ÉCOLE SECONDAIRE
WINDSOR
SECONDARY SCHOOL

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COURSE OUTLINE

SUBJECT: Foundations of Mathematics 10 and Pre-Calculus
(https://curriculum.gov.bc.ca/curriculum/mathematics/10/foundations-of-mathematics-and-pre-calculus)

BIG IDEAS:

Algebra allows us to generalize relationships through abstract thinking.	The meanings of, and connections between, each operation extend to powers and polynomials.	Constant rate of change is an essential attribute of linear relations and has meaning in different representations and contexts.	Trigonometry involves using proportional reasoning to solve indirect measurement problems.	Representing and analyzing situations allows us to notice and wonder about relationships.

CURRICULAR COMPETENCIES:

Students are expected to be able to do the following:

Reasoning and analyzing

- Use reasoning and logic to analyze and apply mathematical ideas
- Estimate reasonably
- Demonstrate fluent and flexible thinking of number
- Use tools or technology to analyze relationships and test conjectures
- Model mathematics in contextualized experiences

Understanding and solving

- Develop, demonstrate, and apply conceptual understanding of mathematical ideas
- Visualize to explore and illustrate mathematical concepts and relationships
- Apply flexible strategies to solve problems in both abstract and contextualized situations
- Engage in problem-solving experiences that are connected to place, story, cultural practices, and perspectives relevant to local First Peoples communities, the local community, and other cultures

Communicating and representing

- Communicate mathematical thinking in many ways
- Use mathematical vocabulary and language to contribute to mathematical discussions
- Represent mathematical ideas in a variety of ways
- Explain and justify mathematical ideas

Connecting and reflecting

- Reflect on mathematical thinking
- Use mathematics to support personal choices
- Connect mathematical concepts to each other and to other areas and personal interests
- Incorporate First Peoples worldviews and perspectives to make connections to mathematical concepts

CONTENT:

Students are expected to be able to do the following:

- operations on powers with integral exponents
- prime factorization
- functions and relations: connecting data, graphs, and situations
- linear functions: slope and equations of lines
- arithmetic sequences
- systems of linear equations
- multiplication of polynomial expressions
- polynomial factoring
- primary trigonometric ratios
- financial literacy: gross and net pay

RESOURCE MATERIALS:

Mathematics 10 (McGraw-Hill/Ryerson)
Locally developed supplemental packages
Direct entry scientific calculator required

POLICIES AND PROCEDURES:

1) PREPARATION FOR CLASS

It is the student's responsibility to arrive for each class **on time** with their notebook, pencils, calculator, and textbook. Good work habits, effort, regular attendance, and completion of assignments contribute to successful achievement.

2) ABSENCES

Missing classes for any reason will have an impact on learning, assessment, and evaluation. Students absent from class, whether excused or unexcused, are solely responsible for obtaining and completing any missed assignments, work, or homework. **Your teacher is not required to make special arrangements for unexcused absences.**

a) Students absent for illness, medical appointments, and other emergencies **must** contact their teacher **on the day they return to school** to submit overdue assignments and schedule missed assessments. All missed work can be found online during the absence.

b) Students absent for school related activities (ex. field trips, work experience, sports trips, etc.), **must** inform their teacher of this absence **in advance** of the activity, in order to receive specific instructions on work that will be missed and the rescheduling of missed assessments.

c) Students absent for any other reason, including family vacations, are considered **unexcused.** Any work or assessments missed for these absences may result in receiving a **zero** for that activity.

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(Student signature)   (Parent / Guardian signature)