

Topics of Modern Math

Learning begins today. We can't change yesterday. But together, we can know where learning begins today and chart the best course toward the brightest possible tomorrow.

Sunrise Mountain High School 2575 Los Feliz St. Las Vegas, NV 89156

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Course Scope:

This one-year course provides students with the necessary knowledge and skills for further studies in mathematics. It is intended to increase mathematical fluency in problem solving, reasoning, modeling, and effective communication in the study of numbers, algebra, functions, and statistics. Instructional practices incorporate integration of diversity awareness, including appreciation of all cultures and their important contributions to society. The use of technology, including calculators and computer software, is an integral part of this course. This course fulfills the Algebra I requirement and one of the mathematics credits required for high school graduation.

Course Goals:

- 1. To develop the Standards for Mathematical Practice. [CCSS]
- 2. To extend the properties of exponents to rational exponents and use properties of rational and irrational numbers. [CCSS: N.RN]
- 3. To reason quantitatively and use units to solve problems. [CCSS: N.O]
- 4. To interpret the structure of expressions and write expressions in equivalent forms to solve problems. [CCSS: 8.EE*; A.SSE]
- 5. To perform arithmetic operations on polynomials. [CCSS: A.APR]
- 6. To create equations that describes numbers or relationships. [CCSS: A.CED]
- 7. To understand solving equations as a process of reasoning and explain the reasoning; solve equations and inequalities in one variable; solve systems of equations; and represent and solve equations and inequalities graphically. [CCSS: 8.EE*; A.REI]
- 8. To understand the concept of a function and use function notation; interpret functions that arise in applications in terms of the context; and analyze functions using different representations. [CCSS: 8.F*; F.IF]
- 9. To build a function that models a relationship between two quantities; and build new functions from existing functions. [CCSS: 8.F*; F.BF]
- 10. To construct and compare linear, quadratic, and exponential models and solve problems; and interpret expressions for functions in terms of the situation they model. [CCSS: F.LE]
- 11. To summarize, represent, and interpret data on a single count or measurement variable; summarize, represent, and interpret data on two categorical and quantitative variables; and interpret linear models. [CCSS: S.ID]
- 12. To investigate patterns of association in bivariate data. [CCSS: 8.SP*]
- 13. To understand congruence and similarity using physical models, transparencies, or geometry software. [CCSS: 8.G*]

Course Structure:

- First Quarter: Functions, Piecewise Functions, Inverse Functions, Quadratics, Scatterplots
- **Second Quarter**: Polynomials, Polynomial Graphs, Applying Polynomial Functions, Radical Functions, Applying Radical Functions
- *Third Quarter*: Rational Functions, Exponential Functions, Logarithms
- *Fourth Quarter*: Trigonometry, Angles, Graphing Trigonometric Functions, Trigonometric Identities, Data Distribution

Textbook(s):

• There will not be a textbook required.

Mountain Mindset:

These are the four core principles that will make you a successful student at Sunrise Mountain High School and it is our hope that development of these character traits will help Sunrise Mountain students be successful in all of their future endeavors.

- Show **RESPECT** for your community, school, family, peers, and most importantly YOURSELF.
- Demonstrate KINDNESS.
- **COMMIT** to education for your future.
- **PERSEVERE** Climb YOUR mountain!

Grading:

Sunrise Mountain High School has adopted a school-wide grading system of utilizing a modified version of the Minimum F. All grades will be calculated and entered into the grade book with the lowest possible score being 50% of the total points, provided an effort has been made and the assignment has been turned in to the teacher. IF an assignment is missing for any reason (refused to complete the assignment, absent, etc....) the grade will be entered into the gradebook as a "0%". The teacher will allow the student to make-up the assignment and the new grade will replace the "0%". IF the student does not make-up the assignment, the grade of "0%" will remain in the gradebook. All assessments in a class will be entered into the grade book under two different categories as follows: Formative, 20% of the quarter grade and Summative, 80% of the quarter grade. Teachers will determine into which category (formative or summative) graded activities will be placed. Typically, formative assessments are activities such as homework, classwork, journal entries, short quizzes, etc. which are used on a daily basis to measure students' progress toward mastery of standards; whereas, summative assessments are activities such as unit tests, embedded assessments, research papers/projects, performances, etc... which are used at the end of a unit of study to measure students' mastery of standards.

Semester Grades:

- 40% first/third nine weeks
- 40% second/fourth nine weeks
- 20% semester/final exams

Quarter and semester grades will be issued in keeping with the CCSD Grading Scale as follows:

- A = 100 90
- B = 89 80
- C = 79 70
- D = 69 60
- F = 59 and below

Grade Access:

Parents and students may access grades at any time using the Infinite Campus Portal. Grades will be accurate in real time as teachers input assessments into their grade books.

Academic Dishonesty:

Academic dishonesty will not be tolerated. If a student is caught cheating on any assignment, a Minimum F will be issued. During a test or quiz, talking is considered as cheating and the grade will result in a Minimum F. Students caught cheating will also be referred to the Deans' Office for additional behavior consequences.

Supplies:

- Notebook
- Pencil

Tardiness, Make-up Work and Late Work:

- Tardy Policy (School Wide): Tardy lock-outs occur every period, every day. You must be in class BEFORE the late/tardy bell. Students who are late to class will be sent to the deans' office to get a tardy pass and the following disciplinary actions will be enforced if you are tardy to class: 1st Tardy Deans' Detention (After School). Failure to attend Deans' Detention will result in Required Parent Conference (RPC) before returning to school.
 - 2nd Tardy Required Parent Conference (RPC). Parent must come to meet with deans' office before returning to school.
 - Additional Tardy Required Parent Conference (RPC).
- Make-up Work (School Wide): Students need to make arrangements with their teacher after an absence to obtain and complete missing work.
- Late Work (School Wide): In order to ensure student mastery and success, students are permitted, encouraged and should, turn in all work, including late work. Students who do not turn in their work will be assigned an academic detention. A 10% reduction in points will be assessed on all late assignments not completed in academic detention.

Progressive Discipline Policy:

- First Offense: Verbal Warning
- Second Offense: Written Warning
- Third Offense: Seat Reassignment/ Phone call home
- Fourth Offense: Guidance Referral (May result in Parent Teacher conference)
- **Fifth Offense:** Dean's Referral

Student Conduct:

- Respect the rights of others and accept the responsibility for your own behavior.
- Participation in class activities should be done politely and cooperatively.
- Be in class on time and be fully prepared to work.
- All school regulations will be enforced at all times.
- Be reasonable. The way you treat people is usually the way they will treat you.
- Request corridor passes during class transition times, not during instruction.
- Assist in creating a respectful classroom vibe. Do not distract your classmates. Like you they need to pay attention to learn.

Policies/Procedures:

- Upon entering classroom take out necessary materials for class and be seated before bell rings
- Class dismissal follow your teacher's instructions
- Electronics secure in safe place (out-of-sight) before tardy bell rings
- Food & Drink only water in classroom
- Dress & attire follow school code or a hall monitor will be called

Sunrise Mountain High School Commitment Contract

- 1. I have read the information contained in this document.
- 2. I agree to follow the rules and guidelines of the Clark County School District and Sunrise Mountain High School.
- 3. I agree to follow all behavior guidelines for students.
- 4. I agree to make the commitment to work as hard as possible to become the best student I can be.
- 5. I understand that violations of the rules described herein may result in meeting with the teachers, detention, parent conference, and/or Deans' Office referral.

Name of Student: (please print)
Signature of Student
Student E-mail Contact
Name of Parent/Guardian (please print)
Signature of Parent/Guardian
Parent/Guardian E-mail Contact
Primary language spoken in the home: English / Spanish / Other