## Utah High School Mathematics Graduation Pathways

The Utah High School Mathematics Graduation Pathways shows the different progressions available to high school students as they register for classes. It shows several paths for not only being ready to meet the QL requirement in college, but possibly satisfying the requirement while still in high school.

## Foundation Courses

## Secondary Math I

- Linear and Exponential Functions
- Congruence
- Descriptive Statistics


## Secondary Math II

- Quadratic Functions
- Similarity
- Right Angle Trigonometry
- Conditional Probability


## Secondary Math III

- Polynominal, Rational, and Radical Functions
- Trigonometry CHOICE
- Logarithms
- Data Collection and Analysis


## Extended Topics*

Includes Foundation Course Material

## Secondary Math I Plus

- Matrices
- Vectors


## Secondary Math II Plus

- Depth in Complex Numbers
- Trigonometric Identities
- Conic Sections


## Secondary Math III Plus

- Composition of Functions
- Inverse Functions / Trig Functions
- Polar Coordinates
- Arithmetic and Geometric Series


## Additional Courses

(Prerequisite: Secondary Math III)

- Math 1010
- College Prep Math
- Pre-Calculus*
- Calculus

These courses do not provide QL Credit

| Quantitative <br> Reasoning | Statistics | College Algebra <br> \& Trigonometry | Calculus |
| :---: | :---: | :---: | :---: |
| Math 1030 | Math 1040 OR <br> AP Statistics | Math 1050 and <br> Math 1060 | AP Calculus AB OR <br> AP Calculus BC OR <br> Math 1210/1220 |
| College Mathematics Credit <br> (Prerequisite: Secondary Math III) |  | College Mathematics Credit <br> (Prerequisite: Pre-Calculus*) |  |

* Taking all three Extended courses is equivalent to taking Pre-Calculus


## Frequently Asked Questions

## Which pathway is best for me?

The pathways are intended to guide you to make decisions based on your interests. If you have an idea of what you might want to eventually major in, you can choose the pathway that is heading toward the math class needed in that major.

## What does "Extended Topics" mean?

These classes include all the topics in the Secondary Math class, plus some additional topics from Precalculus. To take Calculus in high school you need to have taken Precalculus, usually by choosing the Extended Topics classes (although there is also a stand-alone Precalculus class that will satisfy the pre-requisite).

## What's the difference between Math 1050 and Math 1060 versus Precalculus?

Math 1050 and Math 1060 have most of the same topics as Precalculus, but they are Concurrent Enrollment classes. Most students take Math 1050 and Math 1060 because they want to take Calculus from a university the following year, and 1050 also satisfies the QL requirement for a bachelor's degree. Precalculus is a high school class and doesn't award college credit, but it is a challenging and enriching class that will also prepare you for Calculus the following year.

## Can I skip steps on the chart?

If you skip a step on the chart you may not be ready for the next class, so it is never advised students to skip classes. Some schools offer summer classes if you want to take more math classes.

## Am I stuck on the path that I'm on?

No! We know that students change their minds, so if you want to register for Secondary Math II Extended after finishing Secondary Math I (for example), you can, as long as by the time you are registering for the College Mathematics Credit classes you have met the prerequisites.

## Why is Math 1010 not in the same box as the other college math classes?

Math 1010 doesn't give you the QL math credit you need for a bachelor's degree. It is a great class for students who have already finished Secondary Math I, II, and III but don't qualify to take any of the QL classes because of grades or placement test requirements.

## What is the purpose of the Alternative Selections?

The Alternative Selections can be taken in addition to Secondary Math I, II, and III if you are interested in that particular topic. They aren't intended to prepare you for the College Mathematics Credit classes.

## Can I opt out of Secondary Math III?

You are allowed to take one of the Alternate Selections in place of Secondary Math III and still receive a high school diploma. This is not usually recommended, since the Alternate Selections are not meant as preparation for any of the College Mathematics Credit courses.

