COURSE DESCRIPTIONS

MATHEMATICS

MATH 1314 COLLEGE ALGEBRA

Format: 3 lecture (3 credit hours)
Topics include and in-depth study and applications of polynomial rational radical exponential and logarithmic functions and systems of equations using matrices. Additional topics such as sequences series probability and conics may be included.
Prerequisite: MTH 0306, meeting college algebra standard on the Texas Success Initiative (TSI) exam or equivalent exam, or concurrent enrollment in the appropriate co-requisite developmental course.
Credits: 3
Distribution: MATH
Course Fee: Internet course fee (if applicable) = $43

MATH 1316 PLANE TRIGONOMETRY

Format: 3 lecture (3 credit hours)
Topics Include an in-depth study and applications of trigonometry including definitions identities inverse functions solutions of equations graphing and solving triangles. Additional topics such as vectors polar coordinates and parametric equations may be included.
Prerequisite: MATH 1314 or a satisfactory score on the TSI exam or equivalent exam.
Credits: 3
Distribution: MATH
Course Fee: Internet course fee (if applicable) = $43

MATH 1324 MATHEMATICS FOR BUSINESS AND SOCIAL SCIENCES

Format: 3 lecture (3 credit hours)
The application of common algebraic functions including polynomial, exponential, logarithmic, and rational, to problems in business, economics, and the social sciences are addressed. The applications include mathematics of finance, including simple and compound interest and annuities; systems of linear equations; matrices; linear programming; and probability, including expected value.
Prerequisite: MTH 0306, meeting college algebra standard on the TSI exam or equivalent exam, or concurrent enrollment in the appropriate co-requisite developmental course.
Credits: 3
Distribution: MATH
Course Fee: Internet course fee (if applicable) = $43

MATH 1325 CALCULUS FOR BUSINESS AND SOCIAL SCIENCE

Format: 3 lecture (3 credit hours)
This course is the basic study of limits and continuity differentiation optimization and graphing and integration of elementary functions with emphasis on applications in business economics and social sciences. This course is not a substitute for MATH 2413 Calculus I.
College Algebra with a grade of Mathematics for Business and Social Sciences with a grade of C or higher or equivalent
Credits: 3
Distribution: MATH
Course Fee: Internet course fee (if applicable) = $43

MATH 1332 CONTEMPORARY MATHEMATICS (QUANTITATIVE REASONING)

Format: 3 lecture (3 credit hours)
Intended for Non Stem (Science, Technology, Engineering and Mathematics) Majors. Topics include introductory treatments of sets and logic, financial mathematics, probability and statistics with appropriate applications. Number sense, proportional reasoning, estimation, technology, and communication should be embedded throughout the course.
Prerequisite: MTH 0305, or satisfactory score on the TSI exam or equivalent exam, or concurrent enrollment in the appropriate co-requisite developmental course. Students planning on transferring to senior institutions should check the transferability of this course.
Credits: 3
Distribution: MATH
Course Fee: Internet course fee (if applicable) = $43

MATH 1342 ELEMENTARY STATISTICAL METHODS

Format: 3 lecture (3 credit hours)
Collection analysis presentation and interpretation of data and probability. Analysis includes descriptive statistics correlation and regression confidence intervals and hypothesis testing. Use of appropriate technology is recommended.
Prerequisite: MTH 0305, or satisfactory score on the TSI exam or equivalent exam, or concurrent enrollment in the appropriate co-requisite developmental course.

Credits: 3
Distribution: MATH
Course Fee: Internet course fee (if applicable) = $43

MATH 1350 MATHEMATICS FOR TEACHERS I

Format: 3 lecture (3 credit hours)
This course is intended to build or reinforce a foundation in fundamental mathematics concepts and skills. It includes the conceptual development of the following: sets, functions, numeration systems, number theory, and properties of the various number systems with an emphasis on problem solving and critical thinking.
Prerequisite: MATH 1314 - College Algebra with a grade of C or higher or equivalent
Credits: 3
Distribution: MATH
Course Fee: Internet course fee (if applicable) = $43

MATH 1351 MATHEMATICS FOR TEACHERS II

Format: 3 lecture (3 credit hours)
This course is intended to build or reinforce a foundation in fundamental mathematics concepts and skills. It includes the concepts of geometry, measurement, probability, and statistics with an emphasis on problem solving and critical thinking.
Prerequisite: MATH 1350 and College Algebra both with a grade of C or higher or the equivalent.
Credits: 3
Distribution: MATH
Course Fee: Internet course fee (if applicable) = $43

MATH 2313 CALCULUS I

Format: 3 lecture (3 credit hours)
Topics include limits and continuity; the Fundamental Theorem of Calculus; definition of the derivative of a function and techniques of differentiation; applications of the derivative to maximizing or minimizing a function; the chain rule, mean value theorem, and rate of change problems; curve sketching; definite and indefinite integration of algebraic, trigonometric, and transcendental functions, with an application to calculation of areas.
Prerequisite: MATH 2412-Pre-Calculus Math or equivalent preparation.
Credits: 3
Distribution: MATH

MATH 2315 CALCULUS III

Format: 3 lecture (3 credit hours)
Advanced topics in calculus including vectors and vector-valued functions, partial differentiation, Lagrange multipliers, multiple integrals, and Jacobian's application of the line integral, including Green's Theorem, the Divergence Theorem, and Stokes' Theorem.
Prerequisite: MATH 2414-Calculus II.
Credits: 3
Distribution: MATH
Course Fee: Internet course fee (if applicable) = $43

MATH 2412 PRE-CALCULUS MATH

Format: 4 lecture (4 credit hours)
Topics include an in-depth combined study of algebra, trigonometry, and other topics for calculus readiness.
Prerequisite: MATH 1314-College Algebra with a grade of C or higher or meeting Pre-Calculus standard on the or equivalent exam.
Credits: 4
Distribution: MATH
Course Fee: Internet course fee (if applicable) = $43

MATH 2413 CALCULUS I

Format: 4 lecture (4 credit hours)
Topics include limits and continuity; the Fundamental Theorem of Calculus; definition of the derivative of a function and techniques of differentiation; applications of the derivative to maximizing or minimizing a function; the chain rule mean value theorem and rate of change problems; curve sketching; definite and indefinite integration of algebraic trigonometric and transcendental functions with an application to calculation of areas.
Prerequisite: MATH 2412-Pre-Calculus Math with a grade of C or higher or equivalent preparation.
Credits: 4
Distribution: MATH
Course Fee: Internet course fee (if applicable) = $43

MATH 2414 CALCULUS II

Format: 4 lecture (4 credit hours)

Topics include differentiation and integration of transcendental functions; parametric equations and polar coordinates; techniques of integration; sequences and series; improper integrals.
Prerequisite: MATH 2413-Calculus with a grade of C or higher or equivalent preparation.
Credits: 4
Distribution: MATH
Course Fee: Internet course fee (if applicable) = $43

MATH 2415 CALCULUS III

Format: 4 lecture (4 credit hours)
Advanced topics in Calculus, including vectors and vector-valued functions, partial differentiation, Lagrange multipliers, multiple integrals, and Jacobian's; application of the line integral, including Green's Theorem, the Divergence Theorem, and Stokes' Theorem.
Prerequisite: Math 2414 Calculus II
Credits: 4
Distribution: MATH
Course Fee: Internet course fee (if applicable) = $43

Navarro College is accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) to award associate and baccalaureate degrees. Navarro College also may offer credentials such as certificates and diplomas at approved degree levels. Questions about the accreditation of Navarro College may be directed in writing to the Southern Association of Colleges and Schools Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097, by calling (404) 679-4500, or by using information available on SACSCOC's website.