986. Organizational Behavior and Human Resource Management
Spring, 3(-0) R: Open only to students in the Advanced Management Program.
Management of human resources. Organizational culture, motivation, communications, employee perceptions, individual and organizational learning. Staffing, interviewing, training, development, appraisal, terminating, and legal issues.

985. Entrepreneurship: New Business Planning and Initiation
Fall, 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.

983. Entrepreneurship: Managing Business Growth and Development
Spring, 3(-0) R: Open only to students in the Graduate School of Management or with departmental permission. Evolution of a firm from an entrepreneurial business to a mature organization. Topics include entrepreneurial leadership, family ownership, management succession, and managing growth.

985. Labor and Management Relations
Spring, 2(-0) Interdepartmental with Labor and Industrial Relations. 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.

989. 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.

990. Seminar in Organizational Research Methods
Spring, 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.

991. Seminar in Organizational Behavior
Fall of even years. 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.

992. Seminar in Organizational Theory
Fall of odd years. 3(-0) P: 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.

993. Seminar in Human Resource Management
Spring of odd years. 3(-0) R: Open only to Ph.D. students. Classic and current empirical research. Job analysis, personnel selection, training, and incentive systems.

994. Seminar in Strategic Management
Fall of even years. 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.

995. 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.

MARTKETING AND SUPPLY CHAIN MANAGEMENT

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(-0) R: Not open to juniors or seniors in the College of Business. Role of business in society. Activities and functions of business organizations. Major issues and challenges facing business: globalization, social responsibility, diversity. Contemporary management practices.
SA: ML 101

300. Managerial Marketing
Fall, Spring, Summer. 3(-0) R: Open only to juniors or seniors. Analysis of 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.
SA: ML 300, MTA 300

302. Consumer and Organizational Buyer Behavior
Fall, Spring, Summer. 3(-0) P: (MSC 300) R: Open only to juniors or seniors. Application of consumer behavior principles to customer satisfaction, market planning, and marketing mix decisions. Ethical, diversity, and international issues.
SA: ML 302, MTA 302

303. Introduction to Supply Chain Management
Fall, Spring, Summer. 3(-0) R: Open only to juniors or seniors. 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.
SA: MGT 203, ML 303, MTA 303

305. Supply Chain Management
Fall, Spring. 4(-4) P: (MSC 303) R: Open only to juniors or seniors. 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(-0) R: Open only to juniors or seniors. International and cross-cultural study of business decisions, enterprises, markets, and institutions. Globalization of industries and firm competitiveness. International business transactions and entry strategies.
SA: ML 310, MTA 310

313. Personal Selling and Buying Processes
Fall, Spring. 3(-0) The nature of channel relationships. Buying behavior and sales processes. Applications to differing industries and kinds of channel relationships.
SA: ML 313

317. Quantitative Business Research Methods
Fall, Spring, Summer. 3(-1) Interdepartmental with Statistics and Probability. P: (STT 315) R: Open only to juniors or seniors. 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.
SA: ML 317, MTA 317

319. Marketing Research
Fall, Spring. 3(-0) P: (MSC 300 and MSC 317 or concurrently) R: Open only to juniors or seniors. Research methods designed to obtain information for marketing decisions. Research design, data collection, and interpretation of information to provide a customer orientation.
SA: ML 319, MTA 319

335. Food Marketing Management
Spring. 3(-0) Interdepartmental with Food Systems Economics and Management. P: (FSM 200 or MSC 300) R: Open only to juniors or 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.
SA: ML 335, MTA 335
351. Retail Management  
Fall, Spring, Summer. 3(3-0) P: (MSC 300) R: Open only to juniors or 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.  
SA: ML 351, MTA 351

401. Procurement and Supply Management  
Fall, Spring, Summer. 3(3-0) P: (MSC 305 and MSC 317) R: Open only to juniors or seniors.  
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.  
SA: MGT 401, ML 401, MTA 401

402. Manufacturing Planning and Control  
Fall, Spring, Summer. 3(3-0) P: (MSC 305 and MSC 317) R: Open only to juniors or seniors.  
Production planning, demand management, master scheduling, materials requirements, and capacity planning. Shop floor control, computer-integrated manufacturing, and just-in-time systems.  
SA: MGT 402, ML 402, MTA 402

410. Product Innovation and Management  
Fall. 3(3-0) R: Open only to juniors or seniors.  
Analytic, decision-making, and planning concepts and tools available to product managers. New product policy and development, organizational issues, and product modification and deletion.  
SA: ML 410

413. Sales Management  
Fall, Spring, 3(3-0) P: (MSC 300 and MSC 317 or concurrently) R: Open only to juniors or 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; discussion of diversity and ethical issues.  
SA: ML 413, MTA 413

415. International Marketing Management  
Fall, Spring, 3(3-0) P: (MSC 300) and (MSC 310 or EC 340) R: Open only to juniors or 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.  
SA: ML 415, MTA 415

420. New Product Design and Development  
Spring. 3(3-0) R: Open only to seniors.  
Practical training and experiences in design and testing of new products.

439. Food Business Analysis and Strategic Planning  
Fall, 3(3-0) Interdepartmental with Food Systems Economics and Management. P: (MSC 335 or FSM 335) and (STT 201 or STT 200 or STT 315) R: Open only to juniors or 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.  
SA: ML 439, MTA 439

442. Logistics and Transportation Management  
Fall, Spring, Summer. 3(3-0) P: (MSC 305 and MSC 317) R: Open only to juniors or seniors.  
Microanalysis of logistics and transportation services. Customer service, distribution operations, purchasing, order processing, facility design and operations, carrier selection, transportation costing and negotiation.  
SA: ML 442, MTA 442

460. Marketing Strategy (W)  
Fall, Spring, Summer. 3(3-0) P: (MSC 302 and MSC 317 and MSC 319) and completion of Tier I writing requirement. R: Open only to seniors in the College of Business.  
Identification and analysis of managerial marketing issues. Integration of marketing concepts and theories through case analysis. Ethical and international applications.  
SA: ML 460, MTA 460

470. Supply Chain Application and Policy (W)  
Fall, Spring. 2(2-0) P: (MSC 305) and completion of Tier I writing requirement. R: Open only to seniors in the College of Business.  
Analysis and problem solving of supply chain management cases. Purchasing, manufacturing, logistics, and transportation as an integrated supply chain.  
SA: ML 470, MTA 470

471. Topics in Purchasing and Sourcing Management  
Spring. 2(2-0) P: (MSC 401) R: Open only to juniors or seniors in the Supply Chain Management major.  
Current topics in sourcing and negotiation strategy such as price and cost analysis, and purchasing research techniques.  
SA: ML 402, MSC 402, MTA 403

472. Topics in Operations Management  
Spring. odd years. 3(3-0) P: (MSC 402) R: Open only to juniors or seniors in the Supply Chain Management major.  
Managerial aspects of current issues such as total quality, computer integrated manufacturing and simultaneous engineering.  
SA: ML 404, MSC 404, MTA 404, MGT 404

473. Topics in Logistics and Transportation Management  
Spring. 3(3-0) P: (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.  
Supervised program of independent library or field research designed to supplement classroom study.  
SA: ML 490, MTA 490

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.  
Supervised program of independent library or field research designed to supplement classroom study.  
SA: ML 490H, MTA 490H

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. R: Open only to juniors or seniors in the College of Business.  
Current topics in marketing, logistics and 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.  
SA: ML 491, MTA 491

800. Materials and Logistics Management  
Spring. 3(3-0)  
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.  
SA: ML 800, MTA 800, MGT 800

801. Materials Management: Tactical and Strategic Perspectives  
Fall, Spring. 3(3-0) P: MSC 800.  
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.  
SA: ML 801, MTA 801, MGT 801

802. Procurement and Sourcing Strategies  
Fall, Spring. 3(3-0) P: MSC 800. R: Open only to MBA students.  
Sourcing strategies and applications. Negotiation planning and execution.  
SA: ML 802, MTA 802, MGT 802

803. Operations Management Strategy  
Spring. 3(3-0) P: MSC 801.  
Operations management issues including quality, technology, group technology, computer integrated manufacturing, and just-in-time manufacturing.  
SA: ML 803, MTA 803, MGT 803
805. Marketing Management
Fall. 3(3-0)
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.
SA: ML 805, MTA 805

806. Marketing Analysis
Fall. 3(3-0) P: MBA 820 or MSC 805
Marketing research projects, data collection and analysis, syndicated data, marketing decision support systems, sales forecasting, and scanner data analysis systems.
SA: ML 806, MTA 806

807. Customer-Driven Strategies
Spring. 3(3-0) P: MBA 820 or MSC 805.
Customer satisfaction, customer loyalty, and related topics from the fields of consumer behavior and customer service.
SA: ML 807, MTA 807

808. Entrepreneurial Marketing
Fall. 3(3-0) P: MBA 820 or MSC 805
SA: ML 808, MTA 808

810. Product Innovation and Management
Spring. 3(3-0) P: MBA 820 or MSC 805.
SA: ML 810, MTA 810

811. Marketing Communication
Fall. 3(3-0) P: MBA 820 or MSC 805.
Communication with target markets using advertising, sales promotion, public relations, sales management approaches, and brand name development.
SA: ML 811, MTA 811

813. Marketing Research Methods
Spring. 3(3-0) P: MBA 820 or MSC 805.
Collection, analysis, and interpretation of primary data from problem definition to report writing.
SA: ML 813, MTA 813

818. Strategic Planning
Spring. 2(2-0) R: Open only to students in the Advanced Management Program.
SA: ML 818, MTA 818

820. Value Chain Management
Spring. 5(5-0) R: Open only to students in the Advanced Management Program.
Integration of marketing, procurement, operations management, and logistics processes. Strategies of creating value across the supply chain given customer needs, wants, motivations, and behaviors within global competitive environments.

821. Practical Supply Chain Analysis
Spring. 1(1-0) P: 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) P: MBA 820 or MSC 805.
Interfirm relationships in domestic and international settings. Interorganizational behavior, channel management, channel leadership and negotiations, relationship management, and strategic alliances.
SA: ML 824, MTA 824

828. Marketing Programming
Spring. 3(3-0) P: 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. P: MBA 820 or MSC 805
Marketing management decisions in food firms. Consumer orientation, computer technologies, food system cost reduction, global opportunities, environmental and social issues.
SA: ML 831, MTA 831

832. New Technology and Products Management
Fall. 2(2-0) R: Open only to students in the Advanced Management Program.

833. Decision Support Models
Fall. 3(3-0)
Analytical models to support decision making. Topics include multiple regression, linear optimization, decisions under uncertainty, and forecasting.
SA: MGT 833

834. Optimization Models I
Fall of odd years. 3(3-0)
SA: MGT 834

836. Management in the Global Marketplace
Summer. 4(1-6) R: Open only to students in the Advanced Management Program.
SA: MGT 836

837. Introduction to Computer Simulation
Fall of even years. 3(3-0) P: STT 442.
Discrete computer simulation and its use in research and planning. Simulation approaches and computer simulation languages. Design and interpretation of simulation experiments. Internal mechanics of simulation programs.
SA: MGT 837

838. Design and Analysis of Statistical Experiments
Spring of odd years. 3(3-0) P: STT 442.
Basic experimental design. Non-parametric and multivariate methods. Elementary sampling theory. Response surface methodology. Data analysis using statistical packages such as BMD and SPSS.
SA: MGT 838

842. Total Quality Management
Fall. 3(3-0) P: 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) P: MSC 801, MSC 833. C: MIC 810 concurrently
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.

844. Supply Chain Process
Fall. 5(5-0) P: MBA 820 or MSC 890.
Processes central to supply chain management. Managing and measuring integrated purchasing, manufacturing operations, and logistics.

845. Supply Chain Activities
Spring. 6(6-0) P: MSC 844.
Activities central to supply chain management. Tools, procedures, and metrics for purchasing, manufacturing operations, and logistics.

846. Seminar in Supply Chain Management
Spring. 1(1-0) P: MSC 844.
Use of case studies to develop strategic and operational insight into integrated supply chain management.

847. Managerial Decision Support Models
Fall. 3(3-0) R: Open only to students in the Advanced Management Program.
Development and application of analytical models to support decision making. Topics include data analysis and multiple regression, linear optimization, decisions under uncertainty, forecasting, risk and decision analysis.
SA: MGT 847
Emerging Firms
Course Descriptions—Marketing and Supply Chain Management

856. Consulting Practicum For Emerging Firms
Fall, Spring: 3(3-6) R: Approval of department.
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(4-6) 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) R: 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)
Management of the firm in the multinational environment. Assessment of international modes of operations, markets, financial strategies, services, and resources. Competitive strategy.
SA: ML 860, MTA 860

862. Developing Global Markets
Spring: 3(3-0) R: MBA 820 or MSC 805.
SA: ML 862, MTA 862

865. Emerging Topics in Business
Spring: 3(3-0) R: MBA 820 or MSC 805.
Perspectives on new and emerging issues of business administration. Topics vary.
SA: ML 865, MTA 865

888. Capstone Project in Manufacturing
Spring: 3 credits. Interdepartmental with Engineering. Administered by Engineering. R: Open only to juniors or 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. Team building and communication skills are emphasized.
SA: ML 890, MTA 890

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.
Faculty-supervised independent study.
SA: ML 890, MTA 890

905. Theory Development and Research Design in Marketing
Fall: 3(3-0) R: Open only to Ph.D. students.
Research concepts and scientific methods for the study of marketing. Formulation of hypotheses, concepts of measurement, and quantitative methods.
SA: ML 905, MTA 905

906. Quantitative Methods in Marketing
Spring: 3(3-0) R: Open only to Ph.D. students.
Concepts and methods in the scientific investigation of marketing phenomena. Focus on the use of multivariate analytic tools.
SA: ML 906

907. Causal Modeling in Marketing
Fall: 3(3-0) R: Open only to Ph.D. students.
Statistical methods in marketing, emphasis on causal modeling.
SA: ML 907, MTA 907

908. Marketing Decision Models
Fall: 3(3-0) R: Open only to Ph.D. students.
Applications of marketing decision models in new product development, pricing, distribution, advertising, and sales promotion.
SA: ML 908, MTA 908

910. History of Marketing Thought
Fall: 3(3-0) R: Open only to Ph.D. students.
Influence of changing environmental and technological factors.
SA: ML 920, MSC 920, MTA 920

911. Theories of Competition in Marketing
Spring: 3(3-0) R: Open only to Ph.D. students.
Relations 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.
SA: ML 921, MSC 921, MTA 921

912. Seminar in Social Sciences in Marketing
Spring: 3(3-0) R: Open only to Ph.D. students.
Social science perspectives on marketing.
SA: ML 922, MSC 922, MTA 922

913. Seminar in Spatial and Temporal Marketing
Spring: 3(3-0) R: Open only to Ph.D. students.
Theory concerning marketing strategies and programs in logistics, channels, and pricing. Field research needed.
SA: ML 923, MSC 923, MTA 923

915. Procurement and Sourcing Theory
Fall of even years. 3(3-0) R: Open only to Ph.D. students.
Theoretical models explaining procurement and sourcing strategy. Frameworks to guide research.
SA: MGT 915

919. Procurement and Sourcing Management Strategy
Spring of odd years. 3(3-0) R: Open only to Ph.D. students.
Management issues affecting the contribution of procurement and sourcing strategies to the competitiveness of the firm.
SA: MGT 919

920. Seminar in Manufacturing Strategy
Fall of even years. 3(3-0) 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: Open only to Ph.D. students.
Classical, just-in-time, and multi-echelon inventory control models. Forecasting.
SA: ML 921, MTA 921, MGT 921

923. Topics in Operations Management
Spring of odd years. 3(3-0) R: Open only to Ph.D. students.
Current research in the field. Topics vary.
SA: ML 923, MTA 923, MGT 923

930. Theory of Transportation-Distribution Systems
Fall of odd years. 3(3-0) R: Open only to Ph.D. students.
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.
SA: ML 930, MTA 930

931. Transportation and Distribution Research Methods
Spring of odd years. 3(3-0) R: Open only to Ph.D. students.
Techniques and methodology of system design, customer service and policy formulation.
SA: ML 931, MTA 931

932. Transportation and Distribution Development Policy
Fall of even years. 3(3-0) R: Open only to Ph.D. students.
The interaction of government, carrier, and user logistics and distribution strategies, particularly at the macro-corporate and national policy levels.
SA: ML 932, MTA 932

940. International Business Theory
Fall of even years. 3(3-0) R: Open only to Ph.D. students.
Theories explaining international business phenomena. Varying perspectives on international business activities, concepts, and frameworks.
SA: ML 940, MTA 940
The Eli Broad Graduate School of Management

800. The Global Organization and the Firm's Strategic Position
Fall, Spring, 3(3-0) R: Open only to MBA students.
Organizational goals, design, and control of the global business enterprise. Strategies for implementing new organizational forms. Defining the value chain, competitive positioning, and sustainable competitive advantage.

801. Accounting and Financial Strategies
Fall, Spring, 5(5-0) R: Open only to MBA students.
Financial accounting model, valuation, and reporting concepts and uses. Time value of money, interest rates, valuing securities, financial statement analysis, and cash flows. Budgeting, decision analyses, cost estimation and accumulation, capital budgeting, and international financial concepts.

802. Applied Data Analysis for Managers
Fall, Spring, 2(2-0) P: STT 315. R: Open only to MBA students. Not open to students with credit in MSC 833. Analysis of business and economic data to support managerial decision-making. Building, interpreting, and applying regression models. Time series and forecasting. Offered half of semester.

806. Business Ethics and Critical Thinking Concepts
Fall, Spring, 1(1-0) R: Open only to MBA students.
Creating a critical thinking approach to business problem solving. Developing a framework for identifying, analyzing, and resolving ethical dilemmas in business. Offered half of semester.

814. Applied Economics
Fall, Spring, 2(2-0) R: Open only to MBA students.
The economic view of the firm. Modeling market mechanics in supply and demand, marginal concepts, elasticity, market characteristics, pricing with market power, and strategic behavior. Applications to business problems and situations. Principal-agent relationships and wealth maximization. Offered half of semester.

816. Business Presentations
Fall, Spring, 1(1-1) R: Open only to MBA students.
Development of effective interpersonal communications skills. Emphasis is on oral communications in business settings.

820. Managing the Firm's Value Chain
Spring, Summer, 5(5-0) P: MBA 808. R: Open only to MBA students.
Integration of product innovations, marketing strategies, supply chain strategies, and regulatory environment. Global marketing strategies and consumer behaviors. Coordination of purchasing, manufacturing, operations, and logistics to enhance competitiveness.

822. Financial Management
Spring, Summer, 2(2-0) P: MBA 802. R: Open only to MBA students.
Investment decisions by firms. Value creation, risk and return, pricing models, and financial markets. Financing alternatives, market efficiency, capital budgeting, and leverage and risk relationships. Optimizing firm value. Agency problems and effects on investment and financing decisions. Offered half of semester.

824. Managing the Workforce
Spring, Summer, 2(2-0) R: Open only to MBA students.
Role of workforce management in carrying out the goals and mission of the organization. Theories and applications of management principles to acquiring, motivating, and rewarding employees and structuring their work. Legal, domestic, and international issues in the workplace.

826. International, Comparative, and Cross-Cultural Business
Spring, Summer, 2(2-0) R: Open only to MBA students.
Defining international businesses’ approaches to global markets, economic trade issues, methods of entry, and organizational alternatives. Cross-cultural differences and their impacts on business practices. Trade agreements, strategic alliances, negotiations, and cultural consequences. Offered half of semester.

840. Applied Business Experience
Fall, Summer, 3(0-9) R: Open only to MBA students.
Student teams work on projects in organizations identified by a company sponsor and approved by a faculty adviser.

941. International Business Research Issues
Spring of odd years, 3(3-0) P: MSC 940. R: Open only to Ph.D. students. Scientific methods of research on international business. Topics include cultural bias and organizing multi-country studies.
SA: ML 941, MTA 941

990. 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.
Intensive reading and research on a marketing topic of mutual interest to a faculty member and a Ph.D. student.
SA: ML 924, MTA 924

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.
Production of research paper under the direction of a senior faculty member.
SA: ML 995, MTA 995

Materials Science and Mechanics—Descriptions of Courses

MATERIALS SCIENCE AND MECHANICS
MSM

Department of Materials Science and Mechanics
College of Engineering

160. Engineering Communications
Fall, Spring, 3(3-0) P: (MTH 116 or concurrently) or (LBS 117 or concurrently) or (MTH 132) or (MTH 103 and MTH 104)
Computer-aided design and drafting. Freehand sketching. Two and three dimensional visualization. Preparation of spread sheets and technical reports.

205. Statics
Fall, Spring, 3(3-0) P: (MTH 132 or LBS 118)
Vector description of forces and moments. Two and three dimensional equilibrium of particles and rigid bodies. Analysis of trusses, frames and machines. Coulomb friction.

211. Mechanics of Deformable Solids
Fall, Spring, 3(3-0) P: (MSC 205) and (MTH 133 or concurrently or LBS 119 or concurrently)

250. Materials Science and Engineering
Fall, Spring, 3(3-0) P: (CEM 141 or CEM 151 or LBS 165)
Structure of metals, ceramics and polymers. Phase diagrams, thermomechanical treatments, physical and mechanical properties, diffusion, microstructure studies, environmental effects.

306. Dynamics
Fall, Spring, 3(3-0) P: (MSC 205) and (MTH 235 or LBS 220) R: Open only to students in the College of Engineering.