

# Mathematics

- 6 credits of math are required for graduation. *3 years*
- Students must satisfy each of the standards listed below for graduation.
- Students may be dropped from the B section of a course if they have not successfully completed the A section.
- TI-30X IIS scientific calculator is recommended for Algebra, Applied Statistics and Probability, Basic Algebra, Basic Geometry, Geometry, Honors Geometry, and Technical Math.
- TI-83 or TI-84 graphing calculator is recommended for Advanced Algebra, Advanced Math, Honors Advanced Algebra, Honors Advanced Math, and Trigonometry.

① **Algebra Standard** (1 course required for graduation.)

- Basic Algebra 9 A & B
- Basic Algebra 10-12 A & B
- Algebra A & B
- Advanced Algebra A & B
- Honors Advanced Algebra A & B
- Advanced Math A & B
- Honors Advanced Math A & B
- Applied Algebra and Geometry

② **Geometry Standard** (1 course required for graduation)

- Basic Geometry A & B
- Geometry A & B
- Honors Geometry A & B
- Applied Algebra & Geometry

③ **Statistics & Probability Standard** (1 course required for graduation)

- Applied Statistics & Probability
- Advanced Algebra A & B
- Honors Advanced Algebra A & B

| Course #             | Course Title                          | Prerequisite  | Grade(s)      |
|----------------------|---------------------------------------|---|---------------|
| A-100001<br>B-100002 | Advanced Algebra A & B                | Geometry A & B or<br>Basic Geometry A & B with teacher approval   | 10, 11, 12    |
| A-101001<br>B-101002 | Advanced Math A & B                   | Advanced Algebra A & B  | 10, 11, 12    |
| 101501               | Advanced Placement<br>Calculus A      | Advanced Math A & B (Trigonometry is recommended)<br>Students must possess a 3.25 cumulative GPA<br>or register by petition to committee. | 11, 12        |
| 101502               | Advanced Placement<br>Calculus B      | Advanced Placement Calculus A   | 11, 12        |
| 101503               | Advanced Placement<br>Calculus C      | Advanced Placement Calculus B   | 11, 12        |
| A-102001<br>B-102002 | Algebra A & B                         | None  | 9             |
| 102201               | Applied Algebra and Geometry          | None  | 11, 12        |
| 102300               | Applied Statistics and<br>Probability | Basic Algebra A & B or Algebra A & B  | 11, 12        |
| A-102501<br>B-102502 | Basic Algebra 9 A & B                 | None  | 9             |
| A-102511<br>B-102512 | Basic Algebra 10-12 A & B             | None  | 10, 11, 12    |
| A-102601<br>B-102602 | Basic Geometry A & B                  | Algebra A & B or<br>Basic Algebra A & B   | 10, 11, 12    |
| A-103001<br>B-103002 | Geometry A & B                        | Algebra A & B, or<br>Basic Algebra A & B with teacher approval  | 9, 10, 11, 12 |
| A-103301<br>B-103302 | Honors Advanced Algebra<br>A & B      | Honors Geometry A & B or Geometry A & B with teacher<br>approval  | 10, 11, 12    |
| A-103701<br>B-103702 | Honors Advanced Math<br>A & B         | Honors Advanced Algebra A & B or Advanced Algebra A<br>& B with teacher approval  | 10, 11, 12    |
| A-104001<br>B-104002 | Honors Geometry A & B                 | Algebra A & B   | 9, 10, 11, 12 |
| 108000               | Trigonometry                          | Advanced Math A & B   | 11, 12        |

# Mathematics

The following chart provides a guide regarding the next math class a student should register for based on if they passed, struggled or failed their current math class. If students have any questions, please contact a mathematics teacher for recommendations.

The Mathematics course that you should register for should be based on the following:

| Current Math Class           | Passed                      | Struggled                   | Failed                      |
|------------------------------|-----------------------------|-----------------------------|-----------------------------|
| Basic Algebra 9              | Basic Geometry              | Basic Geometry              | Basic Algebra 10-12         |
| Basic Algebra 10-12          | Basic Geometry              | Basic Geometry              | Technical Math              |
| Algebra                      | Geometry                    | Basic Geometry              | Basic Algebra 10-12         |
| Applied Algebra and Geometry | Applied Stats & Probability | Applied Stats & Probability | Applied Algebra and Geo     |
| Basic Geometry               | Applied Stats & Probability | Applied Stats & Probability | Basic Geometry              |
| Geometry                     | Advanced Algebra            | Applied Stats & Probability | Basic Geometry              |
| Honors Geometry              | Honors Advanced Algebra     | Advanced Algebra            | Geometry                    |
| Applied Stats & Probability  | Applied Algebra and Geo     | Applied Algebra and Geo     | Applied Stats & Probability |
| Advanced Algebra             | Advanced Math               | Applied Stats & Probability | Applied Stats & Probability |
| Honors Advanced Algebra      | Honors Advanced Math        | Advanced Math               | Advanced Algebra            |
| Advanced Math                | Trig or AP Calculus         | Trigonometry                | Advanced Math               |
| Honors Advanced Math         | Trig or AP Calculus         | Advanced Math or Trig       | Advanced Math               |
| Trigonometry                 | AP Calculus                 | AP Calculus                 | Trigonometry                |
| AP Calculus                  | PSEO                        | PSEO                        | AP Calculus                 |

## Advanced Algebra A & B

A 100001 B 100002

2 Terms                      2 Credits  
 Grades 10, 11, 12

\*Students must register & complete A & B to receive both credits.

Prerequisite: Geometry A & B or Basic Geometry A & B with teacher approval.

Standard: Statistics & Probability 9-11 & Algebra 9-11

Course Description: This course is designed to challenge the student's algebraic, statistical and probability skills. The course will focus on functions and their relationships. Other major mathematical topics include sequences and series, matrices and determinants, trigonometry, statistics, and probability. A strong background in algebra is essential to succeed in this class. It is recommended that students purchase their own graphing calculator to use at home. A fee may be required for a workbook.

## Advanced Math A & B

A 101001 B 101002

2 Terms                      2 Credits  
 Grades 10, 11, 12

\*Students must register & complete A & B to receive both credits.

Prerequisite: Advanced Algebra A & B.

Standard: Algebra 11-12

Course Description: The advanced mathematics course is designed for students who plan to pursue a college education. Students should check with their counselor concerning requirements for their post-high school training. The course is a continuation of those high school topics leading into calculus. These topics include various types of functions, use of statistics, a development of trigonometry and exercises in probability. Students will use graphing calculators to enhance understanding and to aid in problem solving. **It is strongly recommended that students purchase their own graphing calculator.** The course is designed for those planning a career where mathematics is crucial.