# COURSES

## **PDF MATH**

MATH96DAlgebraReviewforMath1262CreditsCorequisite:Math126Offersasecondcourse in algebra.Includesmultiplying, dividing,and factoring polynomialexpressions, solvingpolynomialandrationalequations, algebraictechniquesinvolving exponentsand radicals, andsystems of linear equations.systems

MATH20Learning<br/>MATH 120Support<br/>1-3 CreditsPrerequisites:None.Corequisite:Enrollment in<br/>designated section of Math 120.Provides<br/>foundational material to support students in Math<br/>120, Fundamentals of College Mathematics.

MATH24Learning<br/>MATH 124Support<br/>1-3 CreditsPrerequisites:None.Corequisite:Enrollment in<br/>designated section of<br/>foundational material to support students in Math<br/>124, College Algebra.None.

MATH26 Learning Support for MATH 126 1-3 Credits Prerequisites: None. Corequisite: Enrollment in designated section of Math 126. Provides foundational material to support students in Math 126, Precalculus I.

#### MATH90 Elementary Arithmetic 1-3 Credits

Provides individualized instruction in basic math skills including addition, subtraction, multiplication, and division of whole numbers, fractions, and decimals. Intended for students who need a review of whole numbers before studying fractions. Instruction is tailored specifically to each student's needs.

#### MATH91 Basic Mathematics 3 Credits

Provides the fundamental operation of whole numbers, fractions and mixed numbers, decimals, percentage, measurement and geometry. The course is intended to provide a thorough review of basics needed in future mathematics courses and in applied fields.

**MATH92** Algebra Review 1 Credit Prerequisite: Previous success in Intermediate Algebra or Algebra II or higher algebra course. Provides a review of algebra that will refresh previously taught concepts. Designed for students who have successfully completed Algebra II or Intermediate Algebra or similar course sometime in the past. Provides a condensed review of topics from Intermediate Algebra intended to help students place into the appropriate course via Accuplacer Exam.

**MATH93 Pre Algebra 3 Credits** Prerequisites: MATH91 or equivalent or consent of instructor Prepares students for MATH 95. Helps students who have experienced difficulties with math to get an introduction to the language and concepts of algebra. Provides a transition from self-paced, basic math to the quick pace required in MATH 95.

#### MATH95 Elementary Algebra Credits

Offers a first course in algebra. Topics include operations with signed numbers; algebraic symbols; evaluating formulas; operations with polynominal, radical and rational expressions; solving equations and application problems using algebra; and elementary graphing. Provides a foundation for the math used in business, science, engineering and related fields.

#### MATH96 Intermediate Algebra 3 Credits

Offers a second course in algebra. Studies polynomial, rational and radical expressions; linear, quadratic and polynomial equations; linear and absolute value inequalities; relations, functions and their graphs; systems of linear equations; and applications.

# MATH98 Developmental Mathematics 3-5 Credits

Prerequisite: None Prepares students for collegelevel mathematics. Self-paced, computer aided course designed to provide students with the concepts and skills of pre, elementary and intermediate algebra.

MATH100 Math for Allied Health and Public Safety 1 Credit Prerequisites: None Reviews basic mathematics with emphasis on those skills that apply to calculating drug dosages. Includes fractions, decimals, proportions, percents, English apothecary and metric systems of measurements.

#### MATH110 Mathematics for Industry 3 Credits

Covers fractions, decimals, percentages, ratios, proportions, measurement, geometry, and briefly, the fundamentals of algebra and right triangle trigonometry.

#### MATH120 Fundamentals of College Mathematics 3 Credits

Prerequisite: Success in intermediate algebra, algebra II, MATH 96 or similar course is recommended as preparation for this course. Students should meet with a Counselor to determine readiness based on placement or equivalent exam, high school coursework, or other factors. Studies probability, statistics, business, finance and consumer mathematics. Course is broad in scope and emphasizes applications.

MATH122	Number	Concepts	for
	Elementary		hool
	Teachers	3 Cro	edits

Prerequisites: MATH120 or consent of instructor Introduces elementary problem solving with emphasis on the nature of numbers and the structure of the real number system. Designed for students seeking a teaching certificate in elementary education.

#### MATH123 Statistical & Geometrical Concepts for Elementary School Teachers 3 Credits

Prerequisites: MATH120 or consent of instructor Presents elementary problem solving with emphasis on patterns and geometric relationships. Designed for students seeking a teaching certificate in elementary education.

3 MATH124 College Algebra 3 Credits Prerequisites: Success in intermediate algebra, algebra II, MATH 96 or similar course ic is recommended as preparation for this course. Students should meet with a WNC s; Counselor to determine readiness based on placement or equivalent exam, high school a coursework, or other factors. Covers equations e, and inequalities; relations and functions; linear, quadratic, polynomial, exponential, and logarithmic functions; systems of linear equations.

**MATH126** Precalculus I **3 Credits** Prerequisite: Success in intermediate algebra, algebra II, MATH 96 or similar course is recommended as preparation for this course. Students should meet with a Counselor to determine readiness based on placement or equivalent exam, high school coursework, or other factors. Provides a third course in algebra. Topics include: polynomial, rational and radical equations; absolute value and quadratic inequalities: relations and functions: linear. quadratic, polynomial exponential and logarithmic functions, their graphs and applications; and systems of equations.

**MATH127 Precalculus II 3 Credits** Prerequisites: MATH 126 with a grade of C- or higher; or, ACT MATH score of 25 or higher or SAT MATH score of 560 or higher; or, a grade of B- or better in high school precalculus; or appropriate score on the WNC placement exam; or, consent of instructor. Studies circular functions, trigonometric identities and equations, conic sections, complex numbers, and discrete algebra.

### MATH128 Precalculus and Trigonometry 5 Credits

Prerequisites: MATH 096 with a grade of Cor better or appropriate score on the WNC math placement or equivalent exam or three units of high school mathematics at the level of algebra and above with a grade of Cor better within the last three years. Studies relations, functions and their graphs; polynomial, rational, exponential, logarithm and trigonometric functions; analytic trigonometry; systems of equations and inequalities; conics; mathematical induction; sequences and series.

#### MATH176 Introductory Calculus for Business & Social Sciences 3 Credits

Prerequisites: MATH 124, 126 or 128 or equivalent with a grade of C- or better; or, ACT MATH score of 25 or higher or SAT MATH score of 560 or higher; or, a grade of B- or better in high school precalculus; or, appropriate score on the WNC placement exam; or consent of instructor. Instructs students in fundamental ideas of analytical geometry and calculus. Includes plane coordinates, graphs, functions, limits, derivatives, integrals, the fundamental theorem of calculus. Includes applications to rates, extremalization, and interpretation of integrals.

MATH181Calculus I4 CreditsPrerequisites: MATH 127 or MATH 128 with a grade<br/>of C- or better; or, ACT MATH score of 28 or higher<br/>or SAT MATH score of 630 or higher; or, a grade<br/>of B- or better in high school trigonometry and<br/>precalculus; or, appropriate score on the WNC<br/>placement exam; or, consent of instructor. Offers

fundamental concepts of analytical geometry and calculus, functions, graphs, limits, derivatives, and integrals.

MATH182Calculus II4 CreditsPrerequisites:MATH181 or equivalent or consentof instructor.Teaches transcendental functions,methods of integration, conics, vectors.

MATH251	Discrete	Mathematics
	I.	3 Credits

Prerequisite: Math 182 A first course in discrete mathematics that provides an introduction to logic, set theory, relations, functions, digraphs, and cardinality.

**MATH283 Calculus III 4 Credits** Prerequisites: MATH182 or equivalent or consent of instructor Covers infinite series, vectors, differential and integral calculus of functions of several variables, and introduction to vector analysis.

#### MATH285 Differential Equations 3 Credits

Prerequisites: MATH283 Presents methods of solving ordinary differential equations with application to physical systems. Includes systems of equations, series solution, numerical solution, and Laplace transforms.

**MATH299 Directed Study 1-3 Credits** Prerequisite: Consent of instructor. Provides individual study conducted under the direction of a faculty member.

MATH330Linear Algebra3 CreditsPrerequisite:Math 283 Vector analysis continued;abstract vector spaces;bases, inner products;projections;orthogonal complements, leastsquares;linear maps, structure theorems;elementary spectral theory;applications.