

**Graduate Supply Chain Courses  
Effective Spring 2020**

<b>Course Number/Title</b>	<b>Course Summary</b>
SCM 501: Basics of Operations and Supply Chain Management	This contemporary class explores basic operations and supply chain management topics, including process analysis, managing waiting lines, inventory, quality and general supply chain issues and concepts. The course is designed for students with limited business experience and without an undergraduate Supply Chain Degree to set a foundation of understanding.
SCM 502: Operations and Supply Management	This course explores Supply Chain management topics including Environmental, project, and supply chain processes. Additionally, the student will understand processes in the areas of new product introduction development; quality control; TQM (Total Quality Management)
SCM 515: Decision Models for Supply Chain Management	This course covers decision modeling approaches for supply chain management such as optimization, simulation, and decision analysis. The class will focus on technology enablement, performance management and analytics & strategy change and management. There is an emphasis on modeling using spreadsheet-oriented approaches. Additionally, this class will focus on financial spreadsheet analysis and its use in optimization.
SCM 516: Introduction to Applied Analytics	This course provides a solid foundation and deeper understanding of the use of quantitative modeling tools and techniques to solve problems faced in modern supply chains. It uses Excel workbooks to implement the appropriate quantitative methods, including forecasting demand, capacity planning of a manufacturing line and the line cycle time as it pertains to parts inventory management.
SCM 517: Data-Driven Quality Management	This course addresses the use of analytics tools and techniques to enhance the ability of quality management approaches to improve processes. Introduces modern quality management approaches including six sigma and design for six sigma. It covers the define, measure, analyze, improve and control (DMAIC) improvement cycle: the core process used to drive six sigma projects. DMAIC refers to a data-driven improvement cycle used for improving, optimizing and stabilizing business processes and designs. Provides an analytics roadmap to help users work through the DMAIC problem-solving process.
SCM 518: Analytical Decision Modeling I	This course explains the skills and knowledge necessary for mastery of the use of quantitative modeling tools and techniques to support a variety of business decisions. Also explored are, deterministic optimization techniques, including linear programming, nonlinear programming, integer programming, network models and a brief introduction to metaheuristics. It covers the use of these models for a variety of common business problems. Practical application of these models will use Excel and standalone software. It also studies how to ensure that these solutions work in a wide variety of situations (what-if analysis).
SCM 519: Analytical Decision Modeling II	This course addresses the skills and knowledge necessary to model situations where uncertainty is an important factor. It covers models including decision trees, queuing theory, Monte Carlo simulation, discrete event simulation and stochastic optimization. The class uses these models for a variety of common business problems and requires implementation of these models using Excel and stand alone software. You will study how to ensure that these solutions work in a wide variety of situations (what-if analysis).
SCM 520: Strategic Procurement	This course applies principles, philosophies, and processes of supply management to facilitate the continuous improvement and strategic design of an organization's supply management system on a global basis. The class will focus on topics like performance management and analytics, project management and governance and finance. From this course, students will have a comprehensive understanding of Supply Management and its impact on the organization.

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SCM 521: Supply Management and Negotiation	This course explores the Supply Management process of Selecting, developing and executing of appropriate sourcing strategies and processes. During this class, students will understand the importance of driving cost, quality and relationship management, as well as organizational change impacts on Supply Management of a business.
SCM 532: Supply Chain Cost and Design Issues	Strategic design and development of supply chains. Focus on cost-management tools applied to supply chain design and supplier management.
SCM 541: Logistics in the Supply Chain	Critical issues for customer perception of supply chain performance, including inventory planning, transportation, warehousing, information technology, and integrated logistics service.
SCM 542: Logistics, Globalization and Economic Development	Global trade, global networks and the influence those networks have on economic development worldwide. Exposes geographic, economic and sociopolitical perspectives on these issues and invites students to draw conclusions from an increasingly informed perspective.
SCM 545: Cases in Global Logistics	Capstone experience for students in the MS in Global Logistics program. Synthesizes learnings from previous courses and applies this learning to specific issues that have a major global logistics component.
SCM 551: Operations Planning and Execution	In this course, management of the conversion of raw materials to finished goods, including scheduling, work-in-process inventory management, and postponement/customization will be studied. Students will gain a deeper understanding of the integrated supply chain of Plan, source, make, deliver and return.
SCM 581: Management of Technology and Innovation	Technology life cycles, technology forecasting, new product development process, innovation teams, innovation best practices.
SCM 587: Project Management	This course will provide students with a comprehensive understanding of Project Management with particular focus on planning, scheduling and control of business processes. The emphasis will be on understanding team dynamics and risk analysis, as well as program management tools, governance and enabling of technology to drive Supply Chain processes.
SCM 593: Topic - Corporate Projects	Provides a synthesis of the principles in logistics and supply chain through working on an applied project that has real value with actual firms. Project management and governance will be the quintessential in the class. Projects in this capstone course typically include a strategic and problem-solving component, bringing tools developed earlier in the program to effectively solve practical supply chain management problems in practice. The class will focus on technology enablement & performance management and analytics.