

MARKETING AND SUPPLY CHAIN MANAGEMENT **MSC**

**Department of Marketing and Supply Chain Management
The Eli Broad College of Business and The Eli Broad Graduate School of Management**

- 293 Cooperative Education for Business Students**
Fall, Spring. 1(1-0) A student may earn a maximum of 3 credits in all enrollments for this course. Interdepartmental with Accounting and Economics and Finance and Hospitality Business and Management. Administered by Marketing and Supply Chain Management. R: Approval of department.
Integration of pre-professional educational employment experiences in industry and government with knowledge and processes taught in the student's academic program. Educational employment assignment approved by the Department of Marketing and Supply Chain Management.
- 300 Managerial Marketing**
Fall, Spring, Summer. 3(3-0) R: Open only to juniors or seniors in the Eli Broad College of Business. Not open to students in The School of Hospitality Business. SA: ML 300, MTA 300 Not open to students with credit in MSC 327.
Analysis and strategic integration of buyer behavior, segmentation, positioning, demand analysis, information, pricing, promotion, channels, product policies, and ethics in consumer, reseller, industrial, and service markets.
- 302 Consumer and Organizational Buyer Behavior**
Fall, Spring, Summer. 3(3-0) P:M: (MSC 300) R: Open only to juniors or seniors in the Eli Broad College of Business or Food Industry Management major. SA: ML 302, MTA 302
Application of consumer behavior principles to customer satisfaction, market planning, and marketing mix decisions. Ethical, diversity, and international issues.
- 303 Introduction to Supply Chain Management**
Fall, Spring, Summer. 3(3-0) RB: Programs for which MSC 303 is a catalog-listed requirement. R: Open only to juniors or seniors in the Eli Broad College of Business. Not open to students in The School of Hospitality Business. SA: MGT 303, ML 303, MTA 303
Objectives, processes, and functions of supply chain management activities including procurement, manufacturing, and logistics. The role of supply chain processes in creating competitive advantage with respect to quality, flexibility, lead-time, and cost.

- 305 Supply Chain Management**
Fall, Spring, Summer. 4(4-0) P:M: (MSC 303) RB: Business-Supply Chain Management cognate. R: Open only to juniors or seniors in The Eli Broad College of Business or Applied Engineering Sciences major.
Supply chain operating practices and principles. Strategies for customer service, quality, procurement, manufacturing, logistics, and integrated supply chain management.
- 310 International and Comparative Dimensions of Business**
Fall, Spring, Summer. 3(3-0) R: Open only to juniors or seniors in The Eli Broad College of Business. Not open to students in The School of Hospitality Business. SA: ML 310, MTA 310
International and cross-cultural study of business decisions, enterprises, markets, and institutions. Globalization of industries and firm competitiveness. International business transactions and entry strategies.
- 313 Personal Selling and Buying Processes**
Fall, Spring. 3(3-0) SA: ML 313
The nature of channel relationships. Buying behavior and sales processes. Applications to differing industries and kinds of channel relationships.
- 317 Quantitative Business Research Methods**
Fall, Spring, Summer. 3(3-1) Interdepartmental with Statistics and Probability. Administered by Marketing and Supply Chain Management. P:M: (STT 315) R: Open only to juniors or seniors in The Eli Broad College of Business. Not open to students in The School of Hospitality Business. SA: ML 317, MTA 317
Application of statistical techniques, including forecasting, to business decision making. Includes applications of linear regression and correlation, analysis of variance, selected non-parametric tests, time series, and index numbers.
- 319 Marketing Research**
Fall, Spring. 3(3-0) P:M: (MSC 300 and MSC 317 or concurrently) R: Open only to juniors or seniors in The Eli Broad College of Business. SA: ML 319, MTA 319
Research methods designed to obtain information for marketing decisions. Research design, data collection, and interpretation of information to provide a customer orientation.

- 327 Introduction to Marketing**
Fall, Spring, Summer. 3(3-0) R: Open to juniors or seniors and open to students in the James Madison College or in the Advertising major or in the Agribusiness Management major or in the Agribusiness Management Specialization or in the Apparel and Textile Design major or in the Communication major or in the Computer Science major or in the Construction Management major or in the Economics major or in the Food Industry Management major or in the Food Industry Management Specialization or in the Interdisciplinary Studies in Social Science-Human Resources and Society major or in the Interdisciplinary Studies in Social Science major or in the Journalism major or in the Packaging major or in the Park, Recreation and Tourism Resources major or in the Retailing major or in the Security Management Specialization or in the Technology Systems Management major or in the Telecommunication, Information Studies and Media major. Not open to students with credit in MSC 300.
Survey of marketing topics - buyer behavior, segmentation, positioning, demand analysis, information, pricing, promotion, channels, product policies, and ethics in consumer, reseller, industrial, and service markets.
- 351 Retail Management**
Fall, Spring, Summer. 3(3-0) Interdepartmental with Food Industry Management. Administered by Marketing and Supply Chain Management. P:M: (MSC 300 or MSC 327) R: Open only to juniors or seniors in the Eli Broad College of Business or the Food Industry Management or Merchandising Management major. SA: ML 351, MTA 351
Domestic and international retailing structure, environment, and development. Managerial strategy. Locational, purchasing, organizational, personnel and promotional techniques. Retail budgeting and control. Social and ethical considerations.
- 371 Procurement and Supply Management**
Fall, Spring, Summer. 3(3-0) P:M: (MSC 303 and MSC 317 or concurrently) R: Open only to juniors or seniors in The Eli Broad College of Business. SA: MGT 401, ML 401, MTA 401, MSC, 401
Strategic issues in procurement and supply management. Purchasing process, procurement cycle, purchasing research, relationships with suppliers, negotiation, and commodity planning. Cost, price, and value analysis.
- 372 Manufacturing Planning and Control**
Fall, Spring, Summer. 3(3-0) P:M: (MSC 303 and MSC 317 or concurrently) R: Open only to juniors or seniors in The Eli Broad College of Business. SA: MGT 402, ML 402, MTA 402, MSC, 402
Production planning, demand management, master scheduling, materials requirements, and capacity planning. Shop floor control, computer-integrated manufacturing, and just-in-time systems.

Marketing and Supply Chain Management—MSC

- 373 Logistics and Transportation Management**
Fall, Spring, Summer. 3(3-0) P:M: (MSC 303 and MSC 317 or concurrently) R: Open only to juniors or seniors in The Eli Broad College of Business. SA: ML 442, MTA 442, MSC 442
Microanalysis of logistics and transportation services. Customer service, distribution operations, purchasing, order processing, facility design and operations, carrier selection, transportation costing, and negotiation.
- 410 Product Innovation and Management**
Fall. 3(3-0) P:M: (MSC 300 and MSC 317) R: Open only to juniors or seniors in The Eli Broad College of Business. SA: ML 410
Analytic, decision-making, and planning concepts and tools available to product managers. New product policy and development, organizational issues, and product modification and deletion.
- 412 Marketing Technology and E-Commerce**
Fall, Spring. 3(3-0) Interdepartmental with Information Technology Management. Administered by Marketing and Supply Chain Management. P:M: MSC 300 and MSC 317 and ITM 309 RB: Programs in which MSC 412 is a catalog-listed requirement. R: Open only to juniors or seniors in the Eli Broad College of Business.
Enabler technologies and their role in creating marketing opportunities, efficiencies, and innovations. Tools, applications, platforms, and infrastructures. Determination of business configurations that foster value creation from enabler technologies.
- 413 Sales Management**
Fall, Spring. 3(3-0) P:M: (MSC 300 and MSC 317) R: Open only to juniors or seniors in The Eli Broad College of Business. SA: ML 413, MTA 413
Planning, implementing, and controlling the firm's personal selling function. Analysis of sales territories. Management of recruitment, selection, training, and motivation of sales personnel. Evaluation of sales performance. Discussion of diversity and ethical issues.
- 415 International Marketing Management**
Fall, Spring. 3(3-0) P:M: (MSC 300) and (MSC 310 or EC 340) R: Open only to juniors or seniors in The Eli Broad College of Business. SA: ML 415, MTA 415
Marketing decisions, strategies, and operations of the firm involved in international business. Researching global market opportunities and formulating market entry strategies. Developing and implementing the international marketing program.
- 420 New Product Design and Development**
Spring. 3(3-0) P:M: (MSC 300 and MSC 317) R: Open only to seniors in The Eli Broad College of Business.
Practical training and experiences in design and testing of new products.
- 439 Food Business Analysis and Strategic Planning (W)**
Fall. 3(4-0) Interdepartmental with Food Industry Management. Administered by Food Industry Management. P:M: (FIM 220) and completion of Tier I writing requirement R: Open only to juniors or seniors SA: ML 439, MTA 439
Principles and techniques of business analysis and strategic planning applied to food firms. Food trend forecasts, market potential, competition and cost analyses, and business and strategic planning.
- 460 Marketing Strategy (W)**
Fall, Spring, Summer. 3(3-0) P:M: (MSC 302 and MSC 317 and MSC 319) and completion of Tier I writing requirement. R: Open only to seniors in the Marketing major. SA: ML 460, MTA 460
Identification and analysis of managerial marketing issues. Integration of marketing concepts and theories through case analysis. Ethical and international applications.
- 470 Supply Chain Application and Policy (W)**
Fall, Spring. 2(2-0) P:M: (MSC 371 and MSC 372 and MSC 373) and completion of Tier I writing requirement. R: Open only to seniors in the Supply Chain Management major. SA: ML 470, MTA 470
Analysis and problem solving of supply chain management cases. Purchasing, manufacturing, logistics, and transportation as an integrated supply chain.
- 474 Negotiations**
Fall, Spring. 2(2-0) P:M: (MSC 371 or concurrently)
Strategic negotiation, negotiation preparation, buyer-supplier relationship assessment, international negotiations, and negotiation simulation.
- 475 Decision Modeling in Supply Chain**
Fall, Spring. 2(2-0) P:M: MSC 372
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.
- 476 Transportation Management**
Fall, Spring. 2(2-0) P:M: MSC 373 or concurrently
Current issues and strategies in transportation management and policy. Carrier management problems and opportunities, and economic characteristics of the various modes of transportation.
- 479 Advanced Topics in Supply Chain Management**
Fall, Spring. 2(2-0) P:M: (MSC 371 or concurrently) and ((MSC 372 or concurrently) and (MSC 373 or concurrently))
Advanced aspects of supply continuity and supply risk, advanced project management, environmentally friendly manufacturing, total quality management, supply chain metrics, electronic markets, relationship management, interfaces with research and development, innovation, and markets. Topics vary.
- 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. R: Open only to juniors or seniors. Approval of department. SA: ML 490, MTA 490
Supervised program of independent library or field research designed to supplement classroom study.
- 490H Honors Independent Study**
Fall, Spring. 1 to 3 credits. A student may earn a maximum of 12 credits in all enrollments for this course. R: Open only to juniors or seniors in the Honors College. Approval of department. SA: ML 490H, MTA 490H
Supervised program of independent library or field research designed to supplement classroom study.
- 491 Topics in Marketing and Supply Chain Management**
Fall, Spring. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. P:M: (MSC 300 or MSC 303) and MSC 317 R: Open only to juniors or seniors in The Eli Broad College of Business. SA: ML 491, MTA 491
Current issues in specialized marketing, logistics knowledge of marketing, and environmental analysis. Strategy development for control.
- 800 Supply Chain Management**
Spring. 3(3-0) SA: ML 800, MTA 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.
- 801 Materials Management: Tactical and Strategic Perspectives**
Fall. 3(3-0) RB: MSC 800 SA: ML 801, MTA 801
Integration of procurement and operations management for competitive advantage. Strategic and tactical approaches to customer requirements. Management of supply-chains procurement, process assessment, quality, manufacturing planning and control, and technology.
- 803 Operations Management Strategy**
Spring. 3(3-0) RB: MSC 801 SA: ML 803, MTA 803
Operations management issues including quality, technology, group technology, computer integrated manufacturing, and just-in-time manufacturing.
- 805 Marketing Management**
Spring. 2 to 3 credits. SA: ML 805, MTA 805
Strategic and decision-making aspects of marketing functions. Analysis, coordination, execution of marketing programs. Development of strategies and tactics. Segmentation, marketing mix, market response modeling, and ethics in a global context.
- 806 Marketing Analysis**
Spring. 3(3-0) P:M: (MBA 820) R: Open only to M.B.A. students or approval of department. SA: ML 806, MTA 806
Analysis of data gathered for strategic and tactical marketing decisions from a variety of sources. Traditional and internet marketing research methods, statistical analysis software, sales forecasting, data mining techniques, scanner data and analysis, Web site traffic metrics and analysis.
- 807 Customer-Driven Strategies**
Fall. 3(3-0) P:M: (MBA 820) R: Open only to M.B.A. students or approval of department. SA: ML 807, MTA 807
Theories and models of consumer and business buyer behavior. Research tools that organizations use to listen to the voice of the customer. Use of information in formulating marketing strategies. Market orientation, segmentation, customer value based pricing, personal selling and sales management, branding, customer satisfaction measurement, and developing customer loyalty.
- 808 Market Development and Leadership**
Spring. 3(3-0) P:M: (MBA 820 or MSC 805) R: Open only to M.B.A. students or approval of department. SA: ML 808, MTA 808
Creative, outside-the-box, and theoretical concepts and processes for creating markets, growing markets, and establishing leadership positions in mature markets.

- 810 Technology and Product Innovation**
Spring. 3(3-0) P:M: MSC 805 or MBA 820
SA: ML 810, MTA 810
New product and technology management for technology-intensive firms. Creating new product ideas. Managing cross-functional teams. Developing and implementing new product and technology strategies.
- 811 Brand Strategy**
Fall. 3(3-0) P:M: MBA 820 R: Open only to M.B.A. students or approval of department.
SA: ML 811, MTA 811
Competitive brand development strategy, marketing analysis, and marketing planning. Simulating marketing and product decisions in globally competitive market environments. Development and execution of marketing and branding strategy and plans for a high technology firm.
- 814 Decision Support Systems in Business**
Fall. 3(3-0) Interdepartmental with Information Technology Management. Administered by Information Technology Management.
P:M: MBA 823 or ITM 309
Computer-based managerial decision support systems (DSS). Basic system architectures for DSS. Individual and group systems. Data-driven and intelligence (model) driven systems. Project analysis of a globally distributed system.
- 815 Emerging Topics in Supply Management**
Spring. 1 to 12 credits. RB: MSC 870 R: Open to masters students in the Supply Chain Management major.
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. P:M: MSC 870 R: Open to masters students in the Supply Chain Management major.
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. P:M: MSC 870 R: Open to masters students in the Supply Chain Management major.
Perspectives on new and emerging issues in logistics management. Topics vary.
- 825 Supply Management Tools**
Spring. 1(1-0) P:M: MBA 821 R: Open only to M.B.A. students or approval of department. C: MSC 826 concurrently or MSC 827 concurrently.
Analytical tools to support procurement strategy development and supplier management. Spend analysis, supplier cost and price analysis, "should cost" models, cost analysis for make-versus-buy decisions.
- 826 Manufacturing Design and Analysis**
Spring. 1(1-0) P:M: MBA 821 R: Open only to M.B.A. students or approval of department. C: MSC 825 concurrently or MSC 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(1-0) P:M: MBA 821 R: Open only to M.B.A. students or approval of department. C: MSC 825 concurrently or MSC 826 concurrently.
Logistics as a value-adding process that synchronizes demand and supply. Supply chain logistics strategy, information technology, segmental positioning, forecasting and collaborative planning, and customer accommodation.
- 833 Decision Support Models**
Fall. 3(3-0) SA: MGT 833
Analytical models to support decision making. Topics include multiple regression, linear optimization, decisions under uncertainty, and forecasting.
- 835 Supply Chain Management II**
Spring, Summer. 3(3-0) P:M: MSC 870 R: Open to masters students in the Supply Chain Management major.
Review of customer supply chain expectations and the processes used to fulfill them.
- 842 Total Quality Management**
Fall. 3(3-0) RB: MSC 800
Total quality management principles and practices, tools and techniques, implementation of continuous quality improvement programs, links to manufacturing and competitive strategies.
- 843 Environmentally Conscious Manufacturing**
Spring. 3(3-0) RB: MSC 801 and MSC 833
Elements of the environmentally responsible enterprise, with an emphasis on legal and regulatory trends, assessment measures and audits, tools and procedures, supply chain management, and frameworks. Corporate environmental responsibility as linked to product and process design.
- 852 Procurement and Sourcing Strategy**
Fall. 2(2-0) P:M: MBA 821 RB: MSC 825 and MSC 826 and MSC 827 R: Open only to M.B.A. students or approval of department.
Developing and implementing procurement strategy. Commodity strategy, insourcing and outsourcing strategy. Supplier evaluation and selection, supplier relationship management and supplier development. Strategic cost management, global sourcing, negotiation, contract management, and purchasing ethics.
- 853 Operations Strategy**
Fall. 2(2-0) P:M: MBA 821 RB: MSC 825 and MSC 826 and MSC 827 R: Open only to M.B.A. students or approval of department.
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. 2(2-0) P:M: MBA 821 RB: MSC 825 and MSC 826 and MSC 827 R: Open only to M.B.A. students or approval of department.
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**
Spring. 3(3-0) P:M: MSC 852 and MSC 853 and MSC 854 R: Open only to students in the Supply Chain Management concentration in the MBA program.
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.
- 856 Consulting Practicum For Emerging Firms**
Fall, Spring. 3(1-6)
Classroom and field experience on business consulting, defining marketing intangibles, defining scope of work, engagement management, and preparing deliverables for entrepreneurial firms. Topics include small business market research tools, marketing planning, financial management and growth management.
- 858 Advanced Entrepreneurship**
Fall, Spring. 3(1-6) R: Approval of department.
Field case experience on advanced entrepreneurial problems. Topics of cases will include navigating future growth curves of small firms; new product launches within small firms; financing for a start-up venture; refinancing for long-term stability; marketing plans for small firms; organizational and strategic planning for growing firms; and turn-around management for troubled small businesses.
- 859 Venture Management Practicum**
Spring. 3(1-4)
Application of the principles and tools of market assessment, venture development, and management in venture startup or venture growth situations.
- 860 International Business**
Fall, Spring. 3(3-0) SA: ML 860, MTA 860
Management of the firm in the multinational environment. Assessment of international modes of operations, markets, financial strategies, services, and resources. Competitive strategy.
- 861 Marketing Distribution Strategy and Analysis**
Spring. 3(3-0) P:M: MSC 805 and MSC 800
Design, management, and integration of market distribution channel structure. Interrelationships between marketing channel structure and logistics distribution structure. Design, implementation, and analysis to achieve effective and efficient marketing channels and logistics operations.
- 862 Developing Global Markets**
Fall. 3(3-0) P:M: MBA 820 or MSC 805 R: Open only to M.B.A. students or approval of department. SA: ML 862, MTA 862
Marketing strategies for international expansion. Evolution of global markets, market selection, timing, entry sequence, modes of entry, and the corporate infrastructure for global marketing expansion.
- 865 Emerging Topics in Business**
Spring. 3(3-0) RB: MBA 820 or MSC 805
SA: ML 865, MTA 865
Perspectives on new and emerging issues of business administration. Topics vary.

Marketing and Supply Chain Management—MSC

- 870 Introduction to Supply Chain Management I**
Spring, Summer. 3(3-0) R: Open to masters students in the Supply Chain Management major.
Integrated view of procurement, operations, and logistics management. Management of the flow of products from raw material sourcing and acquisition through delivery to the final customer.
- 871 Applied Data Analysis**
Summer. 3(3-0) R: Open to masters students in the Supply Chain Management major.
Quantitative and statistical methods for decision making. Hypothesis testing, regression and correlation analysis, forecasting, linear programming, decision analysis, and project management.
- 872 Distribution Fulfillment**
Summer. 2(2-0) P:M: MSC 870 R: Open to masters students in the Supply Chain Management major.
Management of the firm's value-creation process from product development through order receipt and delivery to consumer. Alternative approaches to developing customer value and the role of the demand and supply chain in providing it.
- 874 Total Quality Management and Lean Enterprise**
Summer. 3(3-0) P:M: MSC 870 R: Open to masters students in the Supply Chain Management major.
Total quality management and lean enterprise principles, practices, and techniques. Implementation of quality and lean enterprise improvement programs. Relationship to manufacturing and competitive strategies.
- 875 Manufacturing Planning and Control**
Summer. 2(2-0) P:M: MSC 870 R: Open to masters students in the Supply Chain Management major.
Planning and control functions required to match supply and demand in a manufacturing firm. Tools and methods for planning production and the resources and capacity needed to support production. Role of information and information systems in planning and control. Coordination of plans across organizations supply chain.
- 876 Logistics Operations Methods and Systems**
Summer. 2(2-0) P:M: MSC 872 or MSC 835 R: Open to masters students in the Supply Chain Management major.
Micro-analysis of logistics and transportation services including customer service and order fulfillment, distribution operations, purchasing or operation of transportation services, third-party logistics providers, and network design.
- 877 Supply Chain Management Information Technology**
Summer. 2(2-0) P:M: MSC 872 and MSC 875 and MSC 886 R: Open to masters students in the Supply Chain Management major.
Role of information technology in supply chain management, planning, and operations. Requirements, capabilities, and considerations for using information technology applications in supply chain management.
- 878 Logistics Systems Analysis**
Summer. 2(2-0) P:M: MSC 870 R: Open to masters students in the Supply Chain Management major.
Process of solving logistics problems. Applications of analysis tools and techniques to identify benefits and costs of logistics change.
- 879 Supply Chain Management-Strategy and Applications**
Summer. 3(3-0) P:M: MSC 870 RB: 15 credits in MS Supply Chain Management R: Open to masters students in the Supply Chain Management major.
Analysis and solution of supply chain management cases and simulations. Teamwork, communication, and job skills. Situations involving purchasing, manufacturing, logistics and transportation as an integrated supply chain.
- 881 Global Supply Chain Management**
Fall. 3(3-0) P:M: MSC 870 R: Open to masters students in the Supply Chain Management major.
Requirements for global operations and strategy development. Similarities and differences of international and domestic supply chain operations.
- 882 Supply Chain Management Field Study**
Fall. 6 credits. P:M: MSC 879 RB: Completion of 24 credits of Master of Science in Supply Chain Management program. R: Open to masters students in the Supply Chain Management major.
Practical application of course material to a problem or situation in the student's organization.
- 883 Technology and Product Innovation Management**
Summer. 2(2-0) P:M: MSC 874 R: Open to masters students in the Supply Chain Management major.
Management of technology and product development for high technology firms. Creating new product ideas, designing high technology products, managing cross-functional teams, developing and implementing marketing plans, interpreting marketing data, sales forecasting for new products, testing new products, assessing competitive dynamics, and coping with uncertain environmental forces.
- 884 Marketing Management**
Summer. 2(2-0) R: Open to masters students in the Supply Chain Management major.
Strategic and decision-making aspects of marketing functions. Analysis, coordination, execution of marketing programs. Development of strategies and tactics. Segmentation, marketing mix, market response modeling, and ethics in a global context.
- 885 Manufacturing/Innovation Field Study/Research Project**
Spring. 5(0-10) R: Open only to students in the Master of Science in Manufacturing and Innovation.
Directed field study or research project in manufacturing and/or innovation related subjects. Practical application of knowledge gained in prior manufacturing/innovation coursework.
- 886 Strategic Sourcing**
Summer. 2(2-0) P:M: MSC 870 R: Open to masters students in the Supply Chain Management major.
Fundamentals of strategic sourcing and supply chain management. Integration and coordination of product innovation, sourcing, manufacturing, distribution, and logistics for global competitiveness.
- 888 Capstone Project in Manufacturing**
Fall, Spring, Summer. 3(1-6) Interdepartmental with Engineering. Administered by Marketing and Supply Chain Management. R: Open only to seniors in the Manufacturing Engineering major or to students in the Manufacturing and Engineering Management major.
Problem solving in manufacturing. Design of products and processes for manufacturing using a systems approach. Teaming and communication skills are emphasized.
- 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: ML 890, MTA 890
Faculty-supervised independent study.
- 893 Operations Strategy**
Summer. 2(2-0) P:M: MSC 870 R: Open to masters students in the Supply Chain Management major.
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.
- 894 Supply Chain Inventory Management**
Spring. 3(3-0) P:M: MSC 835 R: Open to masters students in the Supply Chain Management major.
Inventory management concepts and technologies. Development of forecasting, demand planning, inventory policy, and inventory modeling skills.
- 895 Supply Chain Transportation Management**
Spring. 3(3-0) P:M: MSC 870 and MSC 835 R: Open to masters students in the Supply Chain Management major.
Current issues in transportation management and policy. Carrier management problems and opportunities, and economic characteristics of various modes of transportation.
- 896 Logistics of Manufacturing and Service Operations**
Spring. 3(3-0) P:M: MSC 876 R: Open to masters students in the Supply Chain Management major.
Logistics operations in support of manufacturing after-market support, and customer fulfillment operations.
- 897 Supply Chain Integration**
Spring. 3(3-0) P:M: MSC 895 and MSC 896 and MSC 894 R: Open to masters students in the Supply Chain Management major.
Assessment and development of integrated supply chain strategies. Application of analytical tools to evaluate supply chain alternatives.
- 898 Supply Chain Consulting and Auditing**
Spring. 3(3-0) P:M: MSC 835 R: Open to masters students in the Supply Chain Management major. C: MSC 897 concurrently.
Development of supply chain consulting skills. Consultative processes. Role of consulting and consultative selling.

- 905 Theory Development and Research Design in Marketing**
Fall. 3(3-0) R: Open only to Ph.D. students
SA: ML 905, MTA 905
Research concepts and scientific methods for the study of marketing. Formulation of hypotheses, concepts of measurement, and quantitative methods.
- 907 Causal Modeling in Marketing**
Fall. 3(3-0) RB: MSC 906 R: Open only to Ph.D. students. SA: ML 907, MTA 907
Statistical methods in marketing, emphasis on causal modeling.
- 910 Seminar in Marketing Theory**
Fall of even years. 3(3-0) R: Open only to Ph.D. students.
Development, critical analysis, and integration of marketing theory. Theory grounding and professional standards of scholarship. Methods of meta analysis, historical analysis, and game theoretic analysis.
- 911 Proseminar in Marketing Literature and Research Criticism**
Fall of odd years. 3(3-0) R: Open only to Ph.D. students.
Classic and contemporary contributions in marketing. Fundamental trends shaping the evolution of markets, competition, and marketing institutions. Major theoretical explanations of marketing strategy and behavior such as the resource-based theory and knowledge-based view of the firm.
- 912 Seminar in Buyer Behavior**
Spring of even years. 3(3-0) R: Open only to Ph.D. students.
Organizational and consumer behavior and their relationship to marketing strategy. Attitudes, information processing, decision making, and attribution theory. Methodological tools appropriate for analyzing buyer behavior such as conjoint analysis.
- 913 Seminar in Marketing Channels and Marketing Relationships**
Spring of odd years. 3(3-0) R: Open only to Ph.D. students.
Interorganizational issues in marketing. Theoretical perspectives on marketing channels, supplier relations, strategic alliances, firm boundaries, firm capabilities, and logistics. Integration of existing theories. Research methods in marketing channels and marketing relationships.
- 918 Procurement and Sourcing Theory**
Fall of even years. 3(3-0) R: Open only to Ph.D. students. SA: MGT 918
Theoretical models explaining procurement and sourcing strategy. Frameworks to guide research.
- 920 Seminar in Manufacturing Strategy**
Fall of even years. 3(3-0) RB: MSC 803 R: Open only to Ph.D. students. SA: ML 920, MTA 920, MGT 920
Research in manufacturing strategy. Quality, technology, flexibility, innovation. Theory building.
- 921 Seminar in Inventory Management**
Fall of odd years. 3(3-0) RB: MSC 803 R: Open only to Ph.D. students SA: ML 921, MTA 921, MGT 921
Classical, just-in-time, and multi-echelon inventory control models. Forecasting.
- 923 Topics in Operations Management**
Spring of odd years. 3(3-0) RB: MSC 803 R: Open only to Ph.D. students SA: ML 923, MTA 923, MGT 923
Current research in the field. Topics vary.
- 930 Theory of Logistics Systems**
Fall of odd years. 3(3-0) R: Open only to Ph.D. students.
Development and management of firm logistics systems within the context of an integrated supply chain strategy. Elements of network, economic, behavioral, and systems theory in the design, management, and control of logistics systems.
- 931 Simulation Methods for Marketing and Logistics**
Spring of odd years. 3(3-0) R: Open only to Ph.D. students.
Techniques and methodology for marketing and supply chain system design, customer service, and policy formulation. Methodological focus on simulation and analytical techniques to develop empirical results documenting current and anticipated system performance.
- 932 Logistics and Public Policy**
Fall of even years. 3(3-0) RB: MSC 930 R: Open only to Ph.D. students.
History and rationale of government in the development, maintenance, and control of transportation and supply chain infrastructure. Interaction of users, carriers, government, and public to create, interpret, and refine national economic and environmental policies.
- 940 International Business Theory**
Fall of even years. 3(3-0) RB: MSC 860 or MSC 862 R: Open only to Ph.D. students. SA: ML 940, MTA 940
Theories explaining international business phenomena. Varying perspectives on international business activities, concepts, and frameworks.
- 941 International Business Research Issues**
Spring of odd years. 3(3-0) RB: MSC 940 R: Open only to Ph.D. students. SA: ML 941, MTA 941
Scientific methods of research on international business. Topics include cultural bias and organizing multi-country studies.
- 990 Independent Study**
Fall, Spring. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Open only to Ph.D. students. SA: ML 924, MTA 924
Intensive reading and research on a marketing topic of mutual interest to a faculty member and a Ph.D. student.
- 995 Directed Research Paper**
Fall, Spring, Summer. 1(1-0) R: Open only to Ph.D. students in the Department of Marketing and Supply Chain Management. SA: ML 995, MTA 995
Production of research paper under the direction of a senior faculty member.
- 999 Doctoral Dissertation Research**
Fall, Spring, Summer. 1 to 24 credits. A student may earn a maximum of 99 credits in all enrollments for this course. R: Open only to Ph.D. students in the Department of Marketing and Supply Chain Management. Approval of department. SA: ML 999, MTA 999
Doctoral dissertation research.