

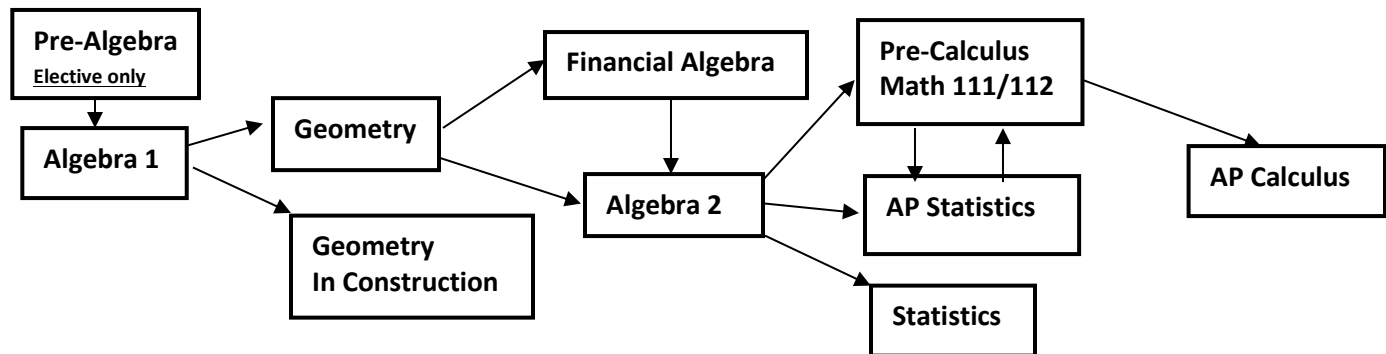
Mathematics

In each year of high school, we want our students to learn to reason and communicate mathematically, become better problem-solvers, value mathematics and gain confidence in their ability to use the mathematics they are learning. The sequence of courses we offer is intended to allow students to be successful and yet be challenged as much as their level of achievement will allow.

The Crook County School District requires each high school graduate to earn three credits in high school math courses. This means students will take math their first three years at CCHS. **College bound students should keep in mind that Oregon four year public colleges and universities require three credits of math which must include Algebra 2, with grades of a "C-" or higher. It is also highly recommended that students planning for college take a math course their senior year.** Students who earn a "D" in a math class still earn credit, but may struggle in future math classes. The Math Department staff recommends, for success in math, students repeat the course if they earn a "D".

To be fully prepared for the SAT/ACT math test and for Common Core State Standards testing (Smarter Balance), students should have completed either Financial Algebra or Algebra 2.

The diagram below illustrates the sequence of courses:



Crook County High School Mathematics Sequence:

The CCSD Math curriculum addresses the essential skills that will be required for graduation from high school. These include: applying mathematics in a variety of settings, thinking critically and analytically, using technology and personal management and teamwork skills. The curriculum stresses mastery of basic skills and procedures, understanding of mathematical principles and problem-solving. Students improve their study skills and build life-long strategies for solving problems that are applicable in most academic disciplines, the workplace and daily life. Each course is built around core ideas that are aligned to the Common Core State Standards for Mathematics. The CCHS Mathematics Sequence includes the following courses: Algebra 1, Geometry, Algebra 2, Financial Algebra, along with Algebra 1 Support, Geometry Support and Math Workshop. The Support classes and Math Workshop are designed to help students have success in math and to meet their graduation requirements.

Additional information you should know:

1. Students enrolled in Crook County High School must complete three math credits as part of the district graduation requirements.
2. Students are required to complete three years of math in high school with the content at the Algebra 1 level or above.

3. The Oregon State System of Higher Education (OSSHE) for four-year colleges and universities requires three credits of math for admission. This is to include 2 years beyond Algebra 1 with grades of "C-" or higher.
4. In all courses it is recommended that students have their own scientific calculator but it is highly recommended students in Algebra 2 and above have a TI-83, TI-84 graphing calculator.
5. Students who earn an F in a math course will be required to repeat the course before being allowed in the next math sequence.
6. Students who have a history of struggling in math may be enrolled in a Support class to ensure they receive the help necessary to earn math credit.
7. Students who have not met the Oregon State Graduation Requirement of passing their Math OAKS test with a minimum score of 236 or have not met the CCSS Smarter Balanced cut score (Class of 2016 and above), will be placed in Math Workshop. This class is designed to help students meet this requirement by completing math work samples.

Course Title	Prerequisite	Grade Level	Length of Course	Credits Per Year	Meets Graduation Requirement in:
Math Workshop	Does not meet 11th grade SBAC	12	Until 2 work samples passed	*See below	MA, EL *See below

This class is designed to help students become better math students by teaching test-taking skills (SMARTER BALANCE, SAT, ACT), use of hands-on materials, problem-solving skills, math computation skills and math work samples for their portfolios.

- *.5 Math credit earned if student meets specified standards.
- .5 Elective credit will be earned if class is repeated

Algebra I	None	9	2 semesters	1.0	MA, EL, NCAA
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Topics include solving and graphing linear and quadratic functions, systems of equations, inequalities, proportions, rational expressions and statistics. Problem solving is incorporated into each topic of study.

Geometry	Algebra I	9-10	2 semesters	1.0	MA, EL, NCAA
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This course is a study of geometric figures and their properties through theorems and postulates. Areas of study include two and three-dimensional geometry, right triangle trigonometry and coordinate geometry as each relates to 10th grade state standards. Second semester includes an in-depth study of Quadratic Functions.

Honors Geometry	Algebra I with a B grade or higher & teacher approval	9-10	2 semesters	1.0	MA, EL, NCAA
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This course moves through geometry topics at a faster pace with in-depth problem solving and emphasis on a conceptual understanding of geometry.

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Course Title	Prerequisite	Grade Level	Length of Course	Credits Per Year	Meets Graduation Requirement in:
Geometry in Construction	Algebra 1 Good Attendance	10-12	1 Year	1.0 1.0	MA, EL CTE, EL

Geometry in Construction will teach the relevance of geometry through the building of real world pre-fabricated construction project (tiny home, tough shed, etc.). It is highly recommended for students interested in engineering, architecture, or construction. A math teacher and CTE teacher partner together to teach the geometry objectives through fabrication. Students must enroll for one period geometry and one period manufacturing and will be assigned a two-hour block. Students receive one math credit **and** one CTE/elective credit.

Financial Algebra	Geometry	10-12	2 semesters	1.0	MA, EL
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This course is an overview of fundamental advanced algebraic concepts. The class focuses on introductory-level algebraic relationships, quadratics, conic sections, polynomial, rational, logarithmic, exponential functions and the six trigonometric functions. Students will move on to Algebra 2 with successful completion of this class.

Algebra 2	Geometry with a grade of "C" or higher	10-12	2 semesters	1.0	MA, EL, NCAA
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This class is required for all college-level math classes, pre-calculus and AP level classes, and to attend a four-year university. Algebra 2 focuses on parent functions, quadratics, polynomials, rational and radical functions

Algebra 2 Honors	Geometry or Geometry Honors with a grade of "B" or higher and teacher approval	10-12	2 semesters	1.0	MA, EL, NCAA
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This class is a college prep class and is required for college math classes, pre-calculus and AP level classes and to attend a four-year university. Algebra 2 Honors is an overview of advanced algebraic concepts. Algebra 2 Honors is the stepping stone to college-level mathematics. This class focuses on higher level algebraic relationships, quadratic, polynomial, rational, radical, logarithmic and exponential functions. Students in this class are expected to handle a faster-paced class that will cover more topics than Algebra 2.

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Course Title	Prerequisite	Grade Level	Length of Course	Credits Per Year	Meets Graduation Requirement in:
Pre-Calculus/ Math 111,112	Algebra 2 with a grade of "C" or higher or teacher recommendation	11-12	2 semesters	1.0 *See below	MA, EL, NCAA, HD

***Dual credit option from OIT: MTH 111 and 112; 4 credits each; \$ course fee: \$25 per credit for total of \$200**

Pre-Calculus includes the advanced study of polynomial, logarithmic, exponential and rational functions and their graphs, vectors, set theory, mathematical induction, matrix algebra, sequences and series, limits and continuity, transformations of trigonometric functions, polar coordinates and circular trigonometry, using identities and real-world applications of the functions and their properties.

AP Calculus	Pre-calculus	12	2 semesters	1.0 Math *See below	MA, EL, NCAA, HD
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***Dual Credit option from OIT: MTH 251 and 252; 4 credits each; \$ Course fee: \$25 per credit for total of \$200**

***College credit may be earned through the AP exam which is administered in May. \$ There is an AP exam fee**

This course is designed to review and continue the study of in-depth topics covered in prerequisites and introduces students to Calculus concepts: trigonometry, graphing, functions, logs and exponents, limits, derivatives and integrals. A major emphasis will be on applications of calculus to other areas of study.

AP Statistics	Grade of B or higher in Algebra 2 AND teacher recommendation	11-12	2 semesters	1.0 Math *see below	MA, EL, NCAA, HD
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***Dual Credit option from OIT: MTH 243; 4 credits each; \$ Course fee: \$25 per credit for total of \$200**

***College credit may be earned through the AP exam which is administered in May. \$ There is an AP exam fee**

This college level introductory course in Statistics is designed to prepare you for the AP Statistics Exam. The exam is three hours long and consists of multiple-choice questions (50%), short answer open-ended questions (37.5%), and one long-answer investigative problem (12.5%) covering four main topics: exploring data, planning studies, probability theory and inferential reasoning. Doing well on this exam can mean earning college credit. Some activities and assignments are designed for developing concepts and understanding, while others focus on improving the way you communicate statistical knowledge. Students will frequently work on projects involving hands-on gathering and analysis of real world data. Students will use both graphing calculators and personal computers for analysis.

Intro to Statistics	Algebra 2	11-12	2 semesters	1.0 Math *see below	MA, EL, NCAA, HD
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This introductory course in statistics is designed for students who are ready to challenge themselves in upper level mathematics. In this course, we cover four main topics broken up into twelve chapters: exploring data, planning studies, probability theory and inferential reasoning. Most activities and assignments are designed for developing concepts and understanding, while others focus on improving the way you communicate statistical knowledge. Students will also partake in a final project involving hands-on gathering and analysis of real-world data. Students will use both graphing calculators and computers for analysis.