Argyle Secondary School Math Department

Foundations and Pre-Calculus 10 Course Outline

Foundations and Pre-Calculus 10 ([Building Student Success - B.C. Curriculum (gov.bc.ca)](#))

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 COMPETENCY:
Students are expected to be able to do the following:

Reasoning and modelling

Develop thinking strategies to solve puzzles and play games
Explore, analyze, and apply mathematical ideas using reason, technology, and other tools
Estimate reasonably and demonstrate fluent, flexible, and strategic thinking about number
Model with mathematics in situational contexts
Think creatively and with curiosity and wonder when exploring problems

Understanding and solving

Develop, demonstrate, and apply mathematical understanding through play, story, inquiry, and problem solving
Visualize to explore and illustrate mathematical concepts and relationships
Apply flexible and strategic approaches to solve problems
Solve problems with persistence and a positive disposition
Engage in problem-solving experiences connected with place, story, cultural practices, and perspectives relevant to local First Peoples communities, the local community, and other cultures

Communicating and representing

Explain and justify mathematical ideas and decisions in many ways
Represent mathematical ideas in concrete, pictorial, and symbolic forms
Use mathematical vocabulary and language to contribute to discussions in the classroom
Take risks when offering ideas in classroom discourse

Connecting and reflecting

Reflect on mathematical thinking
Connect mathematical concepts with each other, other areas, and personal interests
Use mistakes as opportunities to advance learning
Incorporate First Peoples worldviews, perspectives, knowledge, and practices to make connections with mathematical concepts

CONTENT:
Students are expected to know 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:
The teacher will provide Mickelson Theory and Problems 10 workbook. Students can choose to purchase and write in the workbook or keep the workbook in "like new" condition and return at the end of the course. If students keep the book, a fee of approximately $30 will be charged through School Cash Online. **Direct Entry Scientific calculator required.**

MARKS and ASSESSMENT:
10% Formative Assessment (homework assignments)
70% Summative Assessment (quizzes and tests)
20% Final Exam

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, schedule missed assessments, and to receive missed work.
   b. Students absent for school related activities (ex. field trips, work experience, sports trips, etc.), **must** inform their teacher of this absence **well 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.