Marketing (MKT)

MKT 301 Principles of Marketing (3). Functions, organizations and methods involved in marketing agricultural and manufactured products; marketing problems; policies and trends. Prerequisites: BUS 151; ECON 222. (F, S)

MKT 322 Retailing and E-Commerce (3). Organization, management and operation of retail enterprises; problems associated with store location and layout, buying, receiving, inventorying and stock control, pricing and merchandising. Prerequisite: MKT 301. (S)

MKT 360 Professional Selling (3). Problems related to the field of personal selling. Prerequisites: MKT 301. (F)

MKT 362 Sales Management (3). Problems related to planning, direction and control of personal salesmanship including recruiting, selection, training, equipping, assigning, routing, supervising, paying and motivating as these tasks apply to the sales force. Prerequisite: MKT 301. (TBA)

MKT 419 Consumer Behavior (3). Examines and evaluates the decision-making process with reference to sociopsychological and economic factors. Explores both consumer and industrial buyer behavior. Prerequisites: MKT 301. (TBA)

MKT 425 Marketing Management (3). Integrates the full scope of marketing activities. Prerequisites: BUS 381; MKT 301. (S)

MKT 430 International Marketing (3). Management of the marketing function in the international and multinational context. Emphasis upon the impact of economic, political and cultural factors. Prerequisite: MKT 301. (TBA)

MKT 452 Integrated Marketing Communications (3). Planning, organizing, directing, and controlling the promotion mix. Creative strategy; budgets; media planning; promotion research; evaluation of communications efforts. Prerequisite: MKT 301. (TBA)

MKT 489 Internship (1–3). Minimum of eight weeks on-the-job experience related to the student's major. Daily journal and a written report relating the work experience to the student's education are required. Prerequisites: MKT 301; 3.00 cumulative GPA; instructor and department approval. (TBA)

MKT 491 Directed Study (1–3). Independent study. (May be repeated for a maximum of 4 hours.) Prerequisites: MKT 301; 3.00 cumulative GPA; instructor and department approval. (TBA)

MKT 493 Topics (3). As announced. (May be repeated for a maximum of 6 hours with consent of instructor.) Prerequisite: MKT 301. (TBA)

Mathematics (MATH)

Note: Some math courses require prerequisites that can be fulfilled with satisfactory ACT/SAT scores. These minimum scores may be satisfied in the following ways:

For courses with MATH 101 as a prerequisite, satisfactory scores are defined as

1. ACT math score of 19 or higher **OR**
2. SAT math score of 470 or higher.

For courses with MATH 107 as prerequisite, satisfactory scores are defined as

1. ACT math of 24 or higher **OR**
2. ACT math of 22 or 23 **AND** an algebra/geometry subscore of 9 **OR**
3. SAT math of 530 or higher.

For courses with MATH 119 as a prerequisite, satisfactory scores are defined as:

1. ACT math of 26 or higher **OR**
2. SAT math of 600 or higher.

MATH 101 Basic Algebra (4). Brief review of fractions, decimals and percents. Operations in algebra, first-degree equations and inequalities, rational expressions, exponents, polynomials, factoring. Credit not applicable to baccalaureate or associate degrees. (F, S)

MATH 107 Intermediate Algebra (3). Linear equations, inequalities, systems of equations, polynomials and factoring, quadratic equations, rational expressions, and graphing. Prerequisite: Satisfactory ACT/SAT score or MATH 101 with a grade of "C" or better. (F, S)

MATH 113 Mathematical Discovery (3). Appreciation for the beauty and extent of mathematics; logical reasoning and problem solving strategies. Topics chosen from: set theory, logic, algebra, geometry, recreational math, number theory, graph theory, matrix algebra. Prerequisite: Satisfactory ACT/SAT score or MATH 101 with a grade of "C" or better. (F, S)

MATH 114 Mathematics of Decision Making (3). Critical thinking in everyday life. Topics: Probability, counting techniques, expected value, fundamental ideas of statistics, the use and misuse of statistics encountered in everyday life. Prerequisite: Satisfactory ACT/SAT score or MATH 101 with a grade of "C" or better. (S)

MATH 119 College Algebra (3). Equations and inequalities, functions and their graphs, exponential and logarithmic functions, complex numbers, roots of polynomials, binomial theorem, sequences. Prerequisite: Satisfactory ACT/SAT score or MATH 107 with a grade of "C" or better. (F, S)

MATH 120 Plane Trigonometry (3). Trigonometric functions, logarithms, complex numbers. Prerequisite: Satisfactory ACT/SAT score or MATH 107 with a grade of "C" or better. (F, S)

MATH 124 Calculus I (4). Limits, derivatives, the mean value theorem, curve sketching, max-min problems, antiderivatives, the definite integral, the fundamental theorem of calculus, area, volume, work, average of a function. Prerequisites: MATH 119 and 120 with a grade of "C" or better or satisfactory ACT/SAT score. (F, S)

MATH 132 Calculus II (4). Inverse functions, exponential and logarithmic functions, inverse trig functions, l'Hospital's rule, techniques of integration, improper integrals, arc length, moments and centers of mass, sequences and series. Prerequisite: MATH 124. (F, S)

MATH 202 Calculus III (4). Parametric equations, polar coordinates, three-dimensional geometry and vectors, partial derivatives, multiple integrals, vector calculus. Prerequisite: MATH 132. (F, S)

MATH 215 Calculus for Business (3). Basic concepts for differential and integral calculus to provide an operational knowledge of calculus, methods and techniques to solve quantitative problems in business and economics. (Business students only.) Prerequisite: MATH 119.

MATH 261 Mathematical Concepts I (3). The fundamental operations and an intuitive development of whole numbers, integers and rational numbers; elementary number theory; introduction to problem solving strategies; introduction to functions and modeling. Prerequisite: one of the following: (1) ACT score greater than or equal to 19/SAT score greater than or equal to 470 or (2) MATH 101 and MATH 107 each with a grade of "C" or better. (F, S)

MATH 268 Workshop in Mathematics (1–3). As announced. (May be repeated for a maximum of 6 hours.)

MATH 293 Topics in Mathematics (1–3). As announced. (May be repeated for credit.)

MATH 317 Introduction to Geometry (3). Two- and three-dimensional Euclidean geometry and non-Euclidean geometry. Prerequisite: 9 hours of college math. (S)

MATH 340 Foundations of Higher Mathematics (3). Sets and logic, properties of integers, mathematical induction, functions, limits, sequences. Prerequisite: MATH 132. (F)

MATH 341 Abstract Algebra I (3). Formal algebraic systems: rings, fields, order relations, groups, modular arithmetic. Prerequisite: MATH 340. (S)

MATH 351 Ordinary Differential Equations (3). Ordinary differential equations and methods for solving such equations; power series and Laplace transformations; elementary theory of existence and uniqueness of solutions. Prerequisite: MATH 202. (F)

MATH 352 Introduction to Linear Algebra (3). Elementary treatment of linear algebra; topics include systems of linear equations, matrices, determinants, vector spaces, linear transformations, and eigenvalues and eigenvectors. Prerequisite: MATH 202 or 340 or CS 220. (S)

MATH 361 Mathematical Concepts II (3). Real numbers, non-axiomatic approach to geometry, mensuration with metric units, coordinate geometry, probability and statistics. Prerequisite: MATH 261. (F, S)

MATH 371 Real Analysis (3). An introduction to the theory of calculus. Real numbers, limits, sequences, series, continuity, differentiation, integration. Prerequisite: MATH 340. (Alt S)

MATH 407 Introduction to Complex Variables (3). Concepts of complex integration, differentiation, and mappings. Prerequisite: MATH 202.

MATH/CS 409 Numerical Analysis I (3). Solutions of equations in one variable, interpolation and polynomial approximation, numerical integration and numerical solutions of initial-value problems. Prerequisites: MATH 132; CS 123. (Alt F)

MATH/CS 410 Numerical Analysis II (3). Numerical linear algebra, numerical solutions of nonlinear systems of equations, partial differential equations and two-point boundary-value problems. Prerequisites: MATH 132; CS 123. (Alt S)

MATH 413 History of Mathematics (3). Concepts, symbols, and operations in mathematics; mathematical history in the teaching and learning of mathematics. Prerequisite: consent of instructor.

MATH 415 Set Theory (3). Axioms for sets, ordering, cardinality, natural numbers, real numbers, cardinal numbers, axiom of choice. Prerequisite: consent of instructor.

MATH 420 Combinatorial Analysis (3). Enumeration techniques; permutations, combinations, occupancy problems, generating functions, inclusion and exclusion, recurrence relations, Polya's theory of counting. Prerequisite: CS 220 or MATH 340 or consent of instructor.

MATH 422 Graph Theory (3). Trees, networks, cycles and circuits, planarity, colorability, matchings, independence, selected topics as time permits. Prerequisite: CS 220 or MATH 340 or consent of instructor. Recommended: CS 123.

MATH 423 Partial Differential Equations I (3). Partial differential equations; Fourier series; techniques for solving heat, wave and potential equations. Prerequisite: MATH 351. (Alt F)

MATH 424 Partial Differential Equations II (3). Fourier integrals; partial differential equations in higher dimensions; numerical solutions; selected topics as time permits. Prerequisite: MATH 423. (Alt S)

MATH 425 Mathematical Logic (3). Quantifiers, deductive proofs, predicate calculus, Godel's theorem. Prerequisite: MATH 340.

MATH 429 Teaching of Mathematics (3). Methodology in secondary mathematics. Classroom management, lesson plans, testing, evaluation, grades and record keeping, curriculum, teaching high school algebra and general mathematics. (F)

MATH 442 Abstract Algebra II (3). Applications of abstract algebra: topics include permutation groups, symmetry groups, codes, graph theory, Boolean algebra, logic, networks. Prerequisite: MATH 341.

MATH 451 Linear Algebra (3). Advanced topics in linear algebra: topics include vector spaces, matrix algebra, inner product spaces, algebraic eigenvalue problems, Jordan forms and computations with matrices. Prerequisite: MATH 352.

MATH 468 Workshop in Mathematics (1–3). As announced. (May be repeated for a maximum of 6 hours.)

MATH 491 Directed Study (1–3). Independent study. (May be repeated for a maximum of 4 hours.) Prerequisite: consent of instructor.

MATH 493 Topics in Mathematics (1–3). As announced. (May be repeated for credit.)