

Mathematics

MATH 40

Pre-Algebra [RE] • 5.0 Credits

This introductory course includes computations with integers, fractions, and decimals, prime factorization, algebraic symbols and operations including integer exponents, square roots and inequalities, order of operations, percent, ratios and proportions, translating sentences into mathematical expressions, problem solving strategies, properties of standard geometric objects, and linear equations. \$11.40 Math lab fee. \$10 Math course fee for supplies and to provide tutoring for students. Students are encouraged to access tutoring at the Academic Success Center.

MATH 50

Quantitative Literacy [RE] • 5.0 Credits

This course is designed to engage students in complex and realistic situations involving the mathematics of quantity, change and relationships, spatial reasoning, geometric investigations, probability and statistics. Intermediate algebra topics include linear and nonlinear models, ratios, proportions, percents and dimensional analysis. Note that this course will not satisfy the intermediate algebra requirement of the University of Washington. \$10 math course fee for supplies and to provide tutoring for students. Students are encouraged to access tutoring at the Academic Success Center. **Prerequisite: A grade of 2.0 or better in MATH 40, or a grade of 0.7 or better in a higher math class, or appropriate placement.**

MATH 60

Algebra I [RE] • 5.0 Credits

This course includes linear equations and applications, linear inequalities, compound linear inequalities, absolute value equations and inequalities, graphing linear equations in two variables, slope and intercepts, finding the equation of a line, functions and relations, graphs of basic functions, systems of linear equations in two variables, systems of inequalities in two variables, adding and subtracting polynomials, polynomial multiplication and division. \$11.40 Math lab fee. \$10 Math course fee for supplies and to provide tutoring for students. Students are encouraged to access tutoring at the Academic Success Center. **Prerequisite: A grade of 2.5 or better in MATH 40, or a grade of 0.7 or better in a higher math class, or appropriate placement.**

MATH 62

Algebra I Supported [RE] • 7.0 Credits

This course includes linear equations and applications, linear inequalities, compound linear inequalities, absolute value equations and inequalities, graphing linear equations in two variables, slope and intercepts, finding the equation of a line, functions and relations, graphs of basic functions, systems of linear equations in two variables, systems of inequalities in two variables, adding and subtracting polynomials, polynomial multiplication and division. Additional two hours per week of the course will provide review for essential prerequisite material. \$11.40 Math lab fee. \$10 Math course fee for supplies and to provide tutoring for students. Students are encouraged to access tutoring at the Academic Success Center. **Prerequisite: A grade of 2.0 or better in MATH 40, or a grade of 0.7 or better in a higher math class, or appropriate placement.**

MATH 70

Algebra II [RE] • 5.0 Credits

This course includes factoring polynomials and solving polynomial equations, rational expressions, complex fractions, rational equations and inequalities, radical expressions, simplifying expressions with radicals and rational exponents, radical equations and functions, complex numbers, methods for solving quadratic equations and applications, exponential and logarithmic properties and equations. \$11.40 Math lab fee. \$10 Math

course fee for supplies and to provide tutoring for students. Students are encouraged to access tutoring at the Academic Success Center.

Prerequisite: A grade of 2.5 or better in MATH 60 or 62, or a grade of 0.7 or better in a higher math class, or appropriate placement.

MATH 72

Algebra II Supported [RE] • 7.0 Credits

This course includes factoring polynomials and solving polynomial equations, rational expressions, complex fractions, rational equations and inequalities, radical expressions, simplifying expressions with radicals and rational exponents, radical equations and functions, complex numbers, methods for solving quadratic equations and applications, exponential and logarithmic properties and equations. Additional two hours per week of the course will provide review for essential prerequisite material. \$11.40 Math lab fee. \$10 Math course fee for supplies and to provide tutoring for students. Students are encouraged to access tutoring at the Academic Success Center. **Prerequisite: A grade of 2.0 or better in MATH 60 or 62, or a grade of 0.7 or better in a higher math class, or appropriate placement.**

MATH 92

Special Topics In Mathematics • 1.0–10.0 Credits

This course is designed to give special mathematical topics to those students whose needs are not met with the existing curriculum. \$11.40 Math lab fee.

MATH 100

Algebraic Tools for Vocational Application [RE] • 5.0 Credits

Formerly MATH 100, MTH 100

Designed to introduce the student to the tools and concepts necessary to solve mathematical problems applicable to the student's trade. Topics include ratios and proportions, percentages, measurement, applying formulas, basic algebra concepts, geometry, and basic triangle trigonometry. \$11.40 Math lab fee. \$10 Math course fee for supplies and to provide tutoring for students. Students are encouraged to access tutoring at the Academic Success Center. **Prerequisite: Acceptance into CBC's Automotive, Welding Technology, or Manufacturing Technology program, or instructor permission.**

MATH 106

Business Mathematics [RE] • 5.0 Credits

Formerly MATH 106, MTH 106

Mathematical concepts used in business such as interest, annuities, mortgages, investments, and taxes. Required by some majors for the AAS degree; does not satisfy math requirement for AA degree. \$11.40 Math lab fee. \$10 Math course fee for supplies and to provide tutoring for students. Students are encouraged to access tutoring at the Academic Success Center. **Prerequisite: A grade of 2.0 or better in MATH 50, or a grade of 0.7 or better in a higher math class, or appropriate placement.**

MATH& 107

Math In Society [M/S] [Q/SR] • 5.0 Credits

Formerly MATH& 107, MTH 110, MTH 130

This course is designed for students who have successfully completed intermediate algebra coursework. This course will introduce students to mathematical applications in a variety of disciplines and will satisfy the quantitative/symbolic reasoning requirement for the AA degree. \$11.40 Math lab fee. \$10 Math course fee for supplies and to provide tutoring for students. Students are encouraged to access tutoring at the Academic Success Center. **Prerequisite: A grade of 2.0 or better in MATH 50, 70, or 72, or a grade of 0.7 or better in MATH 106 or a higher math class (except MATH 108), or appropriate placement.**

Mathematics

MATH 108

Math for Early Childhood Education [RE] • 5.0 Credits

Formerly MATH 108, MTH 108

An elementary introduction to problem-solving, fractions and decimals, probability and statistics, geometry and measurement, and functions and graphs. Intended for early childhood and para education majors only. \$11.40 Math lab fee. \$10 Math course fee for supplies and to provide tutoring for students. Students are encouraged to access tutoring at the Academic Success Center. **Prerequisite: A grade of 2.0 or better in MATH 40, or a grade of 0.7 or better in a higher math class, or appropriate placement.**

MATH 113

Geometry/Trigonometry [M/S] • 5.0 Credits

Formerly MATH 113, MTH 103, MTH 113

Areas and volumes of basic geometric figures, approximations, ratio and proportions, literal equations, scientific notation, vectors, logarithms, complex numbers, trigonometric functions, and graphs of trigonometric functions. Recommended for students intending to take PHYS& 114. \$11.40 Math lab fee. \$10 Math course fee for supplies and to provide tutoring for students. Students are encouraged to access tutoring at the Academic Success Center. **Prerequisite: A grade of 2.0 or better in MATH 70 or 72, or a grade of 0.7 or better in a higher math class, or appropriate placement.**

MATH& 141

Precalculus I [M/S] [Q/SR] • 5.0 Credits

Formerly MATH& 141, MTH 104, MTH 154

Designed to prepare students for entry into basic calculus. Precalculus I together with Precalculus II is designed to prepare students for entry into the calculus sequence: MATH& 151, MATH& 152, MATH& 153, and MATH& 254. The topics include: absolute value, complex numbers, linear and quadratic equations, rational, polynomial, exponential and logarithmic functions, inverse functions, theory of equations, and sequences and series. Students completing MATH& 141 may not receive graduation credit for MATH& 144. \$11.40 Math lab fee. \$10 Math course fee for supplies and to provide tutoring for students. Students are encouraged to access tutoring at the Academic Success Center. **Prerequisite: A grade of 2.0 or better in MATH 70 or 72, or a grade of 0.7 or better in a higher math class, or appropriate placement.**

MATH& 142

Precalculus II [M/S] [Q/SR] • 5.0 Credits

Formerly MATH& 142, MTH 105, MTH 155

Precalculus II is the second quarter of the precalculus sequence. Precalculus II is predominantly trigonometry. The topics include trigonometric functions and their inverses, solving triangles, circular functions, identities, conditional equations, complex numbers in polar form, conic sections, parametric and polar equations, systems of equations, matrices and determinants, and vectors. Students completing MATH& 142 may not receive graduation credit for MATH& 144. \$11.40 Math lab fee. \$10 Math course fee for supplies and to provide tutoring for students. Students are encouraged to access tutoring at the Academic Success Center. **Prerequisite: Completion of MATH& 141 with a 2.0 or better, or a higher math course with a 0.7 or better, or appropriate placement.**

MATH& 144

Precalculus I & II [M/S] [Q/SR] • 5.0 Credits

Formerly MATH& 144, MTH 107, MTH 157

Precalculus I & II is a condensed, accelerated combination of Precalculus I and Precalculus II. Selected topics from Precalculus I and Precalculus II are covered in one quarter, allowing the better prepared student to complete

the precalculus preparation in one quarter rather than two. The topics include polynomial, rational, logarithmic, and circular functions. Also, analytic geometry, complex numbers, vectors, and sequences and series. Students completing MATH& 144 may not receive graduation credit for MATH& 141 and/or MATH& 142. \$11.40 Math lab fee.

MATH& 146

Introduction to Stats [M/S] [Q/SR] • 5.0 Credits

Formerly MATH& 146, MTH 143

A course especially suited for the non-physical science major such as business, medical professionals, behavioral sciences, computer science, etc. A study of both descriptive and inferential statistics, including: measures of central tendency, random variables, probability, probability distributions, sampling methods, confidence intervals, hypothesis testing, estimation, linear regression, and correlation. \$11.40 Math lab fee. \$10 Math course fee for supplies and to provide tutoring for students. Students are encouraged to access tutoring at the Academic Success Center. **Prerequisite: A grade of 2.0 or better in MATH 50, 70, or 72, or a grade of 0.7 or better in a higher math class, or appropriate placement.**

MATH 147

Finite Math [M/S] [Q/SR] • 5.0 Credits

Formerly MATH 147, MTH 147, MTH 200

A course especially suited for students in behavioral, managerial, and social sciences. Topics include: matrices, systems of linear equations and inequalities, finance, probability and counting techniques, exponential, and logarithmic functions. \$11.40 Math lab fee. \$10 Math course fee for supplies and to provide tutoring for students. Students are encouraged to access tutoring at the Academic Success Center. **Prerequisite: A grade of 2.0 or better in MATH 70 or 72, or a grade of 0.7 or better in a higher math class, or appropriate placement.**

MATH& 148

Business Calculus [M/S] [Q/SR] • 5.0 Credits

Formerly MATH& 148, MTH 210

Designed for non-physical science majors such as business, management, behavioral science, and social science. Topics include: relations, functions, exponential and logarithmic functions, derivatives and their applications, integrals and their applications, and functions of several variables. \$11.40 Math lab fee. \$10 Math course fee for supplies and to provide tutoring for students. Students are encouraged to access tutoring at the Academic Success Center. **Prerequisite: A grade of 2.0 or better in one of the following courses: MATH 70 or MATH 72 or MATH 147, or appropriate placement. It is also recommended that students complete MATH& 141 prior to enrollment.**

MATH& 151

Calculus I [M/S] [Q/SR] • 5.0 Credits

Formerly MATH& 151, MTH 201, MTH 231

The first course in the sequence for students whose major field of study requires a full year of calculus. Topics include: limits of algebraic and trigonometric expressions and exponential and logarithm functions; the derivatives of algebraic, trigonometric functions, and their inverses; exponential and logarithm functions; hyperbolic functions and their inverses; applications of the derivative, and an introduction to antiderivatives and the definite and indefinite integral. \$11.40 Math lab fee. \$10 Math course fee for supplies and to provide tutoring for students. Students are encouraged to access tutoring at the Academic Success Center. **Prerequisite: A grade of 2.0 or better in MATH& 142, or appropriate placement.**

Mathematics

MATH& 152

Calculus II [M/S] [Q/SR] • 5.0 Credits

Formerly MATH& 152, MTH 202, MTH 232

A continuation of MATH& 151. Topics include: the fundamental theorem of calculus; techniques of integration; trigonometric integrals and substitution; applications of the definite integral including areas, average values, and volumes; improper integrals; and parametric equations, polar coordinates, arc length, and surface area with polar functions. \$11.40 Math lab fee. \$10 Math course fee for supplies and to provide tutoring for students. Students are encouraged to access tutoring at the Academic Success Center. **Prerequisite: A grade of 2.0 or better in MATH& 151, or a grade of 0.7 or better in a higher math class.**

MATH& 153

Calculus III [M/S] [Q/SR] • 5.0 Credits

Formerly MATH& 153, MTH 203, MTH 233

A continuation of MATH& 152. Topics include: infinite sequences and series; Maclaurin, Taylor, and power series; conic sections, vectors, and the calculus of vector functions in two and three dimensions with applications. \$11.40 Math lab fee. \$10 Math course fee for supplies and to provide tutoring for students. Students are encouraged to access tutoring at the Academic Success Center. **Prerequisite: A grade of 2.0 or better in MATH& 152, or a grade of 0.7 or better in a higher math class.**

MATH& 171

Math for Elementary Education I [M/S] • 5.0 Credits

Formerly MATH 121, MATH& 171, MTH 121, MTH 211

An introduction to problem-solving principles and strategies, sets and logic, numeration systems, properties of the real number system and its subsystems, and applications of mathematics. Primarily for elementary education majors. \$11.40 Math lab fee. \$10 Math course fee for supplies and to provide tutoring for students. Students are encouraged to access tutoring at the Academic Success Center. **Prerequisite: A grade of 2.0 or better in MATH 70 or 72, or a grade of 0.7 or better in a higher math class, or appropriate placement.**

MATH& 172

Math for Elementary Education II [M/S] [Q/SR] • 5.0 Credits

Formerly MATH 122, MATH& 172, MTH 122, MTH 212

An informal approach to the basic ideas of geometry; including construction, congruence and similarity, transformations, symmetry, measurement, and coordinate geometry. This course satisfies the quantitative skills requirement for the AA degree, provided that MATH& 171 (previously MATH 121) has also been successfully completed. \$11.40 Math lab fee. \$10 Math course fee for supplies and to provide tutoring for students. Students are encouraged to access tutoring at the Academic Success Center. **Prerequisite: Completion of MATH& 171 with a 2.0 or better.**

MATH& 173

Math for Elementary Education III [M/S] [Q/SR] • 5.0 Credits

Formerly MATH 123, MATH& 173

An elementary introduction to algebraic reasoning, probability, and statistics. Primarily for elementary education majors. This course satisfies the quantitative skills requirement for the AA degree, provided that MATH& 171 has been successfully completed. \$11.40 Math lab fee. \$10 Math course fee for supplies and to provide tutoring for students. Students are encouraged to access tutoring at the Academic Success Center. **Prerequisite: Completion of MATH& 171 with a 2.0 or better.**

MATH 199

Special Studies • 1.0–15.0 Credits

A class used to explore new coursework. \$11.40 Math lab fee. \$10 Math course fee for supplies and to provide tutoring for students. Students are encouraged to access tutoring at the Academic Success Center.

MATH 243

Linear Algebra [M/S] [Q/SR] • 5.0 Credits

Formerly MATH 243, MTH 213, MTH 243

Designed for physical science majors in fields such as mathematics, engineering, and physics. Topics include vectors, matrices and determinants, lines and planes in 3-space, linear systems, vector spaces, linear transformations, eigenvalues, and eigenvectors. \$11.40 Math lab fee. \$10 Math course fee for supplies and to provide tutoring for students. Students are encouraged to access tutoring at the Academic Success Center. **Prerequisite: A grade of 2.0 or better in MATH& 151, or a grade of 0.7 or better in a higher math class.**

MATH 246

Discrete Structures [M/S] [Q/SR] • 5.0 Credits

Formerly MATH 246, MTH 216, MTH 246

An introduction to discrete mathematics, trees, graphs, elementary logic, and combinatorics with applications to computer science. \$11.40 Math lab fee. \$10 Math course fee for supplies and to provide tutoring for students. Students are encouraged to access tutoring at the Academic Success Center. **Prerequisite: Completion of MATH& 141 with a 2.0 or better, or a higher math class with a minimum grade of 0.7. A knowledge of computers, programming, and calculus is beneficial but is not required.**

MATH& 254

Calculus IV [M/S] [Q/SR] • 5.0 Credits

Formerly MATH& 254, MTH 204, MTH 234

An introduction to the calculus applied to functions of two or three variables. Topics include: functions of several variables, partial derivatives, directional derivatives, multiple integration, integration using cylindrical and spherical coordinates, vector fields, line integrals, surfaces and surface integrals, Green's Theorem, Stoke's Theorem, and the Divergence Theorem. \$11.40 Math lab fee. \$10 Math course fee for supplies and to provide tutoring for students. Students are encouraged to access tutoring at the Academic Success Center. **Prerequisite: Completion of MATH& 153 with a 2.0 or better, or a higher math class with a 0.7 or better.**

MATH 255

Differential Equations [M/S] [Q/SR] • 5.0 Credits

Formerly MATH 255, MTH 254

Beginning course in differential equations. Topics include first order methods, linear differential operators, Laplace transforms, series methods, and numerical techniques. \$11.40 Math lab fee. \$10 Math course fee for supplies and to provide tutoring for students. Students are encouraged to access tutoring at the Academic Success Center. **Prerequisite: A grade of 0.7 or better in MATH& 153 or a higher math class, or concurrent enrollment in MATH& 153 or a higher math class.**

MATH 299

Special Studies • 1.0–15.0 Credits

A class used to explore new coursework. \$11.40 Math lab fee. \$10 Math course fee for supplies and to provide tutoring for students. Students are encouraged to access tutoring at the Academic Success Center.