Procurement and Supply Management

Spect to quality, flexibility, lead-time, and cost.

Manufacturing, and logistics. The role of supply chain management experiences in industry and government with knowledge and processes taught in the student's academic program. Educational employment assignment approved by the Department of Supply Chain Management.

Logistics and Transportation Management

Purchasing, manufacturing, logistics, and transportation as an integrated supply chain. Analysis and problem solving of supply chain management cases. Purchasing, manufacturing, logistics, and transportation as an integrated supply chain.

Supply Chain and Transportation Management

Introduction to International Business

Introduction to the context of international business delivered on-site in foreign settings. Fundamental concepts and principles of globalization such as multinational corporations, foreign markets and economies, internal and external market transactions, international law, cultural influences, and multinational business strategies.

Procurement Contracting

Purchasing, manufacturing, logistics, and transportation as an integrated supply chain. Analysis and problem solving of supply chain management cases. Purchasing, manufacturing, logistics, and transportation as an integrated supply chain.

Supply Chain Application and Policy (W)

Analysis and problem solving of supply chain management cases. Purchasing, manufacturing, logistics, and transportation as an integrated supply chain.

Advanced Supply Chain Project Management

Project management concepts related to planning, execution, and control of projects in supply chain environments.

Supply Chain Industry Applications

Integrated analysis and problem solving of global supply chain management applications in collaboration with Engineering. Purchasing, manufacturing, logistics, and transportation as an integrated supply chain.

Negotiations

Purchasing, manufacturing, logistics, and transportation as an integrated supply chain. Analysis and problem solving of supply chain management cases. Purchasing, manufacturing, logistics, and transportation as an integrated supply chain.

Supply Chain Decision Modeling

Decision modeling in supply chains with emphasis on forecasting, aggregate planning, material requirement planning, inventory management, transportation, supply network design, quality management, and sourcing decisions. Use of traditional and advanced spreadsheet modeling tools.

Transportation Management

Current issues and strategies in transportation management and policy. Carrier management problems and opportunities, and economic characteristics of the various modes of transportation.

Supply Chain Cost Management

Pricing and cost management basics, cost models, parametric cost modeling, process mapping for cost management, total cost of ownership, target costing for purchased materials, value analysis and value engineering, using cost analysis to support purchase negotiations, current trends in cost management.
SCM—Supply Chain Management

490 Independent Study
Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. SA: MSC 490
Supervised program of independent library or field research designed to supplement classroom study.

490H Honors Independent Study
Fall, Spring, Summer. 1 to 3 credits. SA: MSC 490H
Supervised program of library or field research designed to supplement classroom study.

491 Topics in Supply Chain Management
On Demand. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. SA: MSC 491
Advanced aspects of supply continuity and supply risk, environmentally friendly manufacturing, total quality management, supply chain metrics, electronic markets, relationship management, interfaces with research and development, innovation and other current issues in supply chain management.

800 Supply Chain Management
Fall, Spring. 3(3-0) R: Open to graduate students and not open to students in the Master of Business Administration in Business Administration or in the Supply Chain Management major. SA: MSC 800
Fundamentals of materials and logistics management. Strategic impact of the transformation process in a global economy. Quality, inventory management, logistics strategy, customer service, international procurement, management of technology.

815 Emerging Topics in Supply Management
Spring. 1 to 12 credits. A student may earn a maximum of 12 credits in all enrollments for this course. RB: SCM 800 or MBA 831 R: Open to MBA students in the Supply Chain Management major or approval of department. SA: MSC 815
Perspectives on new and emerging issues of supply management. Topics vary.

816 Emerging Topics in Operations Management
Spring. 1 to 12 credits. A student may earn a maximum of 12 credits in all enrollments for this course. RB: SCM 870 or MBA 831 R: Open to MBA students and open to master's students in the Supply Chain Management Major or approval of department. SA: MSC 816
Perspectives on new and emerging issues in operations management. Topics vary.

817 Emerging Topics in Logistics Management
Spring. 1 to 12 credits. A student may earn a maximum of 12 credits in all enrollments for this course. RB: SCM 870 or MBA 831 R: Open to MBA students and open to master's students in the Supply Chain Management Major or approval of department. SA: MSC 817
Perspectives on new and emerging issues in logistics management. Topics vary.

825 Strategic Sourcing
Spring. 1.5(1.5-0) P: MBA 831 R: Open to MBA students in the Eli Broad College of Business and The Eli Broad Graduate School of Management or approval of department. SA: MSC 825 C: SCM 826 concurrently or SCM 827 concurrently.
Strategic sourcing process. Opportunity assessment, spend and requirements analysis, supply market analysis, category sourcing, strategy development and implementation. Supplier evaluation and selection.

826 Manufacturing Design and Analysis
Spring. 1.5(1.5-0) P: MBA 831 R: Open to MBA students in the Eli Broad College of Business and The Eli Broad Graduate School of Management or approval of department. SA: MSC 826 C: SCM 825 concurrently or SCM 827 concurrently.
Designing and analyzing operations processes. Capacity planning and management, process flow and mapping, value-mapping, quality tools and techniques, dependent demand inventory techniques. Recent developments and data.

827 Competing Through Supply Chain Logistics
Spring. 1.5(1.5-0) P: MBA 831 R: Open to MBA students in the Eli Broad College of Business and The Eli Broad Graduate School of Management or approval of department. SA: MSC 827 C: SCM 825 concurrently or SCM 826 concurrently.
Logistics as a value-adding process that synchronizes demand and supply. Supply chain logistics strategy, information technology, segmentation, position, forecasting, and collaborative planning, and customer accommodation.

833 Decision Support Models
Spring. 1 to 3 credits. P: SCM 800 or MBA 831 SA: MGT 833, MSC 833
Analytical models to support decision making with specific supply chain focus. Topics include multiple regression, linear optimization, decisions under uncertainty, and forecasting.

834 Supply Chain Simulation
Spring. 1 to 3 credits. P: SCM 800 or MBA 831
Simulation models to support decision making with specific supply chain focus. Simulation concepts, programming, design methods, and results interpretation.

842 Total Quality Management
Fall. 1 to 3 credits. P: MBA 831 or SCM 800
Total quality management principles and practices, tools and techniques, implementation of continuous quality improvement programs, links to manufacturing and competitive strategies. Six Sigma and statistical quality control.

843 Sustainable Supply Chain Management
Spring. 1 to 3 credits. RB: SCM 800 or MBA 831 SA: MSC 843
Sustainability within business and supply chain contexts. Balancing ecology/waste, economy, and equity. Supply chain sustainability from design and resource management through transformation processes, to delivery to the final customer.

848 Analysis of Supply Markets and Suppliers
Fall, Spring, Summer. 2(2-0) R: Open to master's students in the Supply Chain Management Major. SA: MSC 848

852 Supply Management
Fall. 1.5(1.5-0) P: SCM 825 RB: SCM 826 and SCM 827 R: Open to MBA students in the Eli Broad College of Business and The Eli Broad Graduate School of Management or approval of department. SA: MSC 852

853 Operations Strategy
Fall. 1.5(1.5-0) P: SCM 826 RB: SCM 825 and SCM 827 R: Open to MBA students in the Eli Broad College of Business and The Eli Broad Graduate School of Management or approval of department. SA: MSC 853
Developing and implementing operations strategy. Matching of competitive priorities with operational investments and decisions. Manufacturing process choice, capability development, technology management, process simulation, linking supply chain with product type and inventory management decisions. Recent developments such as synchronized flow, management, E-commerce, and advanced performance measurement.

854 Integrated Logistics Systems
Fall. 1.5(1.5-0) P: SCM 826 RB: SCM 825 and SCM 826 R: Open to MBA students in the Eli Broad College of Business and The Eli Broad Graduate School of Management or approval of department. SA: MSC 854
Logistics systems and operations that achieve synchronized demand and supply. Transportation, inventory analysis, warehousing, materials handling, and logistics network design. Integrated performance measurement and organizational structure.

855 Supply Chain Management Technology and Applications I
Spring. 1.5(1.5-0) P: SCM 852 and SCM 853 and SCM 854 or approval of department R: Open to MBA students in the Eli Broad College of Business and The Eli Broad Graduate School of Management or approval of department. SA: MSC 855
Integration of logistics, procurement, and operations strategy in the supply chain. Problem solving approaches, decision support tools, and analytical methods. Applications through case studies and computer simulations of supply chain situations in consumer and industrial settings.
SCM—Supply Chain Management

889  Brand Protection for Supply Chain Managers
Fall, Spring, Summer. 1.5 to 3 credits. P: SCM 870 R: Open to master's students in the Supply Chain Management Major.
Introduction to general issues related to product counterfeiting and how the problem affects supply chain professionals. Foundational principles of brand protection activities as carried out through the supply chain functions of brand owners.

890  Independent Study
Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Approval of department. SA: MSC 890
Faculty-supervised independent study.

893  Operations Strategy
Summer. 2(2-0) P: SCM 870 R: Open to master's students in the Supply Chain Management major. SA: MSC 893
Manufacturing strategy as a competitive weapon. Link between manufacturing strategy and corporate strategy. Alignment of manufacturing strategy with corporate strategy, and structural and infrastructural decisions. Development and deployment of global manufacturing strategy. Adaptation of strategy to position the competitive capabilities of the firm appropriately.

910  Supply Chain Theory
Fall of odd years. 3(3-0) R: Open to doctoral students in the Department of Supply Chain Management or approval of department. SA: MSC 910
Seminar in supply chain theory, history and development.

915  Simulation Methods for Business Research
Spring of odd years. 3(3-0) P: MGT 906 or SCM 916 or approval of department R: Open to doctoral students. SA: MSC 915
Techniques and methodology for system design and policy formulation. Methodological focus on simulation and analytical techniques to develop empirical results documenting current and anticipated system performance.

923  Topics in Operations Management
Spring of odd years. 3(3-0) R: Open to doctoral students.
Current research in the field. Topics vary.

930  Foundations in Logistics Research
Fall of even years. 3(3-0) R: Open to doctoral students. SA: MSC 930
Development and management of firm logistics systems within the context of an integrated supply chain strategy. Explores foundational research in the logistics management field.

931  Simulation Methods for Business Research
Spring of odd years. 3(3-0) P: MGT 906 or SCM 916 or approval of department R: Open to doctoral students. SA: MSC 931
Techniques and methodology for system design and policy formulation. Methodological focus on simulation and analytical techniques to develop empirical results documenting current and anticipated system performance.

932  Emerging Thought and Current Trends in Logistics
Fall of odd years. 3(3-0) RB: SCM 930 R: Open to doctoral students. SA: MSC 932
Development and management of opportunities and challenges related to the financial and service implications of designing and delivering logistical solutions in global markets. Policy and business elements affecting strategic outsourcing, supply chain relationship management, global compliance, business analytics, and the use of information technology and decision support systems.

934  Logistics in Emerging Markets
Spring of even years. 3(3-0) P: MGT 906 or SCM 916 or approval of department R: Open to doctoral students. SA: MSC 934
Explores logistics in emerging markets. Focus on challenges and opportunities associated with implementing and managing logistics systems in developing economies.

940  Directed Research Paper
Spring, Summer. 1 to 12 credits. A student may earn a maximum of 36 credits in all enrollments for this course. SA: MSC 940
Directed research paper under the direction of a senior faculty member.

941  Seminar on Empirical Research
On Demand. 3(3-0) R: Open to doctoral students. SA: MSC 941
Empirical research published in the field of operations and sourcing management.

942  Seminar on Analytical Research
On Demand. 3(3-0) R: Open to doctoral students. SA: MSC 942
Analytical research published in the field of operations and sourcing management.

950  Independent Study
Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 12 credits in all enrollments for this course. R: Open to doctoral students in the Department of Supply Chain Management. SA: MSC 950
Intensive reading and research on a supply chain topic of mutual interest to a faculty member and a doctoral student.

955  Directed Research Paper
Spring, Summer. 1(1-0) R: Open to doctoral students in the Department of Supply Chain Management. SA: MSC 955
Production of research paper under the direction of a senior faculty member.

990  Independent Study
Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 12 credits in all enrollments for this course. R: Open to doctoral students in the Department of Supply Chain Management. SA: MSC 990
Intensive reading and research on a supply chain topic of mutual interest to a faculty member and a doctoral student.

994  Directed Research Paper
Spring, Summer. 1(1-0) R: Open to doctoral students in the Department of Supply Chain Management. SA: MSC 994
Production of research paper under the direction of a senior faculty member.

995  Directed Research Paper
Spring, Summer. 1(1-0) R: Open to doctoral students in the Department of Supply Chain Management. SA: MSC 995
Production of research paper under the direction of a senior faculty member.

996  Directed Research Paper
Spring, Summer. 1(1-0) R: Open to doctoral students in the Department of Supply Chain Management. SA: MSC 996
Production of research paper under the direction of a senior faculty member.

997  Directed Research Paper
Spring, Summer. 1(1-0) R: Open to doctoral students in the Department of Supply Chain Management. SA: MSC 997
Production of research paper under the direction of a senior faculty member.

998  Directed Research Paper
Spring, Summer. 1(1-0) R: Open to doctoral students in the Department of Supply Chain Management. SA: MSC 998
Production of research paper under the direction of a senior faculty member.

999  Doctoral Dissertation Research
Fall, Spring, Summer. 1 to 12 credits. A student may earn a maximum of 36 credits in all enrollments for this course. R: Open to doctoral students in the Department of Supply Chain Management or approval of department. SA: MSC 999
Doctoral dissertation research.