MATEMATICS AT BMSS

http://blogs.sd41.bc.ca/mountain-math/

COURSE FLOW CHART

```
                    Math 8
                      │
                      ▼
              Math 9 or
              Math 9 Enriched ──────────┐
                      │                  │
                      ▼                  ▼
   Foundations and Pre-Calculus    Workplace Math 10
   Math 10 or
   Foundations and Pre-Calculus
   Math 10 Enriched
        │        │         │            │
        ▼        ▼         ▼            ▼
  Pre-Calculus   Foundations of    Workplace Math 11
  11 or          Math 11
  Pre-Calculus
  11 Enriched
     │     │          │
     ▼     ▼          ▼
  Pre-     Foundations of
  Calculus Math 12
  12
     │
     ▼
  Calculus 12* or        Other Courses Offered:
  AP Calculus AB         Statistics 12 and AP Statistics **
```
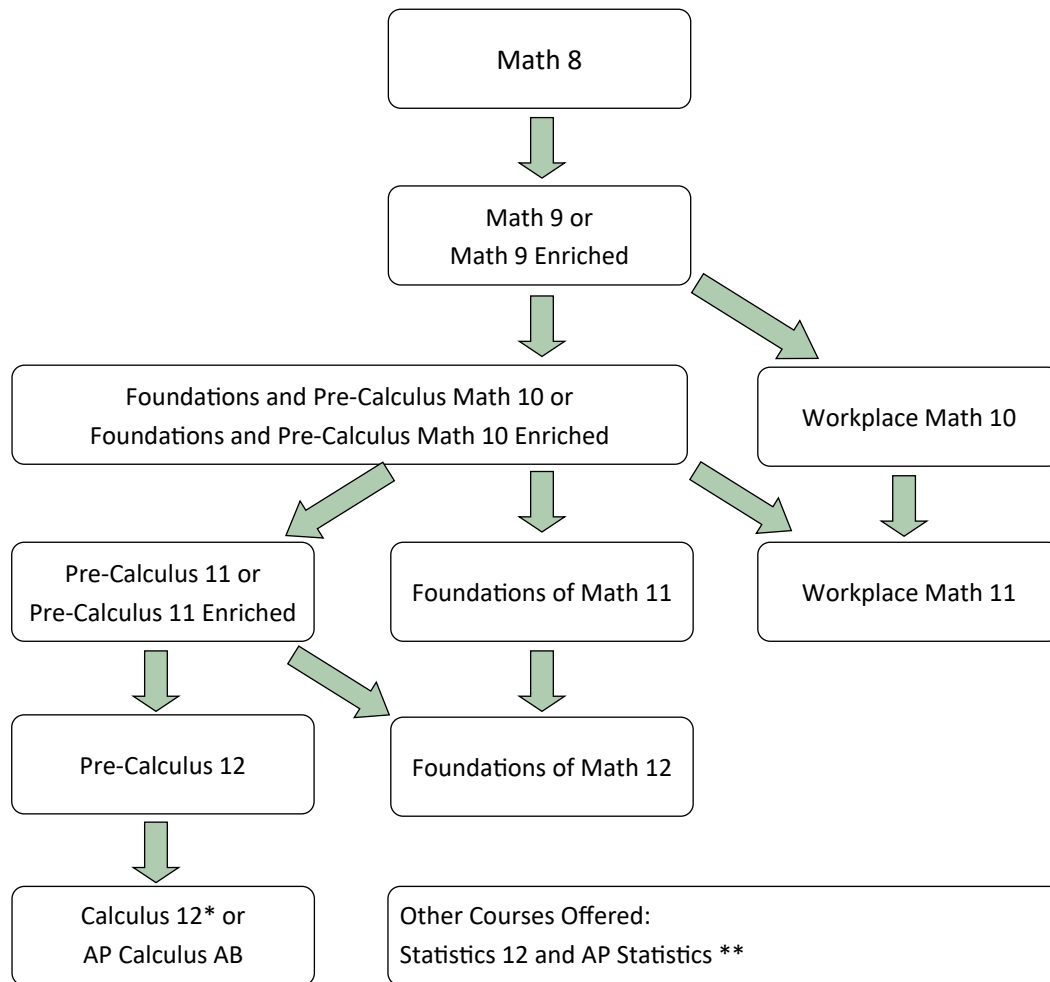
Grad. Requirement: any grade 10 math course <u>and</u> any grade 11 or grade 12 math course

*Calculus 12 may be taken concurrently with Pre-Calculus 12

**Statistics 12 and AP Statistics can be taken any time after completing English 10 and Math 10.

ENRICHED MATHEMATICS

- **WHAT IT IS:** Enriched classes follow the same curriculum as regular classes, however they move at a faster pace so there is more time for enrichment. Enrichment could look like extra projects, additional puzzles or games, practice for math contests, or learning extra topics outside of the B.C. curriculum.

  Students will be formally assessed on the same content as in a regular math class. The "enriched" title will not show on the students' official transcript.

- **HOW TO APPLY:** During course selection, choose the enriched class you would like to be considered for.

  Applicants are selected based on academic achievement, work habits, interest in enrichment activities, and participation in extra-curricular activities such as math contests and math challengers. Note: All students will be considered (i.e. current enriched students do not get priority).

ADVANCED PLACEMENT

- **WHAT IT IS:** we offer two advanced placement courses in mathematics— AP Calculus AB and AP Statistics. These are rigorous academic courses that are taught at a university/college level. If students take an advanced placement course, they have the opportunity to write the AP exam in May each year. If they score high enough on the exam, they can earn college/university credit for the course.

- **HOW TO APPLY:** During course selection, choose the advanced placement class you'd like to take. If we don't have the space to take all students, we will select based on academic performance, work habits, teacher recommendation, and grade (priority will be grade 12 since this is their final year).

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REDESIGNED CURRICULUM

About 5 years ago, B.C.'s curriculum was re-designed for all subject areas. The largest change to the curriculum in math is that there will be more emphasis on developing skills (called curricular competencies) in addition to content knowledge.

These competencies reflect the "do" in the know-do-understand model of learning.

In order to develop these competencies, students must engage in authentic tasks that connect learning to the real world.

The curricular competencies in math:

Understanding & Solving	Communicating & Representing	Reasoning & Analyzing	Connecting & Reflecting

You can find more curriculum information here:

https://curriculum.gov.bc.ca/curriculum/mathematics

ASSESSMENT

Students will be given individual feedback on their demonstration of the curricular competencies in class and on report cards. As of 2023, there is a new reporting order for the province:

- In grades 10 — 12, report cards will look more traditional with a percentage, a letter grade, and an individual comment on student learning.
- In grades 8 — 9, students will be given feedback using the 4-point proficiency scale shown below. There will also be an individual comment on student learning.

Emerging	Developing	Proficient	Extending
Initial or limited proficiency	Partial proficiency	Adequate proficiency	Sophisticated proficiency

You can find more assessment information here:

https://curriculum.gov.bc.ca/curriculum/mathematics

PATHWAYS IN MATH 10 - 12

Courses in grades 10 - 12 are organized into 3 pathways. Each is designed to provide prerequisite attitudes, knowledge, and skills for specific post-secondary programs or for direct entry into the work force. When choosing a pathway, students need to consider their math ability, course load, interests, and future plans.

To graduate, students must complete a grade 10 mathematics course, as well as a math course at the grade 11 or 12 level.
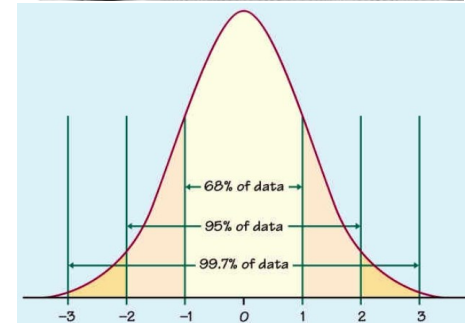
Example future plans for each pathway:

WORKPLACE MATH:
- Technical school
- Most trade school programs
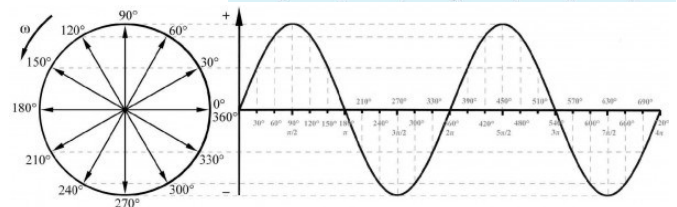- Direct entry into the workforce

FOUNDATIONS MATH:
- Social sciences
- Humanities
- Fine arts
- Communication & Technology

PRE-CALCULUS:
- Sciences
- Math
- Applied Sciences (e.g. Engineering)
- Quantitative Commerce Programs (e.g. SFU, UBC)

*If you are interested in a specific program, please check the entrance requirements BEFORE making a pathway choice.