



# AP Statistics

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.

**Mr. Stephen McDonald Room 815 [semcdonald@interact.ccsd.net](mailto:semcdonald@interact.ccsd.net) 702-799-7207 x-3709**  
**Sunrise Mountain High School**  
**2575 Los Feliz St. Las Vegas, NV 89156**

## Course Scope:

This one-year Advanced Placement course is intended for students who are preparing for further study in disciplines requiring statistical course work. This course includes describing patterns in data and departures from patterns, planning and conducting a statistical study, exploring random phenomena using probability and simulation, estimating population parameters, and testing statistical hypotheses. The use of technology, including calculators and computer software, is an integral part of this course. This course is intended to prepare students for taking the Advanced Placement Examination in Statistics. This course will fulfill one of the mathematics credits required for high school graduation.

## Course Goals:

- To understand and use the basic vocabulary and notation of probability and statistics.
- To summarize sets of univariate and bivariate data by center, variability, shape, location, and unusual features.
- To construct and analyze sets of data, tables, and graphs using statistical techniques.
- To design and conduct unbiased experiments and surveys.
- To use results of simulations to represent or predict events and compare experimental results with mathematical expectations.
- To describe the characteristics of probability distributions for random variables.
- To study binomial, geometric, Normal, Student's  $t$ , and Chi-square distributions.
- To draw conclusions from data using statistical inference procedures, including confidence intervals and hypothesis tests.
- To gain proficiency in analyzing data using statistical software packages and graphing calculator technology.
- To develop the ability to reason and communicate mathematically in order to apply learned concepts to new problem-solving situations.
- To develop an appreciation of statistics as a field of study applicable to multiple disciplines and be prepared to take the College Board Advanced Placement examination in Statistics at the conclusion of their studies.

## Course Structure:

- First Quarter: Gathering Data (Randomness, Observational Studies and Experiments), Displaying and describing data, Exploring linear relationships and Normal distribution
- Second Quarter: Probability rules, Random variables, Binomial and geometric models and Sampling distributions
- Third Quarter: Inference about means (one, paired, and two sample) and proportions (one and two sample)
- Fourth Quarter: Inference for regression, inference for counts and preparing students for the AP exam

**Textbook(s):**

Stats – Modeling the World, Second Edition - by Bock, Velleman, and De Veaux

**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, 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 / quizzes, 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:**

The following materials will be needed in class:

1. Three Ring Notebook: All homework and seatwork assignments, drills, notes, graded quiz and test papers will be kept.
2. Textbook
3. Two sharpened pencils with erasers: pens will not be accepted. Colored pencils are extremely useful but not required.
4. 8-1/2" by 11" Paper (plain or ruled)
5. Graphing Calculator

**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:  
**1<sup>st</sup> Tardy – Deans' Detention (After School).** Failure to attend Deans' Detention will result in Required Parent Conference (RPC) before returning to school.  
**2<sup>nd</sup> 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:**

Violation of classroom rules will result in the following:

1. Verbal warning
2. Conference with student and phone contact with parent/guardian
3. Detention with teacher and additional teacher consequence
4. Detention with teacher and referral to the Dean Referral

**Student Conduct:**

Students are expected to respect themselves and others, in person and in personal property. Civil manners are also expected. Any disregard of these rules will result in a conversation with the student. Repeated offenses will result in a phone to the student's parent/guardian.

**Policies/Procedures:**

- Students are to come to class equipped everyday with their notebook, paper, and a writing utensil. Only **PENCIL** may be used on assignments, unless otherwise noted. If special supplies are needed I will provide instructions the day before.
- Students are to be in their seat, with their materials ready to begin class by the time the tardy bell rings. The bell does not mean run to class, it means that class has begun.
- The bell **does not** dismiss students from class that is the responsibility of the teacher.
- There is no beauty school practice allowed in class. In other words, no hair combing/brushing, putting on makeup or personal grooming is allowed during educational time.
- Absolutely no gum, food or drink allowed in the classroom. (Water is allowed with a cap on it)
- Personal communication devices are allowed on campus but **cannot** be used during class time.

## 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 and maintain an attitude in accordance with the ***Mountain Mindset***.
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

---

Parent/Guardian Phone Number

---

Primary language spoken in the home: English / Spanish / Other

---