MS in Management Science and Supply Chain Management

The Master of Science in management science and supply chain management (MSSCM) is an interdisciplinary program collaboratively offered by the Barton School of Business and the College of Engineering. The program targets a wide range of diverse domestic and international applicants. The supply chain curriculum is designed in a manner that students will acquire mastery in the managerial and analytics aspects of supply chain operations and develop contemporary competencies via innovative hands-on activities and industry practices.

The Master of Science in management science and supply chain management offers two tracks:

1. Management track focuses on developing capabilities and mastery leading to value creation in global management of procurement, logistics, and operations.
2. Analytics track aims to build capabilities in the use of innovative tools and techniques in decision-making processes from design to planning phases.

Program Requirements

Students are able to earn a Master of Science in global supply chain management by choosing one of the following four options:

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coursework Option</td>
<td>33 credit hours of coursework</td>
</tr>
<tr>
<td>Certification Option</td>
<td>30 credit hours of coursework and receiving an external certification related to operations and supply chain management from ISM, ASQ, APICS or SME</td>
</tr>
<tr>
<td>Project Option</td>
<td>30 credit hours of coursework and at least 3 credit hours of degree project</td>
</tr>
<tr>
<td>Thesis Option</td>
<td>24 credit hours of coursework and at least 6 credit hours of master’s thesis</td>
</tr>
</tbody>
</table>

Students must submit a plan of study by the end of the first semester of enrollment.

The degree requires 15 credit hours of core courses, 9 credit hours of courses from a track, and electives to satisfy the degree requirements. There is a maximum of 9 credit hours of 500-600 level courses can be taken in this program. The core courses and courses in each track are listed below.

Core Courses, Required for all Tracks

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DS 850 or IME 553</td>
<td>Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>DS 865 or IME 783</td>
<td>Supply Chain Mgmt</td>
<td>3</td>
</tr>
<tr>
<td>DS 625</td>
<td>Global Procurement and Outsourcing</td>
<td>3</td>
</tr>
<tr>
<td>IB 836</td>
<td>International Business and Competitiveness</td>
<td>3</td>
</tr>
<tr>
<td>MIS 750</td>
<td>Business Intelligence and Analytics</td>
<td>3</td>
</tr>
</tbody>
</table>

Directed Electives

Select a minimum of 6 credit hours from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DS 860</td>
<td>ERP: Enterprise Resource Planning</td>
<td>3</td>
</tr>
<tr>
<td>BLAW 810</td>
<td>Law and Ethics for Business</td>
<td>3</td>
</tr>
<tr>
<td>ECON 804</td>
<td>Managerial Economics</td>
<td>3</td>
</tr>
<tr>
<td>FIN 625</td>
<td>International Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>MKT 803</td>
<td>Marketing Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ENTR 706</td>
<td>Seminar in New Product and Technology Development</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives

The remaining hours for the degree can be taken from either track.

Total Credit Hours 15-18

AnalyticsTrack

A student specializing in the analytics track is required to take IME 883 Supply Chain Analytics and a minimum of 6 credit hours from the analytics track.

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<thead>
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<tr>
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<td>Supply Chain Analytics</td>
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<tr>
<td>DS 875</td>
<td>Spreadsheet Modeling in Business</td>
<td>3</td>
</tr>
<tr>
<td>IME 550</td>
<td>Operations Research I</td>
<td>3</td>
</tr>
<tr>
<td>DS 755</td>
<td>Project Management</td>
<td>3</td>
</tr>
<tr>
<td>MIS 874</td>
<td>Management Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>MIS 884</td>
<td>Database Planning &amp; Management</td>
<td>3</td>
</tr>
<tr>
<td>MIS 600</td>
<td>Database Management Systems</td>
<td>3</td>
</tr>
<tr>
<td>ECON 731</td>
<td>Applied Econometrics</td>
<td>3</td>
</tr>
<tr>
<td>IME 880K</td>
<td>Adv Facil Plan</td>
<td>3</td>
</tr>
<tr>
<td>IME 865</td>
<td>Modeling and Analysis of Discrete Systems</td>
<td>3</td>
</tr>
<tr>
<td>IME 724</td>
<td>Statistical Methods for Engineers</td>
<td>3</td>
</tr>
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ManageTrack

A student specializing in the management track is required to take DS 890N Global Logistics and Transportation Management or DS 890G Risk Management in Global Supply Chains and a minimum of 6 credit hours from the management track.

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<tr>
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<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DS 890N or DS 890G</td>
<td>Global Logistics and Transportation Management or Risk Management in Global Supply Chains</td>
<td>3</td>
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