

Mathematics Curriculum

Program Overview

KG Math Department:
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MATHEMATICS

- Mathematics is essential for understanding and solving real world problems.
- Mathematical knowledge helps people make sense of the world.
- Mathematical habits of mind support connection, creativity, communication, visualization, and reasoning.
- Mathematical thinking empowers students to understand their world.
- The curriculum supports both deep and broad study based on student interests.
- The program map outlines recommended prerequisite pathways in Mathematics.

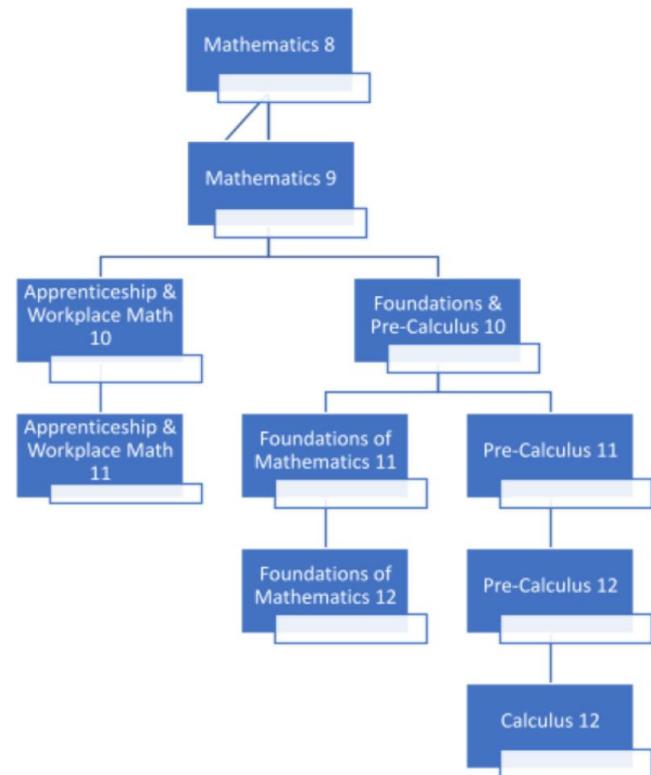
Mathematic Pathways

Workplace Mathematics

Foundations of Mathematics

Pre-Calculus

Calculus



MATHEMATICS 9

Course Code: MMA--09

- Rational number operations and order of operations
- Exponent laws with whole number exponents
- Polynomial operations (degree 2 or lower)
- Two variable linear relations using graphs and interpolation
- Multistep linear equations
- Spatial proportional reasoning
- Statistics in society
- Financial literacy including simple budgets

FOUNDATIONS OF MATH AND PRE CALCULUS 10

Course Code: MFMP-10

- Integral exponents and prime factorization
- Functions and relations
- Linear functions, slope, and equations of lines
- Arithmetic sequences
- Systems of linear equations
- Polynomial multiplication and factoring
- Primary trigonometric ratios
- Financial literacy including gross and net pay

WORKPLACE MATHEMATICS

10 Course Code: MWPM-10

- Create, interpret, and critique graphs
- Primary trigonometric ratios
- Metric and imperial conversions
- Surface area and volume
- Central tendency
- Experimental probability
- Financial literacy including gross and net pay

PRE CALCULUS 11

Course Code: MPREC11

- Real number system
- Powers with rational exponents
- Radical operations and equations
- Polynomial factoring
- Rational expressions and equations
- Quadratic functions and inequalities
- Trigonometry including non right triangles
- Financial literacy including compound interest

FOUNDATIONS OF MATHEMATICS 11 Course Code: MFOM-11

- Forms of mathematical reasoning
- Angle relationships
- Graphical analysis of inequalities and functions
- Applications of statistics
- Scale models
- Financial literacy including investments and loans

WORKPLACE MATHEMATICS

11 Course Code: MWPM-11

- Financial literacy including budgeting and investments
- Rate of change
- Use of probability and statistics
- Interpreting graphs in society
- Three dimensional objects and scale diagrams

PRE CALCULUS 12

Course Code: MPREC12

- Transformations of functions and relations
- Exponential functions and equations
- Geometric sequences and series
- Logarithms and related operations
- Polynomial and rational functions
- Trigonometric functions and identities

FOUNDATIONS OF MATHEMATICS 12 Course Code: MFOM-12

- Geometric explorations including conics and fractals
- Graphical representations of advanced functions
- Regression analysis
- Combinatorics
- Probability, odds, and expected value
- Financial planning

CALCULUS 12

Course Code: MCALC12

- Functions and graphs
- Limits including continuity and limits to infinity
- Differentiation and its applications
- Integration and its applications
- Preparation for post secondary study in mathematics

Post Secondary PATHWAYS 11



WPM 11

APPRENTICESHIPS
TRADES

SOME COLLEGE

SOME UNIVERSITY
TRANSFER

WORKFORCE

GRADUATION

Foundations 11

APPRENTICESHIPS
TRADES

MOST COLLEGE

SOME UNIVERSITY*.
(May require a Science 12)

WORKFORCE

GRADUATION

Pre-Calculus 11

APPRENTICESHIPS
TRADES

MOST COLLEGE

SOME UNIVERSITY*.
(Arts, Humanities, Social
Studies)

WORKFORCE

GRADUATION

*Always check post secondary
Admission Requirements

Post Secondary PATHWAYS 12



Foundations 12

ALL COLLEGE

ALL UNIVERSITY (ARTS,
HUMANITIES, SOCIALS)

SOME BUSINESS DEGREE
PROGAMS

Pre-Calculus 12

ALL COLLEGE PROGRAMS

ALL UNIVERSITY
PROGRAMS

(ENGINEERING,
BUSINESS, SCIENCE,
ARTS)

Calculus 12

RECOMMENDED ONLY:

SOME ENGINEERING
PROGRAMS

SAUDER/ROTMANS

SCHOOL OF BUSINESS

Workplace Math 11



YES

- Graduation
- Apprenticeships
- Trades
- College
- University Transfer
 - (Associate Degree)

NO

- UBC
- *SFU
- UVIC
- *Yes, if have one Science12 course

Foundations Math 11



YES

- Graduation
- Apprenticeships
- Trades
- Some University
- College
- University Transfer
 - Associate Degree

NO

- UBC
- *SFU
- *UVIC

- *Depends on program.
- *SFU (BA/BFA)= Yes, if have a grade 12 Science

Foundations Math 12



YES

- UBC (BA, BFA)
- SFU (BA, BFA)
- College
- Apprenticeships
- Trades

NO

- UBC (Sauder/Business)
- UBC, BSc.
(Sciences/Engineering)
- SFU, BSc.
(Sciences/Engineering)
- UVIC, BSc.
(Sciences/Engineering)

Pre-Calculus 11



YES

- Graduation
- Apprenticeships
- Trades
- UBC (BA/BFA only)
- College
- University Transfer
 - Associate Degree

NO

- UBC (BSc./BEng.)
- UBC (Sauder Business)
- SFU (BSc./BEng.)
- UVIC (BSc./BEng.)

Pre-Calculus 12



YES

- UBC
- SFU
- UVIC
- College
- Yes, to all University college programs

*Always check Admission Requirements

CALCULUS 12



- Recommended only:
- *Engineering
- Sauder Business
- Rotman's School of Business
- *Select few