td>Operations Laboratory</td>
<td>9</td>
</tr>
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Supply Chain Management Program (http://catalog.mit.edu/interdisciplinary/graduate-programs/supply-chain-management)

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.280 Supply Chain Communications Workshop 1

SCM.282 Supply Chain Leadership Workshop 3

**Spring Required Subjects**

SCM.253 Case Studies in Supply Chain Financial Analysis 3

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 6.883 Advanced Topics in Artificial Intelligence

**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**

*From the list of electives, select subjects in each of the following categories:*

**SCM Electives**

SCM.261 Case Studies in Logistics and Supply Chain Management 9

SCM.266 Freight Transportation 6

SCM.267 Global Supply Chain Management Topics 3

SCM.283 Humanitarian Logistics 6

SCM.284 Humanitarian Logistics with Project 12

SCM.290 Sustainable Supply Chain Management 6

SCM.291 Procurement Fundamentals 6

SCM.293 Urban Last-Mile Logistics 6

SCM.295 Supply Chain Study Trek 3

**Analysis Electives**

SCM.254 Applied Programming and Data Analysis in Python 3


15.871 Introduction to System Dynamics 6

15.872 System Dynamics II 6

IDS.145[J] Data Mining: Finding the Models and Predictions that Create Value 6

IDS.147[J] Statistical Learning and Data Mining 12

IDS.330 Real Options for Product and Systems Design 6

IDS.338[J] Multidisciplinary Design Optimization 12

**Management Electives**

15.762[J] Supply Chain Planning 6

15.763[J] Manufacturing System and Supply Chain Design 6

15.768 Management of Services: Concepts, Design, and Delivery 9

15.769 Operations Strategy 9

15.784 Operations Laboratory 9
Supply Chain Management Program (http://catalog.mit.edu/interdisciplinary/graduate-programs/supply-chain-management)

**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.258 Written Communication Topics for Supply Chain Management 1
- SCM.262 Leading Global Teams 3
- SCM.280 Supply Chain Communications Workshop 1
- SCM.282 Supply Chain Leadership Workshop 3

**Spring Required Subjects**

- SCM.253 Case Studies in Supply Chain Financial Analysis 3
- SCM.263 Advanced Writing Workshop for SCM 3
- SCM.281 Supply Chain Public Speaking Workshop 1
- 6.883 Advanced Topics in Artificial Intelligence 12

**Thesis Requirement**

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

- SCM.THG Graduate Thesis 12

**Required Electives**

*From the list of electives, select subjects in each of the following categories:*

| SCM Electives | 6 |
| Analysis Electives | 3 |

**Total Units** 90

**Electives**

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

**SCM Electives**

- SCM.261 Case Studies in Logistics and Supply Chain Management 9
- SCM.266 Freight Transportation 6
- SCM.267 Global Supply Chain Management Topics 3
- SCM.283 Humanitarian Logistics 6
- SCM.284 Humanitarian Logistics with Project 12
- SCM.290 Sustainable Supply Chain Management 6
- SCM.291 Procurement Fundamentals 6
- SCM.293 Urban Last-Mile Logistics 6
- SCM.295 Supply Chain Study Trek 3

**Analysis Electives**

- SCM.254 Applied Programming and Data Analysis in Python 3
- 15.764 The Theory of Operations Management 12
- 15.871 Introduction to System Dynamics 6
- 15.872 System Dynamics II 6
- IDS.145 Data Mining: Finding the Models and Predictions that Create Value 6
- IDS.147 Statistical Learning and Data Mining 12
- IDS.330 Real Options for Product and Systems Design 6
- IDS.338 Multidisciplinary Design Optimization 12

**Management Electives**

- 15.762 Supply Chain Planning 6
- 15.763 Manufacturing System and Supply Chain Design 6
- 15.768 Management of Services: Concepts, Design, and Delivery 9
- 15.769 Operations Strategy 9
- 15.784 Operations Laboratory 9