

## Management—MGT

- 824 Management and Organizational Behavior**  
Spring. 3(3-0) R: Open only to students in Business Management of Manufacturing, non-business masters students, or doctoral students in all majors. SA: MGT 806  
Micro and macro models of organizational behavior applied to the management of people, group processes, and organization design. Motivation, diversity, leadership, group performance, organization structure and culture.
- 831 Managing Power, Empowerment, and Involvement**  
Fall. 3(3-0) RB: (MBA 824) R: Open only to students in the Graduate School of Management or with departmental permission.  
Assessment and evaluation of power and empowerment in organizations. High involvement management and organizational effectiveness. Ethical issues in the use of power and empowerment as managerial tools.
- 832 Negotiation and Conflict Management**  
Spring. 3(3-0) RB: (MBA 824) R: Open only to students in the Graduate School of Management or approval of department.  
Negotiation and bargaining to manage people and interpersonal relations. Developmental processes, stages, and types of conflict. Approaches to conflict management and resolution.
- 840 Leadership: A Personal Challenge**  
Fall, Spring. 3(3-0) R: Open only to students in the Graduate School of Management or with departmental permission.  
Review and evaluation of classic and popular theories of leadership. Guided self-assessment of current leadership style and strengths. Further development of leadership abilities through case analyses and class exercises.
- 842 Change Management and Evaluation**  
Spring of even years. 3(3-0) R: Open only to students in The Graduate School of Management or approval of department.  
Understanding, diagnosing and changing organizations. Managing the change process. Micro and macro organizational interventions.
- 852 Entrepreneurship: New Business Planning and Initiation**  
Fall. 3(3-0) R: Open only to students in the Graduate School of Management or with departmental permission.  
Assessment of the viability of a business idea. Development of a market analysis, project strategy, and plan to initiate the business. Identification and analysis of factors critical to new business financing and success.
- 870 Strategic Management**  
Fall, Spring. 3(3-0) R: Open only to second-year M.B.A. students.  
Determination of the strategic direction of the firm and management of strategic processes in the firm. Integration of environmental factors and organizational functions in the analysis and solution of management problems.

- 871 Business Processes and Strategies**  
Summer. 3(3-0) RB: Undergraduate degree in accounting. R: Open only to Master of Science students in Accounting and Business Processes.  
Organizational goals, design, and control of the global business enterprise. Strategies for creating value and sustaining competitive advantage across the firm's value chain.
- 875 Change Management**  
Spring. 2(2-0) R: Open only to students in the Master of Science in Logistics and the Master of Science in Manufacturing and Innovation.  
Role and process of organizational change management. Types of change, identifying need for change, and change management process.
- 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: Open only to graduate students in Business. Approval of department.  
Faculty-supervised independent study.
- 906 Seminar in Organizational Research Methods**  
Spring. 3(3-0) R: Open only to Ph.D. students.  
Methods for scientific research in the areas of organizational behavior, personnel and organizational theory. Theory building, hypothesis formation and testing, reliability theory, construct validity, external validity, research design.
- 907 Seminar in Organizational Behavior**  
Fall of even years. 3(3-0) R: Open only to Ph.D. students.  
Directed readings on the behavior of individuals within organizations. Theory and empirical research on perception, decision-making, work motivation, work attitudes, leadership and group dynamics.
- 908 Seminar in Organizational Theory**  
Fall of odd years. 3(3-0) RB: (MGT 906) R: Open only to Ph.D. students.  
Formal organizations viewed as rational, natural and open systems. Survey of contemporary theory and empirical research.
- 909 Seminar in Human Resource Management**  
Spring of odd years. 3(3-0) R: Open only to Ph.D. students.  
Classic and current empirical research. Job analysis, personnel selection, training, and incentive systems.
- 910 Seminar in Strategic Management**  
Fall of even years. 3(3-0) R: Open only to Ph.D. students.  
Review of recent research literature. Topics include developments in strategic types, identification of strategic groups, strategy formulation, implementation, and decision making.
- 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 Management.  
Doctoral dissertation research.

## 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

- 101 Introduction to Business**  
Fall, Spring. 3(3-0) R: Not open to juniors or seniors in the College of Business. SA: ML 101  
Role of business in society. Activities and functions of business organizations. Major issues and challenges facing business: globalization, social responsibility, diversity. Contemporary management practices.
- 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; Economics; Finance; Management; Hospitality Business. 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) R: Open only to juniors or seniors in the Eli Broad College of Business and to students in programs for which MSC 303 is a catalog-listed requirement. 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) R: Open only to juniors or seniors in The Eli Broad College of Business or Engineering Arts 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. 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 only to students in programs for which MSC 327 is a catalog-listed requirement. 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.
- 335 Food Marketing Management**  
Spring. 3(3-0) Interdepartmental with Food Industry Management. Administered by Department of Agricultural Economics. P:M: (FIM 220 or MSC 300) SA: ML 335, MTA 335, FSM 335  
Management decision-making in food industry organizations (processors, wholesalers, retailers). Marketing and sales in response to customer and consumer needs. Distribution and merchandising systems in domestic and international contexts.
- 351 Retail Management**  
Fall, Spring, Summer. 3(3-0) Interdepartmental with Food Industry 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.
- 401 Procurement and Supply Management**  
Fall, Spring, Summer. 3(3-0) P:M: (MSC 305 and MSC 317) R: Open only to juniors or seniors in The Eli Broad College of Business. SA: MGT 401, ML 401, MTA 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.
- 402 Manufacturing Planning and Control**  
Fall, Spring, Summer. 3(3-0) P:M: (MSC 305 and MSC 317) R: Open only to juniors or seniors in The Eli Broad College of Business. SA: MGT 402, ML 402, MTA 402  
Production planning, demand management, master scheduling, materials requirements, and capacity planning. Shop floor control, computer-integrated manufacturing, and just-in-time systems.
- 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.
- 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(3-0) Interdepartmental with Food Industry Management. Administered by Department of Agricultural Economics. P:M: (FIM 220) R: Open only to juniors or seniors SA: ML 439, MTA 439, MSC 439  
Principles and techniques of business analysis and strategic planning applied to food firms. Food trend forecasts, market potential, competition and cost analyses, business and strategic planning.
- 442 Logistics and Transportation Management**  
Fall, Spring, Summer. 3(3-0) P:M: (MSC 305 and MSC 317) R: Open only to juniors or seniors in The Eli Broad College of Business. SA: ML 442, MTA 442  
Microanalysis of logistics and transportation services. Customer service, distribution operations, purchasing, order processing, facility design and operations, carrier selection, transportation costing and negotiation.
- 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 401 or concurrently and MSC 402 or concurrently and MSC 442 or concurrently) 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.
- 472 Topics in Operations Management**  
Spring of odd years. 3(3-0) P:M: (MSC 402) R: Open only to juniors or seniors in the Supply Chain Management major. SA: ML 404, MSC 404, MTA 404, MGT 404  
Managerial aspects of current issues such as total quality, computer integrated manufacturing and simultaneous engineering.
- 473 Topics in Logistics and Transportation Management**  
Spring. 3(3-0) P:M: (MSC 442) R: Open only to juniors or seniors in the Supply Chain Management major.  
Current topics in logistics and transportation planning, information technology, response based strategies, third party logistics and relationship 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. 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.

## Marketing and Supply Chain Management—MSC

- 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.
- 802 Procurement and Sourcing Strategies**  
Fall, Spring. 3(3-0) RB: (MSC 800) R: Open only to MBA students. SA: ML 802, MTA 802  
Sourcing strategies and applications. Negotiation planning and execution.
- 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 in Technology Environments**  
Fall. 3(3-0) P:M: (MBA 820) R: Open only to MBA students in the Marketing Technology Concentration. SA: ML 806, MTA 806  
Analysis of data gathered for strategic and tactical marketing decisions. Marketing engineering in strategic and decision support environments. Market and decision modeling techniques using spreadsheet templates. Integrated single source market and scanner data. Significant case work.
- 807 Marketing Information Technology -- Customer-Driven Strategies**  
Fall. 4(4-0) P:M: (MBA 820) R: Approval of department. SA: ML 807, MTA 807  
Customer-driven marketing strategies. Market orientation, voice of customer, organizational buying processes, sales management, customer satisfaction measurement, marketing in information technology environments, and flexible marketing channel redesign strategies. Case studies involving the use of multimedia, www, www2, and virtual communities. Development of web-based strategies for business-to-business marketers and integration of customer logistical support.
- 808 Entrepreneurial Marketing**  
Fall. 3(3-0) RB: (MBA 820 or MSC 805) SA: ML 808, MTA 808  
Entrepreneurial processes of creating markets. Creative approaches for designing competitor-oriented strategies 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 management for technology firms. Creating new product ideas, designing high technology products, managing cross-functional teams, developing and implementing marketing plans, interpreting marketing data, forecasting sales, assessing competitive dynamics and rivalry, and coping with uncertain environmental forces.
- 811 Marketing Strategy in Technology Environments**  
Spring. 2(2-0) P:M: (MSC 806 and MSC 807) R: Open only to MBA students in the Marketing Technology Concentration. SA: ML 811, MTA 811  
Competitive technology development strategy, marketing analysis, and marketing planning. Simulating marketing and product decisions in a globally competitive environment. Development and execution of marketing strategy and plans for a high technology firm.
- 813 Marketing Research Methods**  
Spring. 3(3-0) RB: (MBA 820 or MSC 805) SA: ML 813, MTA 813  
Collection, analysis, and interpretation of primary data from problem definition to report writing.
- 821 Practical Supply Chain Analysis**  
Spring. 1(1-0) RB: (MBA 820 or concurrently) R: Open only to MBA students in the Supply Chain Management major.  
Practical considerations and issues required to perform supply chain management analysis and operations. Supply chain management terminology and concepts.
- 824 Channel and Logistics Management**  
Spring. 3(3-0) RB: (MBA 820 or MSC 805) SA: ML 824, MTA 824  
Interfirm relationships in domestic and international settings. Interorganizational behavior, channel management, channel leadership and negotiations, relationship management, and strategic alliances.
- 828 Marketing Programming**  
Spring. 3(3-0) RB: (MBA 820 or MSC 805)  
Use of computer-based cases, simulations, and exercises to solve marketing problems and to develop marketing strategies and tactics. High-tech approaches to marketing programs.
- 831 Food Marketing Management**  
Spring. 3(3-0) Interdepartmental with Agricultural Economics. RB: (MBA 820 or MSC 805) SA: ML 831, MTA 831  
Marketing management decisions in food firms. Consumer orientation, computer technologies, food system cost reduction, global opportunities, environmental and social issues.
- 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.
- 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 Strategies**  
Fall. 3(3-0) P:M: (MBA 821) R: Open only to students in the MBA program.  
Developing and implementing procurement strategy. Procurement and commodity strategy, insourcing and outsourcing, supplier evaluation and selection, supplier management and development, global sourcing, cost and price analysis, negotiation, contract management, and procurement in product and process design.
- 853 Manufacturing Strategy**  
Spring. 3(3-0) P:M: (MBA 821) R: Open only to students in the MBA program.  
Developing and implementing operations strategy. Capacity planning and management, manufacturing process choice, process flow and mapping, value-mapping, and just-in-time tools and techniques. Recent developments such as synchronized flow management, Kaizen events, and advanced performance measurement and evaluation.
- 854 Integrated Logistics**  
Fall. 3(3-0) P:M: (MBA 821) R: Open only to students in the MBA program.  
Logistics as a value-adding process that synchronizes demand and supply. Supply chain strategy, segmental positioning, and facility network design. Development and maintenance of service provider relationships. Forecasting and collaborative planning, order management, transportation, inventory analysis, warehousing, and materials handling. Integrated performance measurement.
- 855 Supply Chain Management Technology and Applications**  
Spring. 3(3-0) P:M: (MBA 821) 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 Management of Technology and Innovation**  
Spring. 3(3-0) RB: Business or Engineering  
Integration of marketing assessment with technological feasibility studies in the development of innovative products and processes. Interfaces marketing students, engineering students, and faculty researchers on managing the research, design, and development processes leading to the commercialization of new technologies.
- 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.
- 862 Developing Global Markets**  
Spring. 3(3-0) RB: (MBA 820 or MSC 805)  
SA: ML 862, MTA 862  
Development of 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 Logistics and Supply Chain Management**  
Summer. 3(3-0) R: Open only to students in the Master of Science in Logistics.  
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 user.
- 871 Applied Data Analysis**  
Summer. 2 to 3 credits. R: Open only to students in the Master of Science in Logistics and the Master of Science in Manufacturing and Innovation.  
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. 3(3-0) P:M: (MSC 870) RB:  
Introductory coursework in finance, accounting, management, and economics. R: Open only to students in the Master of Science in Logistics.  
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.
- 873 Procurement and Manufacturing Management**  
Summer. 3(3-0) P:M: (MSC 870) R: Open only to students in the Master of Science in Logistics.  
Strategic issues in procurement and supply management. Purchasing role in fulfilling the firm's operations and competitive strategies. Theory and practice for planning and controlling manufacturing operations.
- 874 Total Quality Management**  
Summer. 2(2-0) R: Open only to students in the Master of Science in Manufacturing and Innovation.  
Total quality management principles, practices, and techniques. Implementation of quality improvement programs. Relationship to manufacturing and competitive strategies.
- 875 Manufacturing Planning and Control**  
Summer. 2(2-0) R: Open only to students in the Master of Science in Logistics and the Master of Science in Manufacturing and Innovation.  
Planning and control functions required to match supply and demand in a manufacturing firm. Tools and methods for planning production and the resources/capacity needed to support production. The role of information and information systems in planning and control. Coordination of plans across organizations in the supply chain.
- 876 Logistics Operations Methods and Systems**  
Summer. 3(3-0) P:M: (MSC 872) R: Open only to students in the Master of Science in Logistics.  
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 Logistics Information Technology**  
Summer. 3(3-0) P:M: (MSC 872) R: Open only to students in the Master of Science in Logistics.  
Role of information technology in logistics and supply chain management, planning and operations. Requirements, capabilities, and considerations for using information technology applications in logistics.
- 878 Logistics Systems Analysis**  
Summer. 3(3-0) P:M: (MSC 876 and MSC 877) R: Open only to students in the Master of Science in Logistics.  
Process of solving logistics problems. Applications of analysis tools and techniques to identify benefits and costs of logistics change.
- 879 Supply Chain Logistics: Strategy and Applications**  
Summer. 3(3-0) P:M: (MSC 876 and MSC 877 and MSC 878 or concurrently) R: Open only to students in the Master of Science in Logistics.  
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 Logistics**  
Fall. 3(3-0) P:M: (MSC 872 and MSC 876) R: Open only to students in the Master of Science in Logistics.  
Requirements for global operations and strategy development. Similarities and differences of international and domestic operations.
- 882 Logistics Field Study**  
Fall. 6 credits. P:M: (MSC 879) RB:  
Completion of 24 credits of Master of Science in Logistics program. R: Open only to students in the Master of Science in Logistics.  
Practical application of course material to a problem or situation in the student's organization.
- 883 Technology and Product Innovation Management**  
Fall. 2(2-0) R: Open only to students in the Master of Science in Manufacturing and Innovation.  
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 only to students in the Master of Science in Manufacturing and Innovation.  
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 and Supply Chain Management**  
Summer. 2(2-0) R: Open only to students in the Master of Science in Manufacturing and Innovation.  
Fundamentals of strategic sourcing and supply chain management. Integration and coordination of product innovation, sourcing, manufacturing, distribution, and logistics for global competitiveness.

## Marketing and Supply Chain Management—MSC

- 887 Technology and Innovation Implementation**  
Summer. 3(3-0) R: Open only to students in the Master of Science in Manufacturing and Innovation.  
Marketing assessment and technological feasibility in the development of innovative products and processes by an individual developer. Functional interfaces. Value engineering in the design and procurement process. Focus on commercialization of an actual technological innovation.
- 888 Capstone Project in Manufacturing**  
Fall, Spring, Summer. 3(1-6)  
Interdepartmental with Engineering. R: Open only to seniors in the Manufacturing Engineering major or to students in the Business Management of Manufacturing 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.
- 892 Environmentally Conscious Manufacturing**  
Summer. 2(2-0) R: Open only to students in the Master of Science in Manufacturing and Innovation.  
Environmental issues in the manufacturing environment. Economic and strategic motivations for environmental consciousness. Tools, procedures, and recent developments.
- 893 Manufacturing Strategy**  
Summer. 3(3-0) R: Open only to students in the Master of Science in Manufacturing and Innovation.  
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.
- 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.
- 908 Marketing Decision Models**  
Fall. 3(3-0) R: Open only to Ph.D. students.  
SA: ML 908, MTA 908  
Applications of marketing decision models in new product development, pricing, distribution, advertising, and sales promotion.
- 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.