MATH - MATHEMATICS

MATH 19 - Fundamentals of College Mathematics I — Units: 3
This is the first half of a 2-semester course covering Math 120 content. Presentation is adapted to needs of students with learning or physical disabilities. Enrollment by departmental permission. (Credit does not apply to any baccalaureate degree program.) Mathematical concepts particularly relevant to informed and aware citizenship in modern society. Topics covered include functions, graphs, problem solving, topics in finance, geometry, probability and statistics. Satisfies UNR core curriculum. Note: Computer use and graphing calculator may be required (TI-83/84 recommended).
Transferability: May not transfer towards an NSHE bachelor's degree
Enrollment Requirements: Prerequisite: A grade of 'C' or better in MATH 96 or equivalent or qualifying ACCUPLACER, ACT/SAT test results (within 2 years). A grade of 'B-' or better in MATH 95 in lieu of MATH 96.
Term Offered: AS NEEDED

MATH 20 - Learning Support for MATH 120/120E — Units: 2
Provides a review of algebra, corequisite mathematical support, and just in time material for MATH 120, Fundamentals of College Mathematics.
Transferability: May not transfer towards an NSHE bachelor's degree

MATH 24 - Learning Support for Math 124/124E — Units: 2
This course provides the just-in-time algebraic support for MATH 124. The course will refresh, review and introduce a variety of concepts to be successful in MATH 124, College Algebra, including exponents and their properties, polynomials, rational and radical expressions, graphing, interval notation, proportions and variations.
Transferability: May not transfer towards an NSHE bachelor's degree

MATH 26 - Learning support for Math 126/126E — Units: 3
Provides a review of algebra, corequisite mathematical support, and just in time material for MATH 126, PreCalculus I.
Transferability: May not transfer towards an NSHE bachelor's degree
Enrollment Requirements: Must enroll concurrently with MATH 126.

MATH 90 - Continuing Studies in Math — Units: 0.5-3
This developmental course is for assessment purposes. Developmental students may register for this course without taking Accuplacer.
Enrollment Requirements: Prerequisite: Qualifying Accuplacer score, ACT/SAT test results.
Term Offered: Spring and Fall

MATH 95 - Elementary Algebra — Units: 3
A first course in algebra. Topics covered include the fundamental operations on real numbers, first degree equations, inequalities in one variable, polynomials, integer exponents, solving quadratic equations by factoring. Note: Computer use and graphing calculator may be required (TI-83/84 recommended).
Enrollment Requirements: Prerequisite: Qualifying ACCUPLACER, ACT/SAT test results or equivalent (taken within 2 years).
Term Offered: All Semesters

MATH 96 - Intermediate Algebra — Units: 3
A second course in algebra. Topics covered include: solving quadratic, rational and radical equations, simplifying rational and radical expressions and complex numbers, and solving application problems. Note: Computer use and graphing calculator may be required (TI-83/84 recommended).
Enrollment Requirements: Prerequisite: A grade of 'C' or better in MATH 95, or MATH 120, or equivalent or qualifying ACCUPLACER, ACT/SAT test results (taken within 2 years).
Term Offered: All Semesters

MATH 100 - Math for Allied Health and Public Safety Programs — Units: 3
A review of basic mathematics with emphasis on those mathematical skills needed for allied health and public safety programs. This course will include a review of arithmetic, material on the metric system, apothecary system, dosages and solutions.
Transferability: May not transfer towards an NSHE bachelor's degree
Term Offered: AS NEEDED

MATH 105 - Applied Topics in Math — Units: 3
A course including the following topics: review of arithmetic, algebra, geometry and graphical representation.
Transferability: May not transfer towards an NSHE bachelor's degree
Term Offered: AS NEEDED

MATH 106 - Geometry — Units: 3
Introductory Euclidean Geometry. Basic theorems concerning triangles and other polygons, and circles. Elementary Logic, geometric constructions and proofs are introduced.
Enrollment Requirements: Prerequisite: MATH 95 or equivalent or qualifying Accuplacer, ACT/SAT test results (taken within 2 years).
Term Offered: AS NEEDED

MATH 107 - Real Estate Math — Units: 3
Review of basic arithmetic principles. A general mathematics course designed to assist the student who wishes to pass the state exam and the student who wants to be more proficient and knowledgeable in the real estate profession. Decimals, percentages, fractions, prorations, tax rate, interest, discount and depreciation are included.
Transferability: May not transfer towards an NSHE bachelor's degree
Term Offered: AS NEEDED

MATH 108 - Math for Technicians — Units: 3
This applied mathematics course is designed to give the student math skills as they are applied to specific career choice areas. Topics for all individual applied areas (transportation, metalworking, construction, etc.) will include algebra and trigonometry, but the focus of the presentation and utilization will be specific to the industry area. The course will include demonstrations and hands-on exercises applying mathematics as it will be needed in the specific technical environment.
Transferability: May not transfer towards an NSHE bachelor's degree
Term Offered: AS NEEDED

MATH 119 - Fundamentals of College Mathematics II   **Units: 3**
A continuation of MATH 19 covering remaining topics of MATH 120. Presentation is adapted to needs of students with learning or physical disabilities. (This course may be substituted for MATH 120 in degrees and programs) Mathematical concepts particularly relevant to informed and aware citizenship in modern society. Topics covered include functions, graphs, problem solving, topics in finance, geometry, probability and statistics. Satisfies UNR core curriculum. Note: Computer use and graphing calculator may be required (TI-83/84 recommended). Note: Completing MATH 119 is designed to be equivalent to completing MATH 120. Therefore, MATH 119 satisfies Math Gen Ed for AA and AAS but not AS.
Enrollment Requirements: Prerequisite: A grade of 'C' or better in MATH 19. A graphing calculator may be required.
Term Offered: AS NEEDED

MATH 120 - Fundamentals of College Mathematics   **Units: 3**
This course covers the mathematical concepts particularly relevant to non-science majors. Topics covered include problem-solving, topics in finance, probability, statistics, and additional real-world applications. Note: Computer use and graphing calculator may be required (TI-83/84 recommended).
Enrollment Requirements: Prerequisite: A grade of 'C' or better in MATH 96 or equivalent; or an S in MATH 20; or qualifying ACCUPLACER, ACT/SAT test results (within 2 years). A graphing calculator may be required.
Term Offered: All Semesters

MATH 122 - Number Concepts for Elementary School Teachers   Units: 3
Mathematics needed by those teaching new-content mathematics courses at the elementary school level with emphasis on the structure of the real number system and its subsystems. Designed for students seeking a teaching certificate in elementary education. Open to others with approval of department chair. This course may be taken before, after or during the same semester as MATH 123.
Enrollment Requirements: Prerequisite: A grade of 'C' or better in MATH 120 or MATH 124 or MATH 126 or equivalent or qualifying ACCUPLACER, ACT/SAT test results (taken within 2 years). A graphing calculator may be required for this course.
Term Offered: Fall

MATH 123 - Statistical & Geometrical Concepts for Elementary School Teachers   Units: 3
Mathematics needed by those teaching new-content mathematics courses at the elementary school level with emphasis on geometry, algebra, probability, and statistics. Designed for students seeking a teaching certification in elementary education. This course may be taken before, after or during the same semester as MATH 122.
Enrollment Requirements: Prerequisite: A grade of 'C' or better in MATH 120 or MATH 124 or MATH 126 or equivalent or qualifying ACT/SAT test results (taken within 2 years). A graphing calculator may be required for this course.
Term Offered: Spring

MATH 124 - College Algebra   **Units: 3**
The study of equations and inequalities, relations and functions, linear, quadratic, polynomial, rational, exponential, logarithmic and their applications.
Enrollment Requirements: Completion of MATH 096, or an S in MATH 24; or qualifying ACCUPLACER, ACT/SAT scores within 2 years. Students may enroll concurrently in MATH 24 without any prerequisite.

MATH 126 - Pre-Calculus I   **Units: 3**
The study of functions, their properties, their graphs, and applications including polynomial, radical, rational, exponential and logarithmic functions. The course also covers the solving of equations, systems of equations, and inequalities.
Enrollment Requirements: A grade of 'C' or better in MATH 96; or an S in MATH 26; or qualifying ACCUPLACER, ACT/SAT scores within 2 years. Students may enroll concurrently with MATH 26 without any prerequisite. A graphing calculator may be required (TI 83/84 recommended).
Term Offered: All Semesters

MATH 127 - Pre-Calculus II   **Units: 3**
This course is a continuation of MATH 126. It includes the study of circular functions, their graphs and applications, analytic trigonometry, the coordinate geometry of lines and conics and elementary vector algebra. Note: Computer use and graphing calculator may be required (TI-83/84 recommended).
Enrollment Requirements: Prerequisite: A grade of 'C' or better in MATH 126 or equivalent or qualifying ACCUPLACER, ACT/SAT test results (taken within 2 years). A graphing calculator may be required.
Term Offered: All Semesters

MATH 176 - Introductory Calculus for Business and Social Sciences
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Topics covered include graphing functions, derivatives, integrals, applications, the Fundamental Theorem of Calculus. This course is designed for business and social science majors.
Enrollment Requirements: Prerequisite: A grade of 'C' or better in MATH 124, MATH 126 or equivalent; or qualifying ACT/SAT test results (taken within 2 years). A graphing calculator may be required.
Term Offered: Spring and Fall

MATH 181 - Calculus I   **Units: 4**
Topics covered include functions, the derivative, differentiation of functions, applications of the derivative, understanding the definite integral, finding integrals and applications of integrals. Throughout the course topics will be viewed geometrically, numerically and algebraically. This course is oriented toward students of mathematics, physical science and engineering. Satisfies UNR math core curriculum. Note: Computer use and graphing calculator may be required (TI-83/84 recommended).
Enrollment Requirements: Prerequisite: A grade of 'C' or better in MATH 127 or MATH 128 (Taught at other NSHE Institutions) or equivalent or qualifying ACCUPLACER, ACT/SAT test results (within 2 years). A graphing calculator may be required.
Term Offered: Spring and Fall

MATH 182 - Calculus II   **Units: 4**
A continuation of MATH 181. Topics covered include a continuation of the definite integral, finding integrals and applications of integrals, differential equations and approximations of functions with simpler functions. Throughout the course topics will be viewed geometrically, numerically and algebraically. This course is oriented toward students of mathematics, physical science and engineering. Note: Computer use and graphing calculator may be required (TI-83/84 recommended).
Enrollment Requirements: Prerequisite: A grade of 'C' or better in MATH 181 or equivalent or qualifying ACCUPLACER, ACT/SAT test results (taken within 2 years). A graphing calculator may be required.
Term Offered: Spring and Fall

MATH 283 - Calculus III   **Units: 4**

A continuation of MATH 182. Topics covered include vectors, differentiating and integrating functions of many variables, optimization, parametric curves and surfaces, line integrals, flux integrals and vector fields. Throughout the course topics will be viewed geometrically, numerically and algebraically. This course is oriented toward students of mathematics, physical science and engineering. Note: Computer use and graphing calculator may be required (TI-83/84 recommended).

Enrollment Requirements: Prerequisite: A grade of 'C' or better in MATH 182 (taken within 2 years).

Term Offered: Spring and Fall

MATH 285 - Differential Equations   **Units: 3**

Theory and solving techniques for constant and variable coefficient linear equations and a variety of non-linear equations. Emphasis on those differential equations arising from real world phenomena. Note: Computer use and graphing calculator may be required (TI-83/84 recommended).

Enrollment Requirements: Prerequisite: A grade of 'C' or better in MATH 182 or equivalent. A graphing calculator may be required for this course.

Term Offered: Spring and Fall

MATH 295 - Proof Writing for Math/Stat Major   **Units: 3**

Foundations of mathematical proof writing for advanced courses in the Math/Stat majors. Proof methods will be applied to topics in logic; mathematical induction; elementary set theory; functions; properties of integers and real numbers.

Enrollment Requirements: Prerequisite: MATH 283 with a C or better.

MATH 330 - Linear Algebra   **Units: 3**

Vector analysis continued; abstract vector spaces, bases, inner products, projections, orthogonal complements, least squares, linear maps, structure theorems, elementary spectral theory, applications.

Enrollment Requirements: Co-requisite: MATH 283.