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# MATHEMATICS (MATH)

**MATH 023 Fundamental Math 023**
2 Credits
The goal of this course is to provide students with an understanding of basic arithmetic operations. These skills will be applied to problem solving in real life situations; all Modules contain examples and questions relevant to First Peoples and culture. This course is a requirement for the CCP Fundamental Certificate.
**Prerequisites**
Placement at MATHEMATICS 023 Level
**Transfer Credits**
Explore transfer credit opportunities by visiting the BC Transfer Guide (http://www.bctransferguide.ca)

**MATH 026 Fundamental Mathematics 026**
2.5 Credits
The goal of this course is to provide students with an understanding of basic arithmetic operations. These skills will be applied to problem solving in real life situations; all Units contain examples and questions relevant to First Peoples' worldviews. These skills will be applied to problem solving in real life situations. This course is a requirement for the CCP Fundamental Certificate.
**Prerequisites**
Placement at the Math 026 level or credit in Math 0252
**Transfer Credits**
Explore transfer credit opportunities by visiting the BC Transfer Guide (http://www.bctransferguide.ca)

**MATH 032 Math for Trades**
6 Credits
The goal of this course is to enable students to acquire mathematical knowledge, skills, and strategies needed to enter trades programs or to satisfy career or personal goals. Topics include measurement, ratio and proportion, percents, geometry, signed numbers, basic algebra, solving equations, charts, tables and graphs, statistics, problem solving and additional material pertaining to specific jobs.
**Prerequisites**
Math 0202
**Transfer Credits**
Explore transfer credit opportunities by visiting the BC Transfer Guide (http://www.bctransferguide.ca)

**MATH 046 Advanced Business/Technical Mathematics**
4 Credits
This course is designed to provide learners with practical applications useful in future vocational training, careers, or personal life, and to graduate with the Adult Graduation Diploma. Learners will complete three core topics: Operations with Real Numbers, First Degree Equations and Inequalities, and Equations and their Graphs. They will also complete three additional topics including Data Analysis I, Data Analysis II, and either a Finance or Health option. Other optional topics may be used based on the learning outcomes at an instructor's discretion.
**Prerequisites**
Math 0301/0302 or equivalent, or placement at the advanced level.
**Transfer Credits**
Explore transfer credit opportunities by visiting the BC Transfer Guide (http://www.bctransferguide.ca)

**MATH 053 Provincial Level Calculus**
4 Credits
**Prerequisites**
Principles of Math 12 or MATH 0501/0502
**Transfer Credits**
Explore transfer credit opportunities by visiting the BC Transfer Guide (http://www.bctransferguide.ca)

**MATH 101 Calculus I: Differential Calculus**
3 Credits
Introduction to the fascinating theory and powerful techniques of calculus, tailored to the needs of students intending to major in science or engineering. The topics treated include limits, derivatives, techniques of differentiation, related rates, curve sketching, optimization, root finding, differentials, and trigonometric, logarithmic and exponential functions.
**Prerequisites**
Pre-Calculus 12 or equivalent with minimum grade of C.
**Transfer Credits**
Explore transfer credit opportunities by visiting the BC Transfer Guide (http://www.bctransferguide.ca)

**MATH 102 Calculus II: Integral Calculus**
3 Credits
Introduces the notion of integration, and applies the process to solve problems such as those of calculating the areas of regions with curved boundaries and the volumes of solids enclosed by curved surfaces, averaging quantities which vary in time, and determining completely specific expressions for functions when only relations among their rates of change are given. Students reaching the end of the course will be rewarded with a look at the theory of infinite series.
**Prerequisites**
MATH 101 with a minimum grade achieved of C
**Transfer Credits**
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**MATH 103 Differential Calculus With Applications**
3 Credits
Mathematics 103 is a one semester differential calculus course with special emphasis on function properties, function sketching and applications. Topics in this course include: limits, first and second derivatives, implicit derivatives, L'Hopital's rule and differentials. The emphasis in the discussion of these topics is on dunction properties and function sketching. Function properties emphasized include domain, range, symmetry, periodicity, intercepts, asymptotes, slop and curvature. Function types considered in this course include: linear, quadratic, polynomial, rational, root, exponential, logarith, trigonometric, inverse trigonometric, elliptic and hyperbolic. Applications will be taken from Physics, Chemistry, Biology and the Earth Sciences depending upon the background and interests of the student body and will include optimization, related rates and linear approximations.
**Transfer Credits**
Explore transfer credit opportunities by visiting the BC Transfer Guide (http://www.bctransferguide.ca)

**MATH 115 Precalculus**
3 Credits
This is a one semester course designed to prepare students to take Calculus I. The content of the course includes topics from a typical Math 12 course which are the most relevant to Calculus.
**Prerequisites**
Principles of Math 11 or Pre-Calculus 11 with minimum grade of B
**Transfer Credits**
Explore transfer credit opportunities by visiting the BC Transfer Guide (http://www.bctransferguide.ca)

**MATH 123 Everyday Mathematics**
3 Credits
This course will address mathematics applied in day to day life. Use math decisions on investments, borrowing, and gambling. Learn to detect false claims and make connections between mathematics and the arts. Much of the content will focus on math that is used in our daily lives.
**Prerequisites**
English Studies 11, English First Peoples 11 or equivalent and Pre-Calculus 11 or equivalent
**Transfer Credits**
Explore transfer credit opportunities by visiting the BC Transfer Guide (http://www.bctransferguide.ca)

**MATH 131 Introduction to Statistics**
3 Credits
Introduction to statistical methods. Persons completing the course will develop an understanding of the methods of statistics and facility with basic statistical techniques. Topics presented include descriptive statistics, probability and probability distributions, hypothesis testing, regression and correlation, analysis of variance and non-parametric statistics. (3,0,0)
**Prerequisites**
Principles of Math 11 or Applications of Math 12 or Foundations of Math 11 or Pre-Calculus 11
**Transfer Credits**
Explore transfer credit opportunities by visiting the BC Transfer Guide (http://www.bctransferguide.ca)

**MATH 140 Finite Mathematics**
3 Credits
Includes linear programming, matrix algebra, mathematics of finance, basic probability and statistics.
**Prerequisites**
Applications of Math 12 or Foundations of Math 11 or Pre-Calculus 11 or C+ or better in Princples of Math 11
**Transfer Credits**
Explore transfer credit opportunities by visiting the BC Transfer Guide (http://www.bctransferguide.ca)

**MATH 141 Calculus I for Social Sciences**
3 Credits
Introduction to mathematical techniques relevant to those students intending to major in commerce, economics and the social sciences. Topics presented include derivatives and rates of growth, techniques of differentiation, differentials, optimization, exponential, logarithmic and trigonometric functions, anti-derivatives. Not eligible for science credit. Students may not obtain credit for both MATH 101 and MATH 141. (3,0,0)
**Prerequisites**
Principles of Math 12
**Transfer Credits**
Explore transfer credit opportunities by visiting the BC Transfer Guide (http://www.bctransferguide.ca)

**MATH 145 Calculus II for Social Science**
3 Credits
Integral calculus and its application, including differential equations and application to business and economics. Introduction to multi-variable calculus. (3,0,0)
**Prerequisites**
Calculus 12
**Transfer Credits**
Explore transfer credit opportunities by visiting the BC Transfer Guide (http://www.bctransferguide.ca)

**MATH 150 Mathematics of Finance**
3 Credits
This course will provide the student with the skills necessary to solve common-practical business problems that employ the mathematics of finance. Learners will be introduced to concepts like market valuation of bonds, judging the viability of projects based on financial calculations, and financial schedules commonly seen in banking and accounting. The topics covered include simple interest formulas, compound interest formulas, annuities, amortization schedules, and net present value calculations.
**Prerequisites**
English Studies 12, English First Peoples 12 or equivalent and Math 11 or equivalent
**Transfer Credits**
Explore transfer credit opportunities by visiting the BC Transfer Guide (http://www.bctransferguide.ca)

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**MATH 161 Applied Math**
4 Credits
Topics include fractions, order of operations, proportion and rate, perimeter, area and volume, trigonometry, algebra, graphics, business math and statistics. Provides basic math skills necessary for surveying and data analysis.
**Prerequisites**
Principles of Math 11 or MATH 0401/0402
**Transfer Credits**
Explore transfer credit opportunities by visiting the BC Transfer Guide (http://www.bctransferguide.ca)

**MATH 190 Principles of Mathematics for Elementary Teachers**
4 Credits
This course will help the prospective elementary teacher understand the mathematical principles of elementary level mathematics. Topics covered will include: sets, functions and logic, whole number, fractional number, and rational number systems, geometry, and probability and statistics. Students should note this is neither a skills nor a methods course. (4,0,0)
**Prerequisites**
Principles of Math 11 or Foundations of Math 11 or Pre-Calculus 11
**Transfer Credits**
Explore transfer credit opportunities by visiting the BC Transfer Guide (http://www.bctransferguide.ca)

**MATH 235 Linear Algebra**
3 Credits
Mathematics 235 is an introductory course on vectors, matrices and linear equations with special emphasis on engineering applications. Topics in this course include: systems of linear equations, vector and matrix notation and operations, Gaussian elimination, determinants, vectors in n-dimensional space, dot and cross products, linear combinations of vectors, independence, subspaces, the concepts of basis and dimension, orthonormal bases for subspaces, the Gram-Schmidt algorithm, orthogonal matrices, eigenvalues, and eigenvectors, diagonalizable matrices, and symmetric matrices. Applications discussed include: least square, the pseudo-inverse, Linear transformations,change of basis, application to computer graphics and application to stochastic matrices.
**Prerequisites**
Precalculus 12 or Equivalent
**Transfer Credits**
Explore transfer credit opportunities by visiting the BC Transfer Guide (http://www.bctransferguide.ca)

**MATH 0241 Mathematics 0241**
2.5 Credits
The goal of this course is to provide students with an understanding of basic arithmetic operations. These skills will be applied to problem solving in real life situations; all Units contain examples and questions relevant to First Peoples and culture. This course is a requirement for the CCP Fundamental Certificate.
**Prerequisites**
Placement at Math 0241 level or credit in MATH 023
**Transfer Credits**
Explore transfer credit opportunities by visiting the BC Transfer Guide (http://www.bctransferguide.ca)

**MATH 0242 Fundamental Mathematics 0242**
2.5 Credits
The goal of this course is to provide students with an understanding of basic arithmetic operations. These skills will be applied to problem solving in real life situations; all Modules contain examples and questions relevant to First Peoples' worldviews. This course is a requirement for the CCP Fundamental Certificate.
**Prerequisites**
Placement at MATH 0242 Level or credit in MATH 0241
**Transfer Credits**
Explore transfer credit opportunities by visiting the BC Transfer Guide (http://www.bctransferguide.ca)

**MATH 0251 Fundamental Mathematics 0251**
2.5 Credits
The goal of this course is to provide students with an understanding of decimal related arithmetic operations including: adding, subtracting, multiplying and dividing and metric conversions. These skills will be applied to problem solving in real life situations; all modules contain examples and questions relevant to First Peoples' worldview. This course is a requirement for the CCP Fundamental Certificate.
**Prerequisites**
Placement at the Math 0251 level or credit in MATH 0242
**Transfer Credits**
Explore transfer credit opportunities by visiting the BC Transfer Guide (http://www.bctransferguide.ca)

**MATH 251 Statistics**
3 Credits
The emphasis of this introductory course in statistics is on business applications of statistical methods. The focus of the course is on describing data, analyzing statistical data, making decisions under uncertainty, and making predictions based on statistical data. Topics include descriptive statistics, probability theory, hypothesis testing, regression analysis and time series forecasting.
**Prerequisites**
MATH 150
**Transfer Credits**
Explore transfer credit opportunities by visiting the BC Transfer Guide (http://www.bctransferguide.ca)

**MATH 0252 Fundamental Mathematics 0252**
2.5 Credits
The goal of this course is to provide students with an understanding of fraction related arithmetic operations with: adding, subtracting, multiplying and dividing and metric conversions. These skills will be applied to problem solving in real life situations; all modules contain examples and questions relevant to First Peoples' worldviews. This course is a requirement for the CCP Fundamental Certificate.
**Prerequisites**
Placement at the Math 0252 level or credit in MATH 0251
**Transfer Credits**
Explore transfer credit opportunities by visiting the BC Transfer Guide (http://www.bctransferguide.ca)

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**MATH 0301 Intermediate Mathematics I**
2 Credits
Math 0301 is the first half of Intermediate Mathematics. The goals of Math 0301/0302 are to enable students to acquire mathematical knowledge, skills and strategies needed to enter higher level courses or to satisfy personal or career goals. Practical applications of learned skills are emphasized. Math 0301/0302 can be used towards an ABE Intermediate Certificate.
**Prerequisites**
Math 026
**Transfer Credits**
Explore transfer credit opportunities by visiting the BC Transfer Guide (http://www.bctransferguide.ca)

**MATH 0302 Intermediate Mathematics II**
2 Credits
Math 0302 is the second half of Intermediate Mathematics. The goals of Math 0301/0302 are to enable students to acquire mathematical knowledge, skills and strategies needed to enter higher level courses or to satisfy personal or career goals. Practical applications of learned skills are emphasized. Math 0301/0302 can be used towards an ABE Intermediate Certificate.
**Prerequisites**
Math 0301
**Transfer Credits**
Explore transfer credit opportunities by visiting the BC Transfer Guide (http://www.bctransferguide.ca)

**MATH 0401 Advanced Math**
2 Credits
MATH 0401 is the first half of Advanced Mathematics. The goals for MATH 0401/0402 are to provide students with sufficient mathematical knowledge to satisfy grade 11 prerequisites for vocational, career and technical programs. Topics include: a review of basic concepts, linear equations, inequalities, systems, functions and polynomials.
**Prerequisites**
Math 0302 or Math 045
**Transfer Credits**
Explore transfer credit opportunities by visiting the BC Transfer Guide (http://www.bctransferguide.ca)

**MATH 0402 Advanced Math**
2 Credits
MATH 0402 is the second half of Advanced Mathematics. The goals for MATH 0401/0402 are to provide students sufficient mathematical knowledge to satisfy grade 11 prerequisites for vocational, career and technical programs and to prepare students to enter Provincial Mathematics. Topics include rationals, radicals, quadratics and trigonometry.
**Prerequisites**
Math 0401
**Transfer Credits**
Explore transfer credit opportunities by visiting the BC Transfer Guide (http://www.bctransferguide.ca)

**MATH 0501 Provincial Mathematics**
2 Credits
Math 0501 is the first half of ABE Provincial Mathematics. The goals for Math 0501/0502 are to prepare students with the algebra and trigonometry skills necessary for entry to academic, technical or vocational programs including those requiring a Math 12 prerequisite. Topics include a review of Advanced Math concepts, equations and inequalities, functions and their graphs, and quadratic, polynomial and rational functions. Both Math 0501 and Math 0502 are required for Grade 12 Math equivalency.
**Prerequisites**
Math 0401/0402 or equivalent, or placement at the advanced level.
**Transfer Credits**
Explore transfer credit opportunities by visiting the BC Transfer Guide (http://www.bctransferguide.ca)

**MATH 0502 Provincial Mathematics**
2 Credits
Math 0502 is the second half of Provincial Mathematics. The goals for Math 0501/0502 are to prepare students with the algebra and trigonometry skills necessary for entry to academic, technical or vocational programs including those requiring a Math 12 prerequisite. Math 0501/0502 can be used towards a Provincial Diploma. Topics include logarithmic and exponential functions, trigonometry, analytic trigonometry, sequences and series. Both Math 0501 and Math 0502 are required for Grade 12 Math equivalency.
**Prerequisites**
Math 0501
**Transfer Credits**
Explore transfer credit opportunities by visiting the BC Transfer Guide (http://www.bctransferguide.ca)

**MATH 0525 Fundamental Math 0251**
2.5 Credits
The goal of this course is to provide students with an understanding of decimal related arithmetic operations including: adding, subtracting, multiplying and dividing and metric conversions. These skills will be applied to problem solving in real life situations; all modules contain examples and questions relevant to Aboriginal people and culture. This course is a requirement for the CCP Fundamental Certificate.
**Prerequisites**
Placement at the Math 025 level or completion of MATH 024
**Transfer Credits**
Explore transfer credit opportunities by visiting the BC Transfer Guide (http://www.bctransferguide.ca)