

# New Westminster Online Learning School

# Pre-Calculus Math 11:

### **Course Description**

Students considering taking this course should have, within the past 5 years, achieved at least a C+ in Foundations of Mathematics and Pre-calculus 10 or an equivalent course or by our assessment.

This course builds on the concepts from Foundations of Mathematics and Pre-calculus 10 in that Functions, Inequalities, and Trigonometry help us to understand the abstract relationships prevalent in the world around us.

#### **Course Expectation**

Students are expected to complete their online course within a 4–5-month period of time. If additional time is needed, contact your course instructor.

# Enduring Understanding/Big Ideas

Students will focus on:

- Algebra allows us to generalize relationships through abstract thinking.
- The meanings of, and connections between, operations extend to powers, radicals, and polynomials.
- Quadratic relationships are prevalent in the world around us.
- Trigonometry involves using proportional reasoning to solve indirect measurement problems.

# Specific Learning Outcomes (link to bced.gov.bc.ca)

https://curriculum.gov.bc.ca/sites/curriculum.gov.bc.ca//files/curriculum/mathematics/en\_mathematics\_11\_pre-calculus\_elab.pdf



#### **Course Content**

Module 1	Finances
Module 2	Exponents
Module 3	Factoring
Module 4	Quadratics
Module 5	Rational Expressions
Module 6	Inequalities
Module 7	Trigonometry

# **Student Learning Activities and Strategies**

The online lessons use a combination of text, short videos, interactives, simulations, and animations to help students understand the concepts.

Each unit has a Learning Guide booklet aligned with the lessons, which form the notes and practice questions needed for that unit.

#### Assessment

Each unit has a Learning Guide, two quizzes and a test, which can all be completed from home. The Learning Guides and quizzes provide a way to check understanding and to get feedback and help from their teacher.

Students are also required to write two exams, a mid-term and final, at a supervised location. Students who live outside New Westminster, can arrange to have these invigilated at their school or at an educational institution where they live.

#### Evaluation

The final mark is determined by the progress you have made in understanding key concepts and skills, as demonstrated primarily on unit tests and the two exams.

#### Resources

All materials are available online.