

# Supply Chain Management (SCMT)

---

## Courses

### SCMT 2103. Integrated Supply Chain Management. 3 Hours.

An introduction to integrated supply chain management. Core capabilities in plan, source, make, deliver, service/customer management, new product design, strategy, governance, project management, performance management, technology enablement, and supply chain finance are explored to provide students with a comprehensive cross-functional view of demand-driven value networks. Prerequisite: WCOB 1033, ACCT 2013 and (ECON 2013 or ECON 2023), all with a grade of C or better. (Typically offered: Fall and Spring)

### SCMT 2103H. Honors Integrated Supply Chain Management. 3 Hours.

An introduction to integrated supply chain management. Core capabilities in plan, source, make, deliver, service/customer management, new product design, strategy, governance, project management, performance management, technology enablement, and supply chain finance are explored to provide students with a comprehensive cross-functional view of demand-driven value networks. Prerequisite: WCOB 1033, ACCT 2013 and (ECON 2013 or ECON 2023), all with a grade of C or better and honors standing. (Typically offered: Fall and Spring)

This course is equivalent to SCMT 2103.

### SCMT 3103. Supply Chain Management Internship. 3 Hours.

This experience is designed to give students an internship opportunity to combine their formal academic preparation with an exposure to the supply chain profession. Prerequisite: Department consent, completion of pre-business core, junior standing, and SCMT 2103 with a grade of C or better. (Typically offered: Fall, Spring and Summer)

### SCMT 3443. DELIVER: Transportation and Distribution Management. 3 Hours.

Management of functional delivery and customer service capabilities in demand-driven value networks. Applicable interfaces with enabling capabilities such as governance, performance management, analytics, and technology enablement are evaluated. Prerequisite: ((ECON 2013 and ECON 2023) or ECON 2143) and SCMT 2103 with a grade of C or better. (Typically offered: Fall and Spring)

### SCMT 3613. SOURCE: Procurement and Supply Management. 3 Hours.

This course covers the critical sourcing and procurement processes: strategic sourcing, source to pay, and supplier relationship management. Additionally, it covers innovative efforts to grow sourcing contribution to demand-driven supply chain integration, including sustainability, technology, and risk management. Prerequisite: ((ECON 2013 and ECON 2023) or ECON 2143) and SCMT 2103 with a grade of C or better. (Typically offered: Fall and Spring)

### SCMT 3623. PLAN: Inventory and Forecasting Analytics. 3 Hours.

The intent of this course is to rigorously examine two key elements of logistics: inventory control and forecasting. Coverage of the former topic specifically focuses on inventory control methods for stochastic demand and lead times. Besides a review of the associated theoretical bases, the implementation of such policies in Excel is a central component of the course. Forecasting topics covered in this course include a review of a variety of forecasting techniques and forecast error measurement. Moreover, the linkage between forecasting and inventory control is discussed. As with inventory control, students will learn how to implement various forecasting techniques in Excel. Prerequisite: ((ECON 2013 and ECON 2023) or ECON 2143) and SCMT 2103 with a grade of C or better. (Typically offered: Fall and Spring)

### SCMT 3633. Supply Chain Service and Customer Management. 3 Hours.

Management of supply chain service quality, relationships, and customer segmentation in demand-driven value networks. Applicable cross-functional interfaces, performance measurement, and integration opportunities for boundary spanning supply chain professionals are discussed with emphasis on value-added behavioral exchange dynamics. Prerequisite: SCMT 3613. (Typically offered: Irregular)

### SCMT 3643. International Logistics. 3 Hours.

Logistics activities in international business with special emphasis on international sourcing and distribution channels, international transportation, import and export procedures, international sale and payment terms, and documentation. Special emphasis is placed on current events and their effect on the management of operations of U.S.-based organizations. Prerequisite: ((ECON 2013 and ECON 2023), or ECON 2143) and SCMT 2103 with a grade of C or better. (Typically offered: Fall and Spring)

### SCMT 3653. Project Management: Supply Chain New Product Planning and Launch. 3 Hours.

Applies principles and tools of project management to supply chain industry projects in the new product development launch process to ensure alignment with supply chain processes. Experiential learning in collaborative team settings facilitate new product development and launch solutions to demand-driven value network problems. Prerequisite: (ECON 2013 and ECON 2023) or (ECON 2143 and SCMT 2103) each with a grade of C or better. (Typically offered: Fall and Spring)

### SCMT 3663. MAKE: Supply Chain Process Improvement. 3 Hours.

The course focuses on the fundamental concepts, techniques, and tools for managing production and improving business processes across the supply chain, in both manufacturing and service contexts. Philosophies, principles, approaches, and techniques students will learn and experience in this course include Lean, Total Quality Management, Theory of Constraints, Practical Scientific Thinking, and Toyota Kata. Prerequisite: SCMT 2103 with a grade of C or better. (Typically offered: Fall and Spring)

### SCMT 4003H. Honors Supply Chain Management Colloquium. 3 Hours.

Explores events, concepts and/or new developments in the field of Supply Chain Management. Prerequisite: Junior standing. (Typically offered: Irregular) May be repeated for up to 6 hours of degree credit.

### SCMT 4103. Special Topics in Supply Chain Management. 3 Hours.

Special topics in supply chain management not available in other courses. Topics are selected by the supply chain faculty for each semester each course is offered. Prerequisite: Junior standing. (Typically offered: Irregular)

### SCMT 4113. Supply Chain Management Executive in Residence. 3 Hours.

The focus of this course will be executive viewpoints in supply chain management as it relates to relational skill development. The growth of supply chain management has resulted in the need for relational skills and capabilities for supply chain professionals. The purpose of the course is to help students identify not only the current issues of the industry, but also gather various viewpoints about the topics. Each week, an executive will speak with students on a topic of his or her choice. The goal is to allow a broad collection of issues to be presented by and to the students. Prerequisite: WCOB 1033 and ACCT 2013 each with a grade of C or better. (Typically offered: Fall and Spring)

**SCMT 4123. Environmental, Social and Governance Strategies and Operations in Supply Chains. 3 Hours.**

Environmental, Social and Governance (ESG) issues can carry significant supply chain challenges, risks, and opportunities. This course focuses on the relationship between ESG and supply chain planning, sourcing, manufacturing and service operations and logistics. Topics may include values-based leadership; globalizing social and environmental sustainability; diversity, inclusion and ethics across the supply chain; and voluntary product standards and governance, stakeholder engagement, reverse logistics, humanitarian logistics, ethical sourcing, transparency, innovation, resource scarcity, waste reduction, carbon emissions, and human rights across the extended supply network. (Typically offered: Irregular)

**SCMT 4233. Supply Chain Design and Optimization. 3 Hours.**

This course focuses on supply chain network design and the underlying strategies needed to manage a supply chain as business conditions change and evolve. The purpose of this course is to provide the student with supply chain design thinking skills that they can employ to design solutions that optimize supply chain performance considering costs, constraints, and structure. The course is a combination of lecture and supply chain optimization case studies (network, transportation, and inventory). Prerequisite: SCMT 3443 and SCMT 3623. (Typically offered: Fall and Spring)

**SCMT 4633. Supply Chain Performance Management and Analytics. 3 Hours.**

Integrates the strategic directives and successful execution by using supply chain performance management and analytics to drive supply chains from end-to-end. Examines and applies data analytics and visualization tools to better manage conflicting supply chain objectives and trade-offs. Prerequisite: SCMT 2103 with a grade of "C" or better. (Typically offered: Fall and Spring)

**SCMT 4653. Supply Chain Strategy and Change Management. 3 Hours.**

Evaluate and select appropriate supply chain strategies and change management approaches for business situations. This capstone course leverages plan, source, make, deliver, customer service, and new product development capabilities to meet strategic and financial goals in demand-driven networks. Prerequisite: SCMT 3443, SCMT 3613 and SCMT 3623. (Typically offered: Fall and Spring)

**SCMT 466V. Independent Study in Supply Chain Management. 1-3 Hour.**

Permits students to explore selected topics in supply chain management, logistics and transportation. (Typically offered: Fall and Spring)

**SCMT 4853. Cross-Sector Collaboration for Sustainability. 3 Hours.**

This course explores how organizations in the three sectors of society work together in value creation by addressing social and environmental problems manifest in global supply chains. Focusing on business and nonprofit organizations, we investigate the forces that bring about and influence these collaborations from practical and theoretical perspectives. Prerequisite: Junior Standing. (Typically offered: Spring)

**SCMT 5123. Sustainable Logistics and Supply Chain Management. 3 Hours.**

Explores key sustainability concepts across supply chain functions of supply management, operations, and distribution. Course topics include values-based leadership, globalizing sustainability, marketing sustainability, voluntary product standards and governance, stakeholder engagement, reverse logistics, humanitarian logistics, and transportation. Overall, we will consider the feasibility and role of firms in producing sustainability in global supply chains. Prerequisite: Graduate Standing and Departmental Consent. (Typically offered: Irregular)

**SCMT 5133. Quantitative Methods and Decision Making. 3 Hours.**

Utilization of information, quantitative techniques, and computer application in decision making and problem solving for managers. Prerequisite: Graduate Standing and Departmental Consent. (Typically offered: Fall)

This course is cross-listed with ISYS 5403.

**SCMT 560V. Special Topics in Logistics. 1-6 Hour.**

Explores current events, concepts, and new developments in the field of logistics and transportation. Topics are selected by the Marketing and Transportation faculty for each semester the course is offered. Prerequisite: Graduate Standing and Departmental Consent. (Typically offered: Irregular) May be repeated for up to 6 hours of degree credit.

**SCMT 5623. Technology-enabled Supply Chain Design and Optimization. 3 Hours.**

This course focuses on supply chain network design and the underlying strategies needed to manage a supply chain as business conditions change and evolve. The purpose of this course is to provide the student with design thinking skills that they can employ to design solutions that optimize supply chain performance considering costs, constraints and structure. The course is a combination of lecture and supply chain optimization case studies (network, transportation and inventory). Prerequisite: Graduate Standing. (Typically offered: Fall and Spring)

**SCMT 5633. Foundations for New Product Launch and Integrated Demand-Driven Value Networks. 3 Hours.**

Supply chain management is the integration of key business processes from end user through suppliers. The focus of this course is on the business fundamentals and core processes that must be linked throughout the supply chain in order to ensure the effective development and delivery of products and services that satisfy customers. Prerequisite: Graduate Standing and Department Consent. (Typically offered: Fall and Spring)

**SCMT 5643. Transportation Strategies in the Supply Chain. 3 Hours.**

This course focuses on the setting of objectives and the design of optimal transportation strategy and alternative means of implementing transportation strategies within different types of organizations. Prerequisite: Graduate Standing and Department Consent. (Typically offered: Fall)

**SCMT 5653. Global Logistics and Supply Management. 3 Hours.**

This course examines the planning and management of logistics, but emphasizes supplier selection and development, logistics options, strategic alliances, and performance measurement. Emphasis is placed on the integration of purchasing, materials management, and multi-firm logistics planning. International logistics is also addressed within each of these topics. Prerequisite: Graduate standing and departmental consent. (Typically offered: Irregular)

**SCMT 5663. PLAN: Demand Planning and Inventory Operations. 3 Hours.**

This course focuses on 'plan' in the plan, source, make, deliver framework. It examines the integrated planning and management of supply chain activities including, notably, demand forecasting and replenishment. In addition to modeling related decisions both in within-firm and supply chain contexts, strategic issues related to interfirm coordination and collaboration will be discussed. Prerequisite: Graduate Standing and Department Consent. (Typically offered: Fall and Spring)

**SCMT 5673. Modeling Retail & Consumer Products Logistics. 3 Hours.**

This is a more quantitative approach to measuring logistics performance, modeling tradeoffs and making decisions. Topics include forecasting, inventory management, network optimization, and transportation routing. Prerequisite: Graduate Standing and Department Consent. (Typically offered: Irregular)

**SCMT 5683. SOURCE: Global Procurement and Supply Management. 3 Hours.**

In the global supply chain sourcing and procurement plays a critical role in ensuring supply, growing margins and contributing to reliable delivery to customers. This course covers the core sourcing and procurement processes of strategic sourcing, supplier relationship management and takes a leadership approach to those covering topics such as change management and business alignment issues involved. Prerequisite: Graduate Standing and Departmental Consent. (Typically offered: Spring)

**SCMT 5693. Supply Chain Performance Management and Analytics. 3 Hours.**

This course will survey standard and advanced analytical techniques used to transform data into actionable business intelligence and students will gain hands-on experience with these techniques. They will gain an understanding of the practical considerations that arise in real-world applications by means of a term project. They will gain exposure to data science software capable of advanced predictive analytics and also through cases, expose them to innovative ways in which firms are using analytics to improve supply chain management processes. Prerequisite: Graduate Standing and Department Consent. (Typically offered: Fall)

**SCMT 5713. MAKE: Achieving Operational Excellence. 3 Hours.**

This course focuses on understanding the key processes involved in providing valuable products and services for customers as well as important approaches to continuously improving these processes. Learners will leave this course with skills necessary to continuously improve the key manufacturing and service processes involved in providing valuable products and services to customers, as well as the project management competencies necessary to embedded new, innovative capabilities in their supply chains. Prerequisite: Graduate Standing and Departmental Consent. (Typically offered: Fall and Spring)

**SCMT 5723. DELIVER: Customer Service and Distribution Management. 3 Hours.**

This course is designed to provide students with a broad understanding of the customer service and delivery processes needed to drive demand-driven value networks. The emphasis of this course will focus on systemic alignment across the functional capabilities of customer fulfillment service quality, transportation, distribution and return capabilities across the supply chain, with a specific emphasis on governance, performance management and the integration of advanced technologies. Prerequisite: Graduate Standing and Departmental Consent. (Typically offered: Fall and Spring)

**SCMT 5733. Supply Chain Strategy, Governance and Change Management. 3 Hours.**

Evaluate and select appropriate supply chain strategies, change management approaches, and governance structures for business situations. This course leverages plan, source, make, deliver, customer service, and new product development capabilities to meet strategic and financial goals in demand-driven value networks. Prerequisite: Graduate Standing and Departmental Consent. (Typically offered: Fall and Spring)

**SCMT 601V. Graduate Colloquium. 1-6 Hour.**

This course familiarizes students with academic and professional issues in the discipline of supply chain management with exposure to current research and contemporary research practices, current industry trends, the publication process, professional service opportunities, and pedagogical issues. Prerequisite: Admission to the PhD program in Supply Chain Management. (Typically offered: Fall and Spring) May be repeated for up to 12 hours of degree credit.

**SCMT 636V. Special Topics in Supply Chain Management. 1-6 Hour.**

Independent reading and investigation in supply chain management. Prerequisite: Doctoral standing. (Typically offered: Fall, Spring and Summer)

**SCMT 6433. Supply Chain Management Research. 3 Hours.**

Introduces students to major streams of SCM research and discusses the interest and merit of the research question(s), the appropriateness of the theoretical framework and/or hypothesis development, the adequacy of the research design, including data collection, measurement, and analysis (methodology), the accuracy of the discussion of the results. Prerequisite: Admission to doctoral program. (Typically offered: Irregular) May be repeated for up to 6 hours of degree credit.

**SCMT 6443. Theory in Supply Chain Management. 3 Hours.**

Provides an overview of theories from fields such as strategic management and marketing and explores applications of these theories to supply chain management research. Emphasis is placed on the development of theoretically grounded testable hypotheses in the context of a broad range of SCM research areas. Prerequisite: Admission to doctoral program. (Typically offered: Irregular)

**SCMT 6453. Behavioral Supply Chain Management. 3 Hours.**

Focuses on human behavior in supply chain management. Topics may include but will not be restricted to behavior in inventory and ordering processes, in retail store execution, in global supply chain management, in the face of adversity and catastrophic supply chain risk, and in supply chain relationships. Prerequisite: Admission to doctoral program. (Typically offered: Irregular) May be repeated for up to 6 hours of degree credit.

**SCMT 6463. Research in Retail Supply Chain Management. 3 Hours.**

Focuses on retail-related supply chain management research. Seminar topics may include but will not be restricted to retail sales and order forecasting, inventory management, and store execution issues. Prerequisite: Admission to doctoral program. (Typically offered: Irregular) May be repeated for up to 6 hours of degree credit.

**SCMT 6473. Emerging Topics in Supply Chain Management. 3 Hours.**

Covers various emerging topics, such as information technology applications in the supply chain, humanitarian logistics, supply chain security, and individual-level decision-making in the supply chain. Prerequisite: Admission to doctoral program. (Typically offered: Irregular) May be repeated for up to 6 hours of degree credit.

**SCMT 6483. Supply Chain Economics. 3 Hours.**

This course familiarizes students with economic concepts and philosophies underlying the organization of economic activity in the discipline of supply chain management. Enables students to evaluate, critique, and judge the quality of scholarly supply chain research that is grounded on economic principles and ideas. Provides training in developing supply chain research grounded in economic principles and ideas into an academic paper. Prerequisite: Admission to PhD program in Supply Chain Management. (Typically offered: Fall and Spring)

**SCMT 6513. Contemporary Research in Service Supply Chain Management. 3 Hours.**

This seminar is designed for doctoral students interested in carrying out research on topics related to Service Supply Chain Management (SSCM). Therefore the course will cover recent and classic literature in the service management, operations management, and supply chain management domains. The seminar is organized as a discussion forum for conceptualization, design and execution of research on these topics. Prerequisite: Instructor Consent. (Typically offered: Irregular)

**SCMT 6523. Theory-Driven Archival Supply Chain Management Research. 3 Hours.**

The purpose of this seminar is to learn how to work with and analyze archival data in a manner that is consistent with theory and meets the rising standards and expectations of leading empirical SCM and OM journals. Particular attention will be paid to issues such as data collection, sampling, measurement, econometric issues, estimation methods, the presentation/interpretation of the results, and the assessment of the sensitivity of the results. Students will gain "hands-on" experience collecting, manipulating and analyzing large data sets. Prerequisite: Instructor Consent. (Typically offered: Irregular)

**SCMT 700V. Doctoral Dissertation. 1-18 Hour.**

Dissertation studies in supply chain management. Prerequisite: Candidacy. (Typically offered: Fall, Spring and Summer) May be repeated for degree credit.