Master of Science in Supply Chain Management

36 semester credit hours minimum

Faculty

Degree Requirements

The Master of Science in Supply Chain Management (MS SCM) is a minimum 36 semester credit hours STEM (Science, Technology, Engineering and Mathematics) degree program that explores the key issues associated with the design and management of industrial supply chains, including methods for improving supply chain operations by lowering costs and improving quality. The depth of the program uniquely prepares students to be the next generation of business leaders with skills and competencies necessary to perform across functions within an organization. Students gain business management knowledge and analytical decision-making skills (especially for complex systems) along with real-life experiences through industry projects.

To apply for this degree program, an undergraduate degree is required (all majors are considered). Students must maintain a 3.0 grade-point average (GPA) in both core courses and in all graduate courses taken in the degree program, excluding program prerequisites to qualify for the MS degree.

Prerequisites

Students pursuing the Master of Science in Supply Chain Management degree program are required to complete one semester credit hour of MAS 6102 Professional Development course (except executive education students). In addition, knowledge of calculus is required and students who have not completed an undergraduate calculus course may satisfy the prerequisite by completing OPRE 6303 Quantitative Foundations in Business. Degree credit is not earned for program prerequisites, however, the grade achieved in prerequisites will count toward the student's grade-point average (GPA). All program prerequisites must be satisfied within the first semester of graduate study as a degree-seeking student.

Course Requirements

Core Courses: 18 semester credit hours

- OPRE 6301 Statistics and Data Analysis
- OPRE 6302 Operations Management
- OPRE 6366 Global Supply Chain Management
- OPRE 6370 Global Logistics and Transportation
- OPRE 6371 Purchasing, Sourcing and Contract Management

And choose one course from the following courses:
Elective Courses: 18 semester credit hours
Select 18 semester credit hours of master's-level courses with OPRE prefix not previously completed (any catalog year or from any courses listed below). As part of the 18 semester credit hours of elective courses, students may substitute up to six semester credit hours of master's-level courses from any unrestricted course/prefix or catalog year offered within JSOM.

- **OPRE 6009** Supply Chain Management Internship\(^2\) (required elective)
- **OPRE 6304** Operations Analytics
- **OPRE 6305** Business Analytics with R
- **OPRE 6325** Healthcare Operations Management
- **OPRE 6332** Spreadsheet Modeling and Analytics
- **OPRE 6334** Advanced Business Analytics with SAS
- **OPRE 6335** Risk and Decision Analysis
- **OPRE 6340** Flexible Manufacturing Strategies
- **OPRE 6341** Retail Operations
- **OPRE 6354** Quality Improvement in Healthcare: Six Sigma and Beyond
  - or **OPRE 6364** Lean Six Sigma
- **OPRE 6355** Deal Making Strategies
- **OPRE 6359** Statistics for Data Science
- **OPRE 6362** Project Management in Engineering and Operations
- **OPRE 6363** Inventory Control
- **OPRE 6367** Capstone Projects in Supply Chain Management
- **OPRE 6368** Industrial Applications in Supply Chains
- **OPRE 6369** Supply Chain Software with SAP
  - or **OPRE 6390** Enterprise Resource Planning with SAP
- **OPRE 6377** Demand and Revenue Management
- **OPRE 6378** Supply Chain Strategy
- **OPRE 6379** Product Lifecycle Management
- **OPRE 6382** Import and Export Trade Compliance
- **OPRE 6388** Engineering Packaged Goods Distribution
- **OPRE 6389** Managing Energy: Risk, Investment, Technology (MERIT)
Supply Chain Management Tracks

The MS SCM degree program offers students with opportunities to focus in a specific track or combination (optional) to obtain an in-depth knowledge in a specific business area depending on their interests.

The **Analytics** track is recommended for students interested in managing and analyzing large-scale data and developing organizational strategies.

- **OPRE 6304** Operations Analytics
- **OPRE 6332** Spreadsheet Modeling and Analytics
- **OPRE 6398** Prescriptive Analytics

The **Retail** track is recommended for students interested in managing retail operations, understanding demand and pricing and customer relationships.

- **OPRE 6341** Retail Operations
- **OPRE 6355** Deal Making Strategies
- **OPRE 6377** Demand and Revenue Management

The **Risk** track is recommended for students interested in understanding uncertainty, decision making in risky environment and budgeting and scheduling projects.

- **OPRE 6335** Risk and Decision Analysis
- **OPRE 6362** Project Management in Engineering and Operations
- **OPRE 6389** Managing Energy: Risk, Investment, Technology (MERIT)

The **Strategy** track is recommended for students interested in business strategy, product development and quality.

- **OPRE 6340** Flexible Manufacturing Strategies
- **OPRE 6364** Lean Six Sigma
- **OPRE 6378** Supply Chain Strategy
- **OPRE 6379** Product Lifecycle Management

1. Executive Education students may take FIN 6301 course as an elective with a prior approval of the program director.
2. Students (except executive education) may use OPRE 6009 only for their first internship and any additional internship must be completed as OPRE 6V98 (3 semester credit hours maximum). Students may also substitute OPRE 6009 with OPRE 6V98 or OPRE 6367 or JSOM Lean Six Sigma Green Belt Certificate to fulfill the internship requirement.