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. 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, Summer. 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 Agricultural Business Management Specialization or in the Apparel and Textile Design major or in the Communications 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 Business 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 or the Economics major or in the Food Industry Management major or in the Construction Management major or in the Agribusiness Management major or in the Agricultural Business Management Specialization or in the Apparel and Textile Design major or in the Computer Science major 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 James Madison College or in the Advertising major or in the Agribusiness Management major or in the Agricultural Business Management Specialization or in the Apparel and Textile Design major or in the Communications 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 Business 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. 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 401, ML 401, MTA 401, MTC 401, MSA 401, MSC 401, MSA 402, MSA 402, MSA 402, MSA 402, MSA 402 Production planning, demand management, master scheduling, materials requirements, and capacity planning. Shop floor control, computer-integrated manufacturing, and just-in-time systems.
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

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 1 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. 1(2-0) P:M (MSC 371 or concurrently) 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.

476 Transportation Management
Fall, Spring. 2(2-0) P:M MSC 373 or concurrently
R: Open only to juniors or seniors in The Eli Broad College of Business.
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)
R: Open only to juniors or seniors in The Eli Broad College of Business.
Advanced aspects of 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.

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) 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, Spring. 3(3-0) R: Open only to seniors in The Eli Broad College of Business. 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. 2 to 3 credits. 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.
MSC—Marketing and Supply Chain Management

808 Market Creation, Growth, and Domination
Spring. 3(3-0) P:M: MBA 820 or MSC 805
R: Open to graduate students in the Master of Business Administration in Business Administration or approval of department. Creative, outside-the-box, and theoretical concepts and processes for creating markets, growing markets, and establishing leadership positions in mature markets.

810 Innovating and Launching Products and Services
Spring. 3(3-0) P:M: MSC 805 or MBA 820
R: Open to MBA students in the Eli Broad College of Business and The Eli Broad Graduate School of Management or in the Department of Marketing and Supply Chain Management or approval of department. New product and service development for competitive/intensive firms. Creating new product and service ideas using voice of customer as well as creative-inventive paradigms. Managing cross-functional teams. Developing and implementing innovation strategies. New product development, regulatory regimes, service architecture approaches and launch strategies. Decision making in the context of innovation.

811 Brand Strategy
Fall. 3(3-0) P:M: MBA 820 R: Open only to M.B.A. students or approval of department. SA: MGT 811, MBA 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. 1 to 12 credits. 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.

848 Analysis of Supply Markets and Suppliers
Spring. 2(2-0) P:M: MSC 870 R: Open to graduate students in the Eli Broad College of Business and The Eli Broad Graduate School of Management or in the Department of Marketing and Supply Chain Management or in the Supply Chain Management major. Approval of department.

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 measures.

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
Fall. 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(1-4)
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 Corporate Entrepreneurship
Fall. Spring. 3(3-0) R: Open to MBA students in the Department of Marketing and Supply Chain Management or approval of department.
New venture strategies within corporate business environment. Market and analysis and planning. Product development, sales force deployment, and advertising and promotion strategy. Funding, and asset utilization and deployment. Exit and spin-off strategies. Employs team-based, non-traditional, and experiential learning methods.
859 Venture Management Practicum
Spring. 3(1-3) P:M: MSC 805 and MSC 800
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.

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 R: 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.

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
Summer. 2(2-0) P:M: MSC 870 R: Open 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. Team building and communication skills are emphasized.

890 Independent Study
Fall, 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) 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) R: MSC 803 R: Open only to Ph.D. students. SA: ML 920, MTA 920, MGT 920

921 Seminar in Inventory Management
Fall of odd years, 3(3-0) R: 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) R: 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) R: 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) R: 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.