

Choosing the Right Math Courses in High School

Not all students have the same needs or goals. In high school, students are able to choose the math courses that will help them on the path to their future.

With the current math curriculum, we have two “Academic Options” for our students - and both open different university doors.

Math 30-1 focuses on the development of math concepts needed for programs that will require Calculus (Math 31)

Math 30-2 emphasizes academic skills that are not calculus-based, such as statistics.

NOTE:

We have become so used to the language that the –2 (dash 2) stream has been viewed as a “lower level”, but, in math, **THIS IS NOT THE CASE!**

While this is a quick reference guide, specific admission requirements may vary by institution.

It is very important that students consult with their guidance counsellors as well as their parents and math teachers when choosing their courses.

For further information on specific post-secondary programs:

AB Education - Math Courses - Parent Information

<http://bit.ly/abedmathparent>

ALIS (Alberta Learning Information Service)

<http://alis.alberta.ca/index.html>

Alberta Innovation and Advanced Education

<http://eae.alberta.ca/planning.aspx>

Apprenticeship and Industry Training

<http://tradesecrets.alberta.ca/>

Medicine Hat College <https://www.mhc.ab.ca/>

University of Lethbridge <http://www.uleth.ca/>

University of Calgary <http://www.ucalgary.ca/>

University of Alberta <https://www.ualberta.ca/>



Eagle Butte High School

For further information regarding math courses at EBHS, please contact your guidance counselor or any of the following math teachers:

Tenelle Brost 403-528-1996 ext 2008
tenellebrost@prrd8.ca

Elizabeth Gebhardt 403-528-1996 ext 2022
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Choosing the Right Math Path For You



*Math Department,
Eagle Butte High School*

Mathematics –1

(Pre-Calculus/Calc Prep)
Prerequisite: Math 10C

Who should take this course sequence?

- π Mathematics –1 is designed for students who plan to apply for post-secondary programs that may require calculus skills.
- π Students who plan to enter a post-secondary program such as engineering, mathematics, sciences, or other programs that require advanced math skills.
- π Math 30-1 is a co-requisite for Math 31 and may be required for post-secondary calculus courses.

In Mathematics –1, you will:

- π study the concept of function in-depth, including quadratic, radical, polynomial, rational, trigonometric, exponential, and logarithmic functions.
- π extend your knowledge of trigonometry to include Sine and Cosine Laws to solve any triangle.
- π be introduced to counting techniques involving permutations and combinations; these are the basis for the Binomial Theorem, which has important applications in the areas of calculus and statistics

Some Related Careers Include:

- π Engineering, Kinesiology, Dentistry, Dental Hygiene, Optometry, Pharmacy, Chiropractic, Medicine, Veterinary Medicine, Education (Math/Science Majors)

Ask us about Math 10 Prep/Math 15

This is a great option for many students considering Math 10C.

Mathematics –2

(Foundations of Math/General Prep)
Prerequisite: Math 10C

Who should take this course sequence?

- π Mathematics –2 is designed for students who plan to attend university, college, or a technical institute after high school, but do not need calculus skills.
- π Students who plan to enter post-secondary programs in fields such as arts programs, civil engineering technology, medical technologies, and/or some apprenticeship programs
- π Many nursing programs recommend that students have taken –2 math because of the related statistics topics.
- π **This sequence will fill most high school students' needs.**

In Mathematics –2, you will:

- π develop logical reasoning techniques, including inductive and deductive reasoning
- π study a variety of relations and functions, both graphically and algebraically, including quadratic, radical, polynomial, rational, sinusoidal, exponential, and logarithmic functions
- π extend your knowledge of trigonometry to include Sine and Cosine Laws to solve any triangle
- π will be introduced to counting techniques involving permutations and combinations
- π will complete a math research project involving the collection and analysis of data in a mathematical area of interest in both Math 20-2 and 30-2

Some Related Careers Include:

- π Nursing, Paramedic, Journalism, Pre-Law, Social Work, Education (Arts Majors), Business Administration, Computer Aided Drafting, Power Engineering, Environmental Science, Speech-Language Pathologist

Mathematics –3

(Workplace Math/
Prep for Some Trades)
Prerequisite: Math 10–3

Who should take this course sequence?

- π Mathematics –3 is designed for students who want to learn the math needed to enter most trades or want to enter the workforce after high school
- π Most apprenticeship training programs will recommend students successfully complete Math 30-3.
- π However, a small number of apprenticeship programs may require students to complete the –2 course sequence in order to meet mathematics entrance competencies for those trades

In Mathematics –3, you will:

- π use SI and imperial measures and apply them in 2-D and 3-D situations
- π extend your knowledge of trigonometry to include Sine and Cosine Laws to solve problems
- π learn and apply spatial, proportional, and logical reasoning to solve problems
- π explore financial topics including personal finance and basic small business operations
- π apply basic statistics and probability concepts to solve problems

Some Related Careers Include:

- π Baker, Bricklayer, Cabinetmaker, Cook, Hairstylist, Automotive Service Technician, Insulator, Welder, Parts Technician, Autobody Technician, Locksmith