

4875. Customer Relationship Management. 3 hours. Exploration of the principles, practices, tools and technologies that underlie customer relationship management (CRM). Includes modules on building and sustaining long-term customer relationships, and using data mining and warehousing techniques to service these relationships. Also focuses on establishing CRM metrics and employing data analysis of CRM outcomes. Students are required to develop a CRM strategic plan for a market offering. Prerequisite(s): MKTG 3650 (non-business majors may take MKTG 2650) or consent of department.

4880. Advanced Marketing Management. 3 hours. Application of concepts, tools and procedures employed by practicing marketing managers. Specific attention is given to product development and management, promotion development and management, channel selection and management, physical distribution management and price setting and management. Students acquire skills in the essentials of case analysis and written as well as oral presentation of their analysis. Oral presentations may be made using electronic media. Groups may be required for case work. Prerequisite(s): MKTG 3700 and MKTG 3710.

4890. Applied Marketing Problems. 3 hours. Capstone marketing course. Students work in team settings to develop a comprehensive marketing plan. The marketing plan requires students to integrate a wide range of marketing principles and practices. The integrated marketing plan requires students to identify market opportunities and challenges, formulate actionable plans to address organizational strengths and weaknesses, and execute a marketing mix strategy. Requires both oral and written presentation of the marketing plan. Prerequisite(s): MKTG 4880 and graduating senior status.

4900. Special Problems. 1-3 hours each.

Master's Engineering Technology

see *Graduate Catalog*

Materials Science and Engineering

Materials Science, MTSC

2900-2910. Introduction to Materials Science Research. 1-3 hours. Individualized laboratory instruction. Students may begin training on laboratory research techniques.

4500. Internship in Materials Science. 3 hours. A supervised industrial internship requiring a minimum of 150 hours of work experience. Prerequisite(s): consent of department.

4900-4910. Materials Science Research. 1-3 hours. Introduction to research; may consist of an experimental, theoretical or review topic.

4920. Cooperative Education in Materials Science. 3 hours. Supervised work in a job directly related to the student's major, professional field of study or career objectives. Prerequisite(s): 12 hours of credit in materials science; student must meet employer's requirements and have consent of department. May be repeated for credit.

Mathematics

Mathematics, MATH

Students taking mathematics courses at the 2000 level or above are expected to be competent in computer programming using such languages as BASIC, C, FORTRAN or PASCAL. This competency can be obtained through completion of CSCE 1020.

For all mathematics courses, a grade of C or better is strongly recommended before progressing to the next course.

1010. Fundamentals of Algebra. 3 hours. Basic algebraic operations, linear equations and inequalities, polynomials, rational expressions, factoring, exponents and radicals, and quadratic equations. Prerequisite(s): consent of department. Students may not enroll in this course if they have credit for any other UNT mathematics course. Credit in this course does not fulfill any degree requirement. Pass/no pass only.

1100 (MATH 1314 or 1414). College Algebra. 3 hours. Quadratic equations; systems involving quadratics; variation, ratio and proportion; progressions; the binomial theorem; inequalities; complex numbers; theory of equations; determinants; partial fractions; exponentials and logarithms. Prerequisite(s): two years of high school algebra and one year of geometry, and consent of department. A grade C or better in MATH 1100 is required when MATH 1100 is a prerequisite for other mathematics courses. *Satisfies the Mathematics requirement of the University Core Curriculum.*

1190 (MATH 1325 or 1425). Business Calculus. 3 hours. Differential and integral calculus with emphasis on applications to business. Prerequisite(s): MATH 1100 with grade of C or better. *Satisfies the Mathematics requirement of the University Core Curriculum.*

1350. Mathematics for Elementary Education Majors I. 3 hours. Concepts of sets, functions, numeration systems, different number bases, number theory, and properties of the natural numbers, integers, rational, and real number systems with an emphasis on problem solving and critical thinking. Only for students requiring course for teacher certification. Prerequisite(s): MATH 1100 with a grade of C or better. *Satisfies the Mathematics requirement of the University Core Curriculum.*

1351. Mathematics for Elementary Education Majors II. 3 hours. Concepts of geometry, probability and statistics, as well as applications of the algebraic properties of real numbers to concepts of measurement with an emphasis on problem solving and critical thinking. Only for students requiring course for teacher certification. Prerequisite(s): MATH 1350. *Satisfies the Mathematics requirement of the University Core Curriculum.*

1400. College Math with Calculus. 3 hours. An applied mathematics course designed for non-science majors. All topics are motivated by real world applications. Equations, graphs, functions; exponentials and logarithms; mathematics of finance; systems of linear equations and inequalities, linear programming; probability; basic differential calculus with applications. Prerequisite(s): two years of high school algebra and consent of department; or MATH 1100 with grade of C or better. *Satisfies the Mathematics requirement of the University Core Curriculum.*