

**Descriptions — Marketing and Transportation Administration
of
Courses**

**MARKETING AND
TRANSPORTATION
ADMINISTRATION MTA**

**College of Business and Graduate
School of Business
Administration**

292. Selected Topics

Fall, Winter, Spring, 3(3-0) or 4(4-0)
May reenroll for a maximum of 8 credits when a
different topic is taken.

Selected subject matter of current interest in
marketing; social, institutional, and manage-
rial, etc., topics. Subject varies by terms.

**300. Marketing Management in
Business and Society I**

Fall, Winter, Spring, Summer, 4(4-0)
EC 200, AFA 201 or AFA 330.

Firm and consumer roles in the exchange system
for goods and services. Competitive analysis of
market structures and marketing management.
Fitting product-service offerings to various cus-
tomer group needs.

**301. Marketing Management in
Business and Society II**

Fall, Winter, Spring, Summer, 4(4-0)
Juniors, MTA 300.

Development of distribution, communication and
pricing policies. Integration of product, dis-
tribution, communication and price policies into
a marketing plan. Emphasis on financial aspects
of marketing and impact on society.

**303. Materials and Logistics
Management**

(MGT 300.) Fall, Winter, Spring,
Summer, 4(4-0) Juniors in the College of Busi-
ness or approval of department. Interdepart-
mental with and administered by the
Department of Management.

Management concepts and techniques for
purchasing, operations and distribution pro-
cesses. Productivity and profit contributions.
Planning, analysis and control of purchasing,
production and transportation-distribution.

304. Operations Planning and Control

(MGT 301.) Winter, Spring, 4(4-0)
MGT 303 or approval of department. Interde-
partmental with and administered by the De-
partment of Management.

Managing the production system. Product de-
velopment, process selection, facilities location
and layout; staffing; materials, cost and quality
control.

305. Purchasing Management

Fall, Winter, Spring, 4(4-0) MGT 303
or approval of department. Interdepartmental
with and administered by the Department of
Management.

Planning, organizing and controlling the
purchasing function within organizations.
Purchasing responsibilities, objectives and poli-
cies. Source selection and evaluation. Price, cost
and value analysis. Negotiation. Managing pur-
chase inventories.

311. Personal Selling

Fall, Winter, Spring, Summer, 3(3-0)
MTA 300.

Theories, principles, methods and techniques of
personal selling with application to different
buyer-seller situations. Development of inter-
personal communication skill. Career opportu-
nities in selling.

313. Sales Management

Fall, Winter, Spring, Summer, 4(4-0)
MTA 300.

Organization and administration of the firm's
personal selling. Topics include: recruitment, se-
lection, training, compensation, evaluation, de-
velopment, and motivation of the sales force;
market assessment, territory alignment, and
quotas; segmental analysis and budgeting.

**317. Quantitative Business Research
Methods**

Fall, Winter, Spring, Summer, 4(5-0)
STT 315. Interdepartmental with the Depart-
ment of Statistics and Probability.

Application of statistical techniques to business
decision making. Topics covered include appli-
cations of linear regression and correlation,
analysis of variance, selected non-parametric
tests, time series, and index numbers.

320. Consumer and Buyer Behavior

Fall, Spring, Summer, 4(4-0) MTA
300.

Consumer buyer behavior characteristics, theo-
ries and research methods for marketing and stra-
tegies and problem solving. Emphasis on
predicting and understanding purchase behav-
ior for best firm/buyer needs match.

**335. Food Processing and Distribution
Management**

Winter, 3(3-0) MTA 300 or FSM 200.
Interdepartmental with Food Systems Econom-
ics and Management.

Analysis of problems faced in the food process-
ing and distribution system. Includes functional in-
terrelationships, consumer orientation and fu-
ture development.

**341. Transportation Distribution
Systems**

Fall, Winter, Summer, 4(4-0) MGT
303 or approval of department. Interdepart-
mental with the Department of Management.

Application of economic and business princi-
ples to transportation and distribution systems.
Functional analysis of all major transport
modes. Identification of major issues, analysis of
alternatives and discussion of probable future
outcomes.

342. Traffic Management

Winter, Spring, Summer, 4(4-0) MGT
303 or approval of department. Interdepart-
mental with the Department of Management.

Basic practices related to purchasing and operat-
ing transportation services for private and public
enterprises.

351. Retail Management

Fall, Winter, Spring, Summer, 4(4-0)
MTA 300, AFA 201 or concurrently.

Management methods, locational analysis, store
organization, personnel planning, merchandis-
ing, buying and pricing techniques and cus-
tomer service policies for retail firms. Survey of
retailing and its role in distribution.

400H. Honors Work

Fall, Winter, Spring, 1 to 15 credits.
Approval of department.

Investigates models, concepts and research find-
ings of particular significance to effective deci-
sion making in administration of marketing and
transportation systems.

**403. Research and Negotiation for
Purchasing Materials and
Management**

Fall, Winter, Spring, 4(4-0) MGT 305
or approval of department. Interdepartmental
with and administered by the Department of
Management.

Applied research and planning focusing on the
purchasing and materials management func-
tions in organizations. Preparation for and con-
ducting purchase negotiations. Field research
studies. Administration of the research and plan-
ning effort.

405. Operations Management Topics

Fall, Winter, Spring, 4(4-0) MGT 304
or approval of department. Interdepartmental
with and administered by the Department of
Management.

Consideration of current and controversial ques-
tions in operations management. Field experi-
ence to study operations and policies in business.
Industry studies; impact of new technology and
government regulations.

407. Materials and Logistics Policy

Winter, Spring, 4(4-0) MGT 303 plus
12 credits in MLM Program. Interdepartmental
with the Department of Management.

Analysis of comprehensive cases incorporating
topical coverage of the entire materials and lo-
gistics management program.

409. Field Studies in Business

Fall, Winter, Spring, Summer, 1 to 4
credits. May reenroll for a maximum of 8 credits.
Majors and approval of department.

Planned program of independent research or ob-
servation, study, and work in selected business
firms. Designed to supplement classroom study
in such a way as to make maximum contribution
to student's total educational experience.

414. Marketing Research

Fall, Winter, Spring, Summer, 5(5-0)
MTA 301, MTA 317.

Research process as an aid to decision making in
marketing managements. Specific attention to
the planning of research and gathering analysis
and interpretation of data.

415. International Market Systems

Fall, Winter, 4(4-0) MTA 300.

Development of criteria for evaluating foreign
markets. Design of international organization
and marketing systems. Study of major methods,
modes, and strategies of international trade and
operations. Applications through reports and
case decisions.

**418. Marketing Development and
Policies**

Fall, Winter, Spring, Summer, 4(4-0)
MTA 301, MTA 414 and at least 3 additional
credits of MTA electives.

Study and integration of major tasks and deci-
sions involved in developing and marketing
products. Comprehensive discussion of cases in-
volving different decisions for a variety of prod-
ucts.

**439. Advanced Food Processing and
Distribution Management**

Fall, 3(3-0) MTA 335. Interdepart-
mental with Food Systems Economics and Man-
agement.

Managerial principles and techniques applied to
food processing and distribution. Emphasizes
adjustment to changing social, economic and in-
ternal company environment. Student interac-
tion with industry, labor and government
representatives. Field trips, special projects.

- 445. Physical Distribution Management**
Fall, Winter, Spring, 4(4-0) MGT 303 or approval of department. Interdepartmental with the Department of Management.
Micro analysis of private and public physical distribution systems. Emphasis on component parts of the movement system; analytical tools used in planning, implementing and controlling the system.
- 452. Retail Policies and Problems**
Spring, 4(4-0) MTA 351.
Analysis of retail problems with examination of selected current major problem areas. Critical review of budgetary and other controls, standards and techniques used to achieve management objectives.
- 800. Materials and Logistics Management**
Fall, Winter, Spring, Summer, 4(4-0) Graduate students. Interdepartmental with and administered by the Department of Management.
Management concepts of and frameworks for acquisition, conversion and distribution processes. Impact on business and social systems, productivity and profits. Emphasis on planning, analysis and control of purchasing, production and physical distribution.
- 801. Operations Management**
Winter, 4(4-0) MGT 800 or approval of department. Interdepartmental with and administered by the Department of Management.
Managing the production system. Strategies of product and process selection. Design of production facilities: location, layout and capacity. Organizing and staffing operations and work measurement. Controlling quality and costs.
- 802. Research Analysis for Marketing Decisions**
Fall, Spring, 4(4-0)
Use of research techniques as an aid in marketing decision making. Research process involving research problem definition, hypothesis formulation, data collection, interpretation and presentation. Class projects may be used.
- 803. Purchasing Administration**
Winter, Spring, 4(4-0) MGT 800. Interdepartmental with and administered by the Department of Management.
Purchasing objectives, responsibilities, policies and organization. Source selection, evaluation and development. Negotiations. Purchase planning and evaluation.
- 804. Marketing Concepts and Processes**
Fall, Winter, 4(4-0)
The business is considered relative to its external environment. Institutions comprising the marketing system, the principal environmental opportunities and constraints facing the marketing manager, and the major marketing informational, control and coordination devices available to the firm will be studied.
- 805. Marketing: Models, Theories and Strategies**
Fall, Winter, Spring, Summer, 4(4-0) MTA 804.
Analysis of marketing functions, programming marketing effort, and control and coordination are considered within the context of industrial and consumer demand. Strategic and decision-making aspects of marketing are stressed.
- 808. Emerging Issues in the Business Environment**
Winter, Spring, 4(4-0) May reenroll for a maximum of 12 credits if course content changes. Thirty credits of MBA core program, or approval of department.
Selected significant current organization, social, political, economic and cultural issues are examined in relation to business policy and decision making. Discussions, readings and research reports. Topics selected may vary from term to term.
- 809. Transportation Distribution Strategies**
Fall, Winter, 4(4-0) MGT 800. Interdepartmental with the Department of Management.
Planning and control of the enterprise's transportation and physical distribution system. Emphasis on detailed examination of component parts of the movement storage system.
- 811. Seminar in Marketing**
Fall, Winter, Spring, Summer, 1 to 5 credits. May reenroll for a maximum of 15 credits.
- 812. Systems Design Modeling**
Spring, 4(4-0) MGT 800. Interdepartmental with the Department of Management.
Research procedure and planning models for design of the firm's logistical system. Emphasis on situational analysis, research methodology, data analysis, analytical techniques and implementation.
- 815. Business and Material Forecasting**
(MGT 802.) Fall, 4(4-0) MGT 800 or approval of department. Interdepartmental with and administered by the Department of Management.
Causes and consequences of supply dynamics. Analyses and forecasts of national and international materials and purchasing business trends. Influences of material resource problems on policies, strategies and behaviors.
- 816. Transportation Policy and Plans**
Fall, Winter, 4(4-0) MGT 800. Interdepartmental with the Department of Management.
An operational model and theoretical perspective on national policies that are apt to shape the future of the transportation system. Interaction of government, carrier, and user logistics and distribution strategies.
- 821. Production and Inventory Planning and Control**
Winter, Spring, 4(4-0) MGT 800 or approval of department. Interdepartmental with and administered by the Department of Management.
Theory and practice of production and inventory planning and control. Focus on computer based planning systems for material requirements including aggregate planning, master scheduling, capacity planning, shop floor control and inventory planning.
- 823. Seminar in Retailing**
Winter, 4(4-0)
Critical analysis of available generalizations concerning the economic, social, and commercial role of retailing. Special attention to concepts of retail competition and productivity. Emphasis on research in improving retail efficiency.
- 824. Marketing Channel Management**
Spring, 4(4-0) MTA 805.
Seminar in selected organizational, social, political, economic and cultural issues related to management in marketing channels.
- 831. Food Marketing Management**
Fall, Spring, 4(4-0) May reenroll for a maximum of 8 credits. Interdepartmental with the Department of Agricultural Economics.
Food industry adjustment to changing social, economic and internal company environment. Managerial principles and techniques applied to food processing and distribution. Student interaction with industry, labor and government representatives.
- 841. Materials and Logistics Management Policy**
Spring, Summer, 4(4-0) MGT 800 plus 30 credits in the MBA Program. Interdepartmental with the Department of Management.
Case course that integrates the materials and logistics management program. Emphasis on problem recognition, applying course materials and preparation of plans that improve total systems performance.
- 851. Market Behavior and Competitive Strategy**
Fall, Winter, Summer, 4(4-0) MTA 805.
Industrial and consumer market structure and behavior and their impact upon the firm's competitive operations and actions.
- 853. Market Programming**
Winter, Spring, Summer, 4(4-0) MTA 805.
Planning processes leading to programming the various elements of market cultivation. Major emphasis is given to the development of a total marketing strategy for the firm. Case analysis.
- 854. Problem-Solving Processes in Marketing**
Fall, Spring, 4(4-0) MTA 853.
The problem-solving process is approached through the investigation and solution of current marketing problems by research teams.
- 855. Market Cost-Revenue Analysis**
Winter, 4(4-0) One course in accounting and one in marketing. Interdepartmental with the Department of Finance and Insurance.
Analytical tools for use in planning and controlling marketing activities. Emphasis on the determination of factors causing marketing cost differences and the assignment of costs to those factors. Application of tools to determination of expenditure-revenue patterns and market potentials.
- 860. International Business**
Fall, Summer, 4(4-0) MTA 805.
The economic environment within which the international firm operates is presented. Special emphasis on relating trade and payments theory, regional analysis, and economic development to strategy formulation of the firm. Marketing, financial, and organizational factors are considered.
- 862. International Marketing**
Winter, 4(4-0) MTA 860.
Models for headquarters planning and control of international marketing operations are developed. Social, cultural, institutional, and economic variables are considered in studying marketing operations in foreign environments.

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863. Problems in International Business
Spring. 4(4-0) MTA 862.

Examination of strategies and organization for international business. In-depth consideration of headquarters and overseas personnel, marketing, financial, and legal issues.

890. Special Problems
Fall, Winter, Spring, Summer. 1 to 4 credits. May reenroll for a maximum of 8 credits. Approval of department.

905. Analysis of Business Enterprise Systems
Fall. 3 credits. MTA 805; MGT 806.

Research concepts and scientific methods for the study of business enterprise systems. The design of research, formulation of hypotheses, concepts of measurements and use of quantitative methods in the study of business systems.

909. Theory of Transportation-Distribution Systems
Fall. 4(4-0)

Examines the functions of transportation-distribution systems. Develops the relevant elements of networks, systems, and economic theory with empirical design. Applications to the design evaluation, and control of representative macro and micro systems.

910A. Advanced Research in Marketing I
Winter. 4(4-0) Second-year doctoral students in marketing.

Advanced concepts and quantitative methods in the scientific investigation of market phenomena and the tools of market cultivation.

910B. Advanced Research in Marketing II
Spring. 5(5-0) MTA 910A.
Continuation of MTA 910A.

911A. History of Market Thought
Fall. 4(4-0) May reenroll for a maximum of 15 credits. MTA 851.

Traces the evolution of marketing institutions, techniques, theories and criticisms. The influence of changing environmental and technological factors on marketing practice and thought. Readings in retrospective and original materials, discussion and research paper.

911B. Seminar in Macro Marketing
Winter. 4(4-0) May reenroll for a maximum of 15 credits. MTA 911A.

Examines the relationships between competition, marketing and corporate and economic growth. Emphasis is given to a functional examination of competition and the central role of innovation in the process.

912. Research Methodology in Transportation-Distribution Systems
Winter. 4(4-0) MTA 812, MTA 909.

Research methodology in the design and administration of transportation-distribution systems. Emphasis on technique and methodology for conducting system design studies and evaluation of common implementational problems.

941. Transportation-Distribution Development Policy
Spring. 4(4-0) MTA 909, MTA 912.

Applications in theory, principles, and processes developed in MTA 909 and MTA 912 to the design of research processes and reports in significant transport and distribution problems.

957. Seminar in Micro Marketing
Spring. 4(4-0) MTA 911A.

Examines the current state of theory concerning the planning and implementation of marketing strategies and programs, and tries to identify where future research is needed and/or will be most useful to marketing and business managers.

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

MATHEMATICS MTH

College of Natural Science

One and one-half years of high school algebra and one year of geometry and a satisfactory score on the placement test are prerequisites for all courses in the Department of Mathematics which carry credit.

0813. Elements of Algebra
Fall, Winter, Spring, Summer. 0(3-0) [3(3-0) See page A-1 item 3.] Current enrollment in MTH 1033.

Fractions, decimals, real number properties, algorithms of arithmetic, simple factoring, simplifying algebraic expressions, parentheses, reciprocals, linear equations, integer exponents, applied problems, coordinate systems, graphing, solving equations by graphing.
Approved through Summer 1986.

0823. Intermediate Algebra
Fall, Winter, Spring, Summer. 0(2-0) [2(2-0) See page A-1 item 3.] Current enrollment in MTH 1043, one year of high school algebra, satisfactory score on placement exam.

Properties of real numbers, polynomials, factoring, exponents, roots and radicals, first and second degree equations, linear inequalities, complex numbers, word problems, system of equations, operations on algebraic expressions, simplifying algebraic expressions.
Approved through Summer 1986.

1033. Elements of Algebra
Fall, Winter, Spring, Summer. 2(2-0) Current enrollment in MTH 0813.

Fractions, decimals, real number properties, algorithms of arithmetic, simple factoring, simplifying algebraic expressions, parentheses, reciprocals, linear equations, integer exponents, applied problems, coordinate systems, graphing, solving equations by graphing.
Approved through Summer 1986.

1043. Intermediate Algebra
Fall, Winter, Spring, Summer. 3(3-0) Current enrollment in MTH 0823, one year of high school algebra, satisfactory score on placement exam.

Properties of real numbers, polynomials, factoring, exponents, roots and radicals, first and second degree equations, linear inequalities, complex numbers, word problems, system of equations, operations on algebraic expressions, simplifying algebraic expressions.
Approved through Summer 1986.

108. College Algebra and Trigonometry I
Fall, Winter, Spring, Summer. 5(5-0) 1-1/2 high school units in algebra and satisfactory score on placement test, or MTH 0823; 1 high school unit in geometry. Not open to students with credit in MTH 111.

Number systems; variables; functions and relations; mathematical induction; exponents and radicals; elementary theory of equations; binomial theorem; determinants, matrices and systems of equations.

109. College Algebra and Trigonometry II
Fall, Winter, Spring, Summer. 5(5-0) MTH 108; not open to students with credit in MTH 111.

Continuation of MTH 108 plus trigonometry including definition of circular functions, angular measure, fundamental identities.

110. Finite Mathematics with Applications
Fall, Winter, Spring, Summer. 5(5-0) MTH 108 or MTH 111.

Elementary combinatorial analysis, binomial theorem, vectors and matrices, convex sets and linear programming, graph theory, applications to theory of games.

111. College Algebra with Trigonometry
Fall, Winter, Spring, Summer. 5(5-0) 1-1/2 years of high school algebra, 1 year of high school geometry, satisfactory score in algebra placement examination, trigonometry or MTH 102 or concurrently. Not open to students with credit in MTH 108 or MTH 109.

Sets and equations, simultaneous equations and matrices, vectors, inequalities, functions and relations, inverse functions, elementary theory of equations, trigonometric equations and identities, polar coordinates, parametric equations, straight line analytic geometry.

112. Calculus and Analytic Geometry I
Fall, Winter, Spring, Summer. 5(5-0) MTH 109 or MTH 111.

The sequence MTH 112, MTH 113, MTH 214, MTH 215, is an integrated course in calculus and analytic geometry, covering derivatives, curve sketching, definite and indefinite integrals, area volume, transcendental functions, vector analysis, solid geometry, partial differentiation, multiple integrals, infinite series, power series.

113. Calculus and Analytic Geometry II
Fall, Winter, Spring, Summer. 5(5-0) MTH 112.
A continuation of MTH 112.

122. Calculus I
Fall, Winter, Spring. 5(5-0) MTH 109 or MTH 111; not open to engineers, physical science or mathematics majors or to students with credit in MTH 112.

The first of a two-term course in primarily single variable calculus with and introduction to several variables for students who want only one or two terms of calculus.

123. Calculus II
Fall, Winter, Spring. 5(5-0) MTH 122, not open to engineers, physical science or mathematics majors or to students with credit in MTH 113.

The second of a two-term course in primarily single variable calculus with an introduction to several variables for students who want only one or two terms of calculus.