491. Senior Seminar I
Fall, Winter, Spring. 3(3-0) Seniors or approval of department.
Selected interdisciplinary problems concerned with the interface between science and society or science and man are identified and formulated. A bibliography is generated and an outline for a thesis prepared.

492. Senior Seminar II
Fall, Winter, Spring. 3(3-0) 491. The thesis planned in 491 is written and evaluated.

495. Independent Study
Fall, Winter, Spring. Summer. 1 to 12 credits. May re-register for a maximum of 12 credits. Juniors.

MANAGEMENT MGT
College of Business

101. Introduction to Business
Fall, Winter, Spring. 4(4-0) University Core students or approval of department. Functions performed by business and the role of administration in our economy as a whole and in the operation of a specific business. Four major objectives: to aid students in choosing a vocation, to help Business majors select a field of concentration, to show the place of specialized techniques presented in more advanced business courses, and to give some familiarity with common business practices and terminology.

300. Production Management

302. Organization and Administration
Fall, Winter, Spring, Summer. 4(4-0) Junior Business majors; EC 301 and AFA 201. Analysis of the internal organization structure and of executive roles and functions in the business, corporate and other political and civil institutions. Examines administrative and managerial concepts in the context of behavioral research. Business cases and outside research reports are used for specific analyses.

305. Materials and Purchasing Management
Fall, Winter. 4(4-0) 302 or MTA 300 or Juniors; non-majors.
Planning, organizing and controlling materials; acquisition in industrial enterprises, institutions, and government. Management of purchasing, materials movement, storage and control. Value analysis, purchasing research, vendor relations and purchase forecasting.

306. Analysis of Processes and Systems
Fall, Winter. Spring. 4(4-0) CPS 110, STT 318. Analysis of some fundamental systems and process concepts which are basic to industrial management. The course is oriented toward computer model building, acquainting the student with the use of the computer as an instrument for analysis of complex problems in industry. Course includes consideration of criteria for efficiency and optimization, and program planning.

310. Fundamentals of Personnel Administration
Fall, Winter, Spring, Summer. 4(4-0) Juniors. Organization, function, and policy administration of employee relations activities in the business enterprise; consideration of new techniques of employment, training, wage payment, morale-building, and employee security.

400H. Honors Work
Winter. 1 to 15 credits. Approval of department. Investigates models, concepts and research findings of particular significance to effective decision-making in organization, administration and management.

401. Planning and Control of Production
Winter. 4(4-0) 300, 306; Seniors. Production planning, inventory control, machine loading, scheduling, expediting and critical path scheduling.

402. Product Reliability and Quality Control
Spring. 4(4-0) MTA 316. Methods of achieving satisfactory standards of product quality and reliability at minimum cost.

405. Manufacturing Policy
Spring. 4(4-0) 300, 302; Seniors. Policy formulation in production management. Coordinating staff functions and integrating production with other activities in the firm.

409. Business Policy
Fall, Winter, Spring, Summer. 4(4-0) Seniors in business administration and 302; AFA 391; MTA 300. Problems, methods, and analytical frameworks for building and maintaining consistent and effective policy frameworks in the business enterprise. Written and oral analyses are made of comprehensive cases cutting across the major functions within business organizations. Team and individual reports are required.

411. Personnel Selection and Development
Winter. 4(4-0) 310; MTA 317. Manpower input problems of business organizations — manpower planning, recruitment, selection, placement, training and development at all levels. Focus is on policy issues, research findings, and advanced techniques.

412. Compensation and Motivation
Spring. 4(4-0) 310. Manpower motivation and compensation problems in business organizations — performance appraisal, job evaluation, wage and salary administration, non-financial incentives and the impact of job content and job context factors on performance.

413. Health, Safety and Employee Benefits
Fall, Winter. 4(4-0) Juniors: 302 for majors. Manpower maintenance problems in business organizations — organization and operation of safety and health programs, practices and trends in employee benefits plans. Focus is on issues and relevant research and techniques.

414. Human Relations in Business
Fall, Winter. 4(4-0) 302; approval of department. Human problems in business administration: examination of the empirical research dealing with organizational and administrative problems in business, including scale, motivation, authority, power, centralization, commitment, and mobility.

415. Managerial Approaches to Collective Bargaining
Winter, Spring. 4(4-0) 302 or junior non-business majors. Union-management problems and manipulational strategies and tactics in collective bargaining — the union challenge, legal constraints, negotiations and operating under the contract, dimensions of cooperation and conflict.

468. Field Studies
Fall, Winter, Spring. Variable credit. May re-enroll for a maximum of 8 credits. Business administration majors and approval of department. Financial programs of observation, study, and work in selected business firms. Designed to supplement classroom study in such a way as to make maximum contribution to students' total educational experience. Field work may be arranged in finance, insurance, marketing, personnel management, production management, purchasing, real estate, retailing, transportation and banking.

499. Senior Seminar
Spring. 4(4-0) Senior majors; approval of department. Directed reading and student research in contemporary management problems.

501. Work Design and Administration
Fall. 4(4-0) Design, improvement, and problems in the administration of work systems with emphasis on repetitive operations. Criteria for evaluating systems. Tools for developing, analyzing, and improving procedures. Cases and projects.

502. Materials Management
Spring. 4(4-0) Advanced study of the policies, practices and problems relating to the procurement and control of materials in business organizations.

503. Seminar in Industrial Relations
Fall, Winter, Spring, Summer. 4(4-0) Core course description, see interdisciplinary courses.

506. Organization and Administration
Fall, Winter, Spring. 4(4-0) 820. Dynamics of organization: the organization seen as an open system interacting with a rapidly changing environment, as a structure of organized human cooperation, as a means of managerial strategy, current theory and research applied to organizational process and design.

507. Administrative Policy
Fall, Winter, Spring. 4(4-0) 853; MTA 804; AFA 889; plus 30 credits in the MBA core program. Application of administrative theory and technologies to business situations through cases cutting across major functions within business organization. Cases viewed from standpoint of general management and consideration of social and physical environmental forces surrounding the firm.

508. Seminar in Management, Organization, and Administration
Fall, Winter, Spring. 4(4-0) May re-enroll for a maximum of 12 credits. Philosophy, practice, research, and current problems in management, organization, and administration. Historical and current literature, lectures, discussion, individual research, cases and plant visits are methods of study used in various terms.
HISTORY OF MANAGEMENT THOUGHT. Fall. Development of management concepts as evidenced in the writings of major contributors. Environment factors and relation of early ideas to current thought.

CONTEMPORARY ISSUES IN ADMINISTRATION. Spring. Recent and current developments in the administration of business enterprises. Examination of theory and practice.

ORGANIZATION THEORY. Winter, Summer. Critical and comparative consideration of organization theory with special reference to industrial organizations and problems of organizational structure and administrative practice in the management of business concerns are analyzed in the light of objectives, environment, and current theories.

810. Personnel Management Fall, Winter, Summer. 4(4-0) 806. Principles and methods of recruiting, selecting, training, evaluating, motivating, and rewarding personnel. fringe benefits, retirement, absenteeism, and other employee benefit problems.

811. Advanced Problems in Personnel Management Spring, Summer. 4(4-0) May enroll for a maximum of 8 credits. 810. Advanced studies in selected administrative and technical policies and practices in employee relations, with individual and group project work and research.

813. Human Relations in Management Fall, Spring. 4(4-0) 830 or approval of department. The executive role: Theories and techniques of leadership, communications, conflict management, morale, motivation, authority, power, examined by means of cases, role playing, laboratory exercises, and study of behavioral science research findings.

815. Linear Programming in Management Fall, Spring. 4(4-0) MTA 802. Theory, formulation and application of the general linear, transportation and integer programming models.

816. Simulation of Production Systems Winter, Summer. 4(4-0) MTA 802. Use of digital computer for management decisions. Development of skills in computer programming and use of simulation models to study behavior and design of systems.

818. Supervisory and Executive Development Fall, Spring. 4(4-0) 806 or 808. Theory and research of developmental stages of executive careers. Special emphasis on: impact of organization on executive potentiality; forces influencing development of executive skills and abilities; study of autochthonous of executive role performance, role of training programs.

820. Quality and Reliability Fall of odd numbered years. 4(4-0) MTA 802. Specification of reliability and quality criteria; methods of evaluation and control; special emphasis on cost minimization models.

821. Production Control Winter. 4(4-0) 801. Planning and control of production operations. Inventory management, production and work force smoothing, job shop scheduling and project scheduling.

822. Manufacturing Strategy and Policy Spring. 4(4-0) Approval of department. Major production operations and policy decisions in the total business strategy of the firm. Viewpoint of top administrator responsible for production.

830. Fundamentals of Management Fall, Winter. 4(4-0) Open only to selected MBA candidates. The managerial process: planning, organization, measurement, and control of work and work flow. Recruitment, motivation, development, and assessment of organizational manpower. Management theory and practice illuminated by managerial and behavioral science research.

831. Computers and Systems Analysis for Business Fall, Summer. 4(4-0) 832 or concurrently; MTH 111 and STT 121 or concurrently or 12 credits of college mathematics. Open only to selected MBA candidates. Computer programming and systems analysis in business administration.

832. Statistical Methods for Business Fall, Summer. 4(4-0) 831 or concurrently; MTH 111 and STT 121 or concurrently or 12 credits of college mathematics. Open only to selected MBA candidates. Statistics for analysis and research in business.

833. Decision Making Models Fall, Winter, Spring. 4(4-0) 831, 832, APA 840 or concurrently. Normative decision analysis in business under different assumptions of information availability.

860. Corporation Management and Society Spring. 4(4-0) 806. Analysis of the emerging character of administrative structure of the large corporation. Administrative autocracy, corporate government, stockholder and director relationships. Examination of ethics of decision-making, strategic values and priorities basic to resource allocation decisions.

880. Organization and Control in the Political Economy: Institutions and Theory Winter, 4(4-0) Interdepartmental with and administered by the Economics Department. Organization and technique in choice and implementation of economic, especially planning and programming, functions of political authority.

881. Organization and Control in the Political Economy: Selected Problems Spring. 4(4-0) Approval of instructor. Interdepartmental with the Department of Economics. Analysis of role and tasks, appropriate techniques and organizational structures of political agencies in planning and management of complex programs.

890. Special Problems Fall, Winter, Spring, Summer. Variable credit. Approval of department.

900. Behavioral Research: Organization Winter. 3 credits. MTA 905. Concepts and methods of behavioral science research that are applicable to the study of organization as a strategic device in the development of tangible and intangible values and in the control of elements of business enterprise.

907. Behavioral Research: Business Executive Spring. 3 credits. 906. Concepts and methods of behavioral science research in the study of the agents of enterprise decision-making and action. Attention is focused on the way in which decisions are made in business organizations and the multiple influences operating on the executive. Modes of adjustment to the decision environment are examined.

908. Seminar in Organization Theory Winter. 4(4-0) 806; doctoral candidates, master's candidates with approval of department. Directed reading and research on issues in contemporary organization theory.


911. Seminar in Personnel Research Spring. 4(4-0) 810; doctoral candidates, master's candidates with approval of department. Directed reading and research on issues in contemporary personnel administration theory and practice.

999. Research Fall, Winter, Spring, Summer. Variable credit. Approval of department.

MARKETING AND TRANSPORTATION ADMINISTRATION MTA

College of Business

300. Consumption and Marketing Organization Fall, Winter, Spring, Summer. 4(2-2) EC 200. Adjustment of the firm to its market environment with emphasis on competitive strategy. Assessment of market forces and opportunities with reference to social, political, economic and technological forces affecting distribution methods and institutions. Structural organization of marketing system-functions involved in effective market performance. Small group problems involving analysis of costs and efficiency.

301. Management of Marketing Effort Fall, Winter, Spring. 4(2-2) 300. Market management in relation to total enterprise. Problems, analytical tools and approaches to decisions concerning allocation of funds to various means of market cultivation. Development of promotional strategy, price policy and management of field selling effort. Particular attention to role of marketing research, forecasting, budgeting, organization arrangements and control techniques. Use of cases in small groups.

311. Principles of Selling Fall, Winter, Spring. 3(2-1) Nature of personal selling and its requirements. Functional relationships of selling in marketing mix. Buyer motivations and selling theories, with application to various buyer-seller situations.