Program. interviewing, training, development, appraisal, communication, employee perceptions, and decision making. Topics include multiple linear regression, model specification, decision analysis, and decision making.

855. Labor and Industrial Relations
Spring. R: Open only to Ph.D. students.
Industrial relations in American union and management collective bargaining, compensation issues, grievance concepts, and arbitration. Dispute resolution.

856. Applied Strategic Management
Spring. R: Open only to students in the Advanced Management Program.
Development and application of analytical models to support decision making. Topics include multiple linear regression, model specification, decision analysis, and decision making.

865. Labor and Management Relations
Spring. R: Open only to students in the Advanced Management Program.
Industrial relations in American union and management collective bargaining, compensation issues, grievance concepts, and arbitration. Dispute resolution.

868. Applied Strategic Management
Spring. R: Open only to students in the Advanced Management Program.
Development and application of analytical models to support decision making. Topics include multiple linear regression, model specification, decision analysis, and decision making.

870. Strategic Management
Fall, Spring. 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.

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. 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-numbered years. 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, and group dynamics.

908. Seminar in Organizational Theory
Fall of odd-numbered years. 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-numbered years. 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-numbered years. R: Open only to Ph.D. students.
Review of recent research literature. Topics include developments in strategic thinking, identification of strategic groups, strategy formulation, implementation, and decision making.

912. Special Topics Research Seminar
Spring of even-numbered years. P: MGT 906. R: Open only to Ph.D. students.
Research in timely and specialized topics in organizational behavior, organization theory, human resource management, organizational policy, and strategy.

918. Procurement and Sourcing Theory
Fall of even-numbered years. R: Open only to Ph.D. students.
Theoretical models explaining procurement and sourcing strategies. Frameworks to guide research.

919. Procurement and Sourcing Management Strategy
Spring of odd-numbered years. P: MGT 918. R: Open only to Ph.D. students.
Management issues affecting the contribution of procurement and sourcing strategies to the competitiveness of the firm.

920. Seminar in Manufacturing Strategy
Fall of even-numbered years. P: MGT 801, MGT 803. R: Open only to Ph.D. students.
Research in manufacturing strategy. Quality, flexibility, innovation, and decision making. Frameworks to guide research.

921. Seminar in Inventory Management
Fall of odd-numbered years. P: MGT 801, MGT 805. R: Open only to Ph.D. students in Business.
Classical, just-in-time, and multi-echelon inventory control models. Forecasting.

922. Seminar in Production Planning and Scheduling
Spring of even-numbered years. P: MGT 801, MGT 803, MGT 834. R: Open only to Ph.D. students in Business.
Aggregate and disaggregate planning, master scheduling, material requirements planning, lot sizing, short-term capacity planning, and scheduling.

923. Topics in Operations Management
Spring of odd-numbered years. P: MGT 801, MGT 805. R: Open only to Ph.D. students in Business.
Current research in the field. Topics vary.

999. Doctoral Dissertation Research
Fall, Spring, Summer. 1 to 24 credits. A student must earn a maximum of 99 credits in all enrollments for this course. R: Open only to Ph.D. students in Management.
335. Food Marketing Management
Spring, 3(3-0) Interdepartmental with Food Systems Economics and Management.
P: FSM 200 or ML 300. R: Open only to juniors and seniors.
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.

345. Logistics Management
Spring, 3(3-0) Interdepartmental with Management.
P: MGT 305, R: Open only to juniors and seniors.
Activities and decisions necessary to plan, implement, and control private and public physical distribution systems (processors, wholesalers, retailers).
Marketing Distribution and merchandising systems in domestic and international contexts.

351. Retail Management
Fall, Spring, Summer, 3(3-0)
P: ML 300. R: Open only to juniors and seniors.
Domestic and international retailing structure, environment, and development. Managerial strategy. Location, 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) Interdepartmental with Management Administered by Management.
P: MGT 304, ML 345. R: Open only to juniors and seniors in Materials and Logistics Management.
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) Interdepartmental with Management. Administered by Management.
P: MGT 304, ML 345. R: Open only to juniors and seniors in Materials and Logistics Management.
Production planning, demand management, master scheduling, materials requirements, and capacity planning. Shop floor control, computer-integrated manufacturing, and just-in-time systems.

403. Topics in Purchasing and Sourcing Management
Fall of even-numbered years, 3(3-0) Interdepartmental with Management. Administered by Management.
P: MGT 304, ML 345. R: Open only to juniors and seniors in Materials and Logistics Management.
Current topics in sourcing and negotiation strategy such as price and cost analysis, and purchasing research techniques.

404. Topics in Operations Management
Spring of odd-numbered years, 3(3-0) Interdepartmental with Management. Administered by Management.
P: MGT 304, ML 345. R: Open only to juniors and seniors in Materials and Logistics Management.
Managerial aspects of current issues such as total quality, computer integrated manufacturing and simultaneous engineering.

413. Personal Selling and Sales Management
Fall, 3(3-0)
P: ML 302. R: Open only to juniors and seniors.
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. Diversity and ethical issues.

415. International Marketing Management
Fall, Spring, 3(3-0)
P: ML 300, ML 310, R: Open only to juniors and seniors.
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.

439. Food Business Analysis and Strategic Planning
Fall, 3(3-0) Interdepartmental with Food Systems Economics and Management.
P: ML 335 or FSM 335; STT 201 or STT 200 or STT 315. R: Open only to juniors and seniors.
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. Traffic and Transportation Management
Fall, 3(3-0) Interdepartmental with Management.
P: MGT 304, ML 345. R: Open only to juniors and seniors.
Analysis of purchasing and operating transportation services including carrier selection, pricing and rates, and negotiation. Managing the transportation function including consolidation, fleet management, and transport strategies. International and intermodal distribution.

444. Physical Distribution Operations
Spring, 3(3-0) Interdepartmental with Management.
P: MGT 304, ML 345. R: Open only to juniors and seniors.

460. Marketing Strategy (W)
Fall, Spring, Summer, 3(3-0)
P: ML 302, ML 318, and one other ML course. R: Open only to seniors in the College of Business. Completion of Tier I writing requirement. Identification and analysis of managerial marketing issues. Integration of marketing concepts and theories through case analysis. Ethical and international applications.

470. Materials and Logistics Policy (W)
Fall, Spring, 3(3-0) Interdepartmental with Management.
P: MGT 304, ML 345, one additional course in materials and logistics management. R: Open only to juniors and seniors in College of Business and in programs for which ML 470 is a catalog-listed requirement. Completion of Tier I writing requirement. Case studies of strategic and tactical decisions in materials and logistics management. Identification and definition of problems, evaluation of integrated alternatives and development of recommendations.

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.
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 Honors College juniors and seniors.
Supervised program of independent library or field research designed to supplement classroom study.

491. Topics in Marketing
Fall, Spring, 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course.
P: ML 300. R: Open only to juniors and seniors.
Current issues in specialized marketing, logistics knowledge of marketing, and environmental analysis. Strategy development for control.

800. Materials and Logistics Management
Fall, Spring, 3(3-0) Interdepartmental with Management Administered by Management.
R: Open only to graduate students in Business.
Fundamentals of materials and logistics management. Strategic impact of the transportation 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) Interdepartmental with Management. Administered by Management.
P: MGT 800. R: Open only to graduate students in Business.
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) Interdepartmental with Management. Administered by Management.
P: MGT 800. R: Open only to graduate students in Business.
Sourcing strategies and applications. Negotiation planning and execution.

803. Operations Management Strategy
Fall, 3(3-0) Interdepartmental with Management. Administered by Management.
P: MGT 801. R: Open only to graduate students in Business.
Operations management issues including quality, technology, group technology, computer integrated manufacturing, and just-in-time manufacturing.

805. Marketing Management
Fall, Spring, 3(3-0) R: Open only to graduate students in Business or students in programs for which ML 805 is a catalog-listed requirement.
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. Decision Support Systems for Marketing
Fall, Spring, 3(3-0)
P: ML 805. R: Open only to graduate students in Business.
Analytical marketing decision-making using existing data bases. Expert system development and application in marketing management.

807. Customer-Driven Strategies
Fall, Spring, 3(3-0)
P: ML 806. R: Open only to graduate students in Business.
Marketing strategies based on the analysis of consumer and organizational buyers. Strategy development designed to meet or exceed customers' expectations.

808. Market-Driven Strategies
Fall, Spring, 3(3-0)
P: ML 806. R: Open only to graduate students in Business.
Marketing strategies based on the analysis of competitors. Alternative approaches to competitive strategies.
809. **Logistics and Transportation Strategy**  
Fall, Spring. 3(3-0) Interdepartmental with Management.  
P: MGT 806. R: Open only to graduate students in College of Business.  
Planning, control and measurement for logistics and transportation systems. Customer service, transportation, inventory, order processing, warehousing and material handling.

810. **Product Innovation and Management**  
Fall. 3(3-0)  
P: ML 805 or approval of department. R: Open only to graduate students in the College of Business and College of Engineering.  
Analytic, decision-making, and planning tools. Topics include new product policy and development, organizational issues, and product modification and deletion.

811. **Marketing Communication**  
Spring. 3(3-0)  
P: ML 865. R: Open only to graduate students in Business.  
Marketing communication programs for consumer, industrial, and service firms. Communication mix objectives, positioning, budgeting, media, trade promotion, and brand name strategies. Regulation and ethical issues.

812. **Logistics Research and Analysis**  
Fall. 3(3-0) Interdepartmental with Management.  
P: ML 809. R: Open only to graduate students in College of Business.  
Research methodology in the design and analysis of transportation and distribution systems. System design, customer service, and policy studies.

813. **Marketing Research Methods**  
Spring. 3(3-0)  
P: ML 806. R: Open only to students in Business.  
Collection, analysis, and interpretation of primary data from problem definition to report writing.

814. **Transportation Policy and Plans**  
Spring. 3(3-0) Interdepartmental with Management.  
P: ML 806. R: Open only to graduate students in College of Business.  
Policy models and managerial perspectives on future national and corporate transportation policies. Interaction of government, carrier management, and user logistics and distribution strategies.

815. **Strategic Planning**  
Fall. 2(2-0).  
R: Open only to students in the Advanced Management Program.  

816. **Marketing Management**  
Spring. 3(3-0).  
P: ML 818. R: Open only to students in the Advanced Management Program.  
Analysis, coordination, and execution of marketing programs. Segmentation, marketing mix, market response modeling, and ethics.

817. **Operations Management**  
Spring. 3(3-0) Interdepartmental with Management. R: Open only to students in the Advanced Management Program.  
Strategic issues in manufacturing operations, purchasing, and distribution. Impact of business systems on productivity and profits. Competitive strategies in an international economy.

818. **Marketing Channel Management**  
Spring. 3(3-0)  
P: ML 808. R: Open only to graduate students in Business.  
Design, selection, and performance measurement of channel structures in domestic and international settings.

819. **Food Marketing Management**  
Fall. 3(3-0) Interdepartmental with Agricultural Economics.  
P: ML 808 or approval of department. R: Open only to graduate students in Business or approval of department.  
Marketing management decisions in food firms. Consumer orientation, computer technologies, food system cost reduction, global opportunities, environmental and social issues.

820. **Materials and Logistics Policy**  
Fall, Spring. 3(3-0) Interdepartmental with Management.  
P: ML 801, MGT 809. R: Open only to graduate students in College of Business.  
Case study of strategy, policy, and planning. Customer satisfaction, quality, organization, information use, and strategic alliance issues.

821. **Business Communication I**  
Fall, Spring. 2(1-2).  
R: Open only to MBA students.  
Analysis of planning and execution of business communications. Development of oral and written communication skills.

822. **Business Communication II**  
Fall, Spring. 1(1-0).  
P: ML 801. R: Open only to MBA students.  
Integrating and applying written and oral business communication skills with other courses in the MBA program.

823. **International Business**  
Fall, Spring. 3(3-0).  
R: Open only to graduate students in Business.  
Management of the firm in the multinational environment. Assessment of international modes of operations, markets, financial strategies, services, and resources. Competitive strategy.

824. **International Marketing**  
Spring. 3(3-0).  
P: ML 806, ML 808. R: Open only to graduate students in Business.  
Marketing decisions, strategies, performance and operations of the international firm. Attention to multinational enterprises, exporters, service marketers, and contractors.

825. **Emerging Topics in Business**  
Spring. 3(3-0).  
R: Open only to second-year MBA students.  
Perspectives on new and emerging issues of business administration. Topics vary.

826. **Seminar in Marketing and Logistics**  
Fall, Spring. 3(3-0).  
R: Open only to graduate students in College of Business.  
A student may earn a maximum of 6 credits in all enrollments for this course.  
P: ML 805. R: Open only to graduate students in College of Business.  
Intensive reading and research on a marketing topic of mutual interest to a faculty member and a Ph.D. student.

827. **Theory Development and Research Design in Marketing**  
Fall, Spring. 3(3-0).  
R: Open only to approval of department.  
Research concepts and scientific methods for the study of marketing. Formulation of hypotheses, concepts of measurement, and quantitative methods.

828. **Quantitative Methods in Marketing**  
Spring. 3(3-0).  
P: ML 905 or approval of department.  
Concepts and methods in the scientific investigation of marketing phenomena. Focus on the use of multivariate analytic tools.

829. **Causal Modeling in Marketing**  
Fall, Spring. 3(3-0).  
P: ML 906. R: Open only to Ph.D. students in the College of Business.  
Statistical models in marketing, emphasis on causal modeling.

830. **Marketing Decision Models**  
Fall. 3(3-0).  
P: ML 941. Applications of marketing decision models in new product development, pricing, distribution, advertising, and sales promotion.

831. **History of Marketing Thought**  
Fall. 3(3-0).  
P: ML 805. R: Open only to Ph.D. students in Business.  
Evolution of marketing institutions, techniques, theories, and critiques. Influence of changing environmental and technological factors.

832. **Theories of Competition in Marketing**  
Spring. 3(3-0).  
P: ML 920. R: Open only to Ph.D. students in Business.  
Relationships among competition, marketing, and corporate and economic growth. Competition phenomena studied through a variety of disciplines, including marketing, economics, political science, sociology and social psychology.

833. **Seminar in Social Sciences in Marketing**  
Spring. 3(3-0).  
P: ML 906 or concurrently. R: Open only to Ph.D. students in Business.  
Social science perspectives on marketing.

834. **Seminar in Spatial and Temporal Marketing**  
Spring. 3(3-0).  
P: ML 920. R: Open only to Ph.D. students in College of Business.  
Theory concerning marketing strategies and programs in logistics, channels, and pricing. Field research needed.

835. **Special Topics Seminar**  
Fall, Spring. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course.  
P: Open only to Ph.D. students in College of Business.  
Intensive reading and research on a marketing topic of mutual interest to a faculty member and a Ph.D. student.

836. **Theory of Transportation-Distribution Systems**  
Fall of odd-numbered years. 3(3-0).  
P: ML 805. R: Open only to Ph.D. students in the College of Business.  
Transportation-distribution research on systems integration. Elements of networks, systems, and economic theory in the design, evaluation, and control of logistics systems. Topics include strategic logistics, forecasting, and system integration models.