



# Chandler Unified School District

MAT430A Introduction to Statistics

SY 2023-24



## Course Overview

### Course Description

Students will explore how data analysis, strategies in planning a study, probability, and statistical inference. Technology, projects, and cooperative group problem-solving are integral to this course. Students will use the standards for mathematical practice to engage with the subject matter.

### AP/IB/Dual Enrollment

May be offered for Dual Credit.

### Prerequisite/Fee(s)

Precalculus or Algebra 2

### Course Materials

Materials required include:

- A notebook specifically for our class
- A graphing calculator (TI STRONGLY preferred. TI-84 will be demonstrated in class)
- Writing utensils: pencils or dark colored pens and red or other colored pens (for corrections)
- Textbook: Daren Starnes and Josh Tabor. Statistics and Probability with Applications, 3rd Edition

### Adopted Resource(s)

Statistics and Probability with Applications 3rd Ed., Starnes & Tabor (BFW)

*\*An asterisk will indicate a resource containing sexually explicit materials per legislative definitions. CUSD has determined that all resources listed above are of exceptional educational value.*

## Site and Faculty Information

### School name and address:

Hamilton High School, 3700 S Arizona Ave, Chandler, AZ 85248

### Building principal:

Michael Delatorre

delatorre.michael@cUSD80.com

### Teacher:

Julie Howard M.Ed.

howard.julieh@cUSD80.com

**Office hours:** Tuesdays/Wednesdays, 2:30-3:30

## Course Access

This course is taught in-person at Hamilton High School. Students will have access to the curriculum and instruction in the classroom. Google Classroom is the primary location for students to access material when absent from classes taught in person.

## Help

### Academic Support

- Contact the teacher to schedule an appointment during office hours
- [Ed Tech](https://www.cUSD80.com/Page/45109) support for students, parents/guardians, and community link ([cUSD80.com/Page/45109](https://www.cUSD80.com/Page/45109))

### Mental Health Support

- CUSD mental health support [cUSD80.com/Domain/10528](https://www.cUSD80.com/Domain/10528) or 480-573-8808 (talk or text)

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- Suicide & Crisis Lifeline: 9-8-8 hotline
  - 24-hour Crisis Line Talk: 602-222-9444, Text: 741-741

## **Student Conduct, Success, and Responsibilities**

### **Student Handbook**

Students must follow the policies and procedures established in the Student Handbook. Copies of the handbook can be found at [cusd80.com/handbooks](https://cusd80.com/handbooks). Printed copies will be provided upon request.

### **Student Responsibilities**

Class Expectations:

In my class, I expect excellent behavior and participation, including a “community”-type atmosphere where mathematics is discussed and mistakes are made as part of the normal learning process. An atmosphere of mutual respect where you respect my right to teach and I respect your right to learn is required. All school rules and policies are to be followed, but I expect that you demonstrate common sense. There are many occasions where stopping to think before you respond will create a better learning environment for everyone. Since students learn best by being an active participant, it is required that all students participate in all class activities. Profanity is not allowed.

Seek help when you need help. Be an actively engaged learner and ask for help if you are not understanding a concept.

Attendance: Attendance is required during every scheduled class period. The only way a student will be allowed to make up work is if his/her absence was excused through the attendance office. After 9 absences, per semester, a student may be dropped from the class. Student is responsible for watching videos of missed lessons or using notes keys and all work will be due at the assigned times.

Google Classroom: Students will be able to access materials for our class in Google Classroom. Students will only be able to access the materials in Google Classroom by logging in to their school account (\_\_\_@gse.cusd80.com).

Tardies: Any student who is not in their seat prepared to begin working when the late bell rings will be considered tardy, unless they have a signed pass. A referral for Saturday school will be written after 5 tardies.

Classroom Rules and Consequences:

1. Be prepared everyday with pencil and eraser, pen, loose-leaf/notebook paper, binder, and completed homework. It also means that you have taken care of personal business before coming to class.
2. Be respectful to yourself, your classmates and me. This also includes having respect for any property or belongings that are not owned by you personally. No put-downs or cursing.
3. Follow directions the FIRST time they are given. Students are held responsible for all announcements written on the board or given during the class period. These may include any changes or alterations to office hours, homework, etc.
4. During instruction, raise your hand to speak. Enter the room and work quietly.
5. Follow ALL school rules.

The following actions will be taken for violations of any class policies:

1st Offense Warning

2nd Offense Student Conference

3rd Offense Call to your Parent/Guardian

4th Offense Referral to administration

\*Depending on the severity, a referral may occur at any time.

Homework:

Mathematics cannot be understood just by listening, you must work problems yourself, so homework is assigned daily. These problem sets are intended to give repeat exposure to common ideas and techniques in math. Students are encouraged to work together on these assignments although they must

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write up their assignments separately and will work alone for tests.

Students are expected to complete the entire homework daily in order in their homework notebook, check the answers before class, and correct any problems they couldn't figure out how to correct on their own at the beginning of the next class period. Homework should be written neatly in pencil, or with a pen using dark ink. Students will correct their homework in class using a red or bright colored pen. In this way, the difference between what is written at home and the subsequent corrections will be obvious.

A homework quiz will be given 1 or 2 class periods after an assignment is due, allowing students time to master the concepts included on a homework assignment, and then demonstrate mastery on the homework quiz. Most homework grades will be based on homework quiz performance.

**Classroom Notes:**

Students are required to bring a notebook to class, and to take notes using pencil or a dark pen. Students may write as much or as little as they feel is appropriate, but at a minimum, they should always be ready to write down an idea or write the solution to a problem proposed in class.

**Assessments:**

Assessments will be given approximately weekly and they will be cumulative, potentially covering all topics covered in class up to the previous week. Students who are disruptive, who copy from other students, or who are caught using materials that have been forbidden during a test will receive a zero. If a student is absent for an assessment it needs to be made up as soon as possible.

Neatness is encouraged on all homework and tests--if a student's work is illegible, it cannot receive full credit. As with homework, students must show all work--tests are graded not only on correctness but also on the clarity of student's solution.

**Cheating:**

Cheating is not acceptable in my class and consequences will be enforced. Both parties who participate in cheating (including tests, quizzes, homework and/or computer work) will receive a zero on the test or assignment. Any incidents will follow the student conduct guidelines. There are no exceptions.

**Appropriate use of technology:**

CUSD board policy IJNDC-R: The Governing Board intends that technological resources provided by the District be used in a safe responsible and proper manner in support of the instructional program and for the advancement of student learning. It is the policy of the Chandler Unified School District to maintain an environment that promotes ethical and responsible conduct in all electronic resource activities by staff and students. The District reserves the right to monitor use of the District's systems for improper use without warning or prior consent. Students shall be informed that computer files and electronic communications, including email, are not private and may be accessed by the District at any time. Inappropriate use may result in disciplinary action and/or legal action in accordance with the law and Board policy. Please visit the student handbook at <https://www.cusd80.com/handbooks> for further details about appropriate use of technology use.

**Cell Phone Policy:**

Cell phones will only be used when directed by the instructor. Any student caught using a cell phone for other than instructional purposes will have the cell phone confiscated and submitted to Security.

Food and Drink (other than water) is ONLY allowed with permission.

**Communication:**

Students should sign up for my Remind (a free text-based notification app) to receive

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announcements and to directly communicate with the teacher. See codes below to join.  
Parents are also welcome to join.  
3rd hour – Text code @6d6ebk8 to 81010 to join  
4th hour – Text code @443c787 to 81010 to join  
5th hour – Text code @bebgcb to 81010 to join

**Diversity Statement:**

All individuals have a right to an educational environment free from bias, prejudice and bigotry. As members of the Hamilton High School educational community, students are expected to refrain from participating in acts of harassment that are designed to demean another student's race, gender, ethnicity, religious preference, disability or sexual orientation.

**Late work**

**Makeup Work:**

1. The student has an equal number of days to make up any missing assignments, tests, quizzes, or projects equal to the number of days their absences were excused (students will not be reminded that they are missing work).
2. It is the student's responsibility to turn in the missing assignments by the prescribed time, or he/she will receive a zero (this also applies for tests & quizzes).
3. Tests, quizzes, & some class assignments can be made up at after school.

**Late Work:**

Late work will be accepted for half credit, so long as the completed chapter work is submitted by no later than the day before the corresponding chapter test (for example, all Chapter 5 late work must be submitted by the day before the Chapter 5 Test).

**Assessments and Assignments**

Students will complete assessments during each unit of study to assess their understanding. Students will complete the CUSD Common Final at the end of the first and second semesters. The Common Final will count for 20% of the student's final semester grade in grades 9-12 and 10% in grades 7-8 (some exceptions may apply at the Junior High level). Common finals will be in ELA, Math, Science, Social Science, and World Language.

Final exams will be given during the CUSD Jr High/High School Early Dismissal days in December and May, as identified on the [District Calendar](#).

If students are requested to participate in a survey, the survey questions will be provided to parents/guardians seven days before student contact.

**Grading**

**Grade Percentage**

A	B	C	D	F
90% - 100%	80% - 89%	70% - 79%	60% - 69%	<60%

**Quarter grades**

Please check the Infinite Campus Parent Portal OFTEN to be informed about your student's grades.

Quarter grades will be broken down as follows:

80%- Assessments

20%- Assignments, projects

**Semester grades**

Semester grades are calculated using 40/40/20: Each quarter accounts for 40% of the semester grade and the final exam accounts for the remaining 20%.

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## Units of study

### Units for MAT430A Introduction to Statistics

Chapter 1 - Analyzing One-Variable Data (includes categorical and quantitative data displays, measures of center and variability, and describing location in a distribution)

Chapter 2 - Analyzing Two-Variable Data (includes relationships between categorical and quantitative data, correlation, regression lines, least-squares regression lines, assessing a regression model and fitting models to curved relationships)

Chapter 3 – Collecting Data (includes data collection methods, sampling methods, simple random samples, sampling variability, observational studies and experiments, design of experiments, inference for experiments)

Chapter 4 – Probability (includes randomness, probability, and simulations, basic probability rules, two-way tables and venn diagrams, conditional probability and independence, the general multiplication rule and tree diagrams, the multiplication rule for independent events, permutations, combinations and the multiplication counting principle)

Chapter 5 – Random Variables (includes discrete and continuous random variables, analyzing discrete random variables, analyzing binomial random variables, continuous random variables, the Standard Normal Distribution, and normal distribution calculations)

Chapter 6 – Sampling Distributions (includes parameters and statistics, using sampling distributions to evaluate claims, center and variability of sampling distributions, the normal approximation to the binomial, the sampling distribution of a sample proportion, the sampling distribution of a sample mean, the Central Limit Theorem)

Chapter 7 – Estimating a Parameter (includes confidence intervals, margin of error, estimating a proportion, confidence intervals for a proportion, estimating a mean, confidence intervals for a mean)

Chapter 8 – Testing a Claim (includes the idea of a significance test, using significance tests in decision making, testing a claim about a proportion, significance tests for a proportion, testing a claim about a mean, significance tests for a mean)

Chapter 9 – Comparing Two Populations or Treatments (includes estimating a difference between two proportions, testing a claim about a difference between two proportions, estimating a difference between two means, testing a claim about a difference between two means, analyzing paired data, testing a claim about a mean difference)

Chapter 10 – Inference for Distributions and Relationships (includes testing the distribution of a categorical variable, chi-square tests for goodness of fit, testing the relationship between two categorical variables, chi-square tests for association, testing the relationship between two quantitative variables, inference for the slope of a least-squares regression line)

*\*An asterisk will indicate a unit of study containing sexually explicit materials per legislative definitions.*



# Chandler Unified School District

## MAT430A Introduction to Statistics

### SY 2023-24



**Site:** Hamilton High School

**Building Principal:** Michael Delatorre, delatorre.michael@cusd80.com

**Teacher:** Julie Howard, howard.julieh@cusd80.com

## Parent/Guardian

### Acknowledgment

Parents/Guardians should indicate if they “Acknowledge” or have a “Potential Conflict” with their student’s participation in the following units by checking the appropriate box for each unit of study listed. Students cannot opt out of a standards-based unit. Marking “Potential Conflict” will prompt the teacher to make contact regarding assignment alternatives.

Unit of study	Acknowledge	Potential Conflict
Chapter 1 - Analyzing One-Variable Data (includes categorical and quantitative data displays, measures of center and variability, and describing location in a distribution)	<input type="checkbox"/>	<input type="checkbox"/>
Chapter 2 - Analyzing Two-Variable Data (includes relationships between categorical and quantitative data, correlation, regression lines, least-squares regression lines, assessing a regression model and fitting models to curved relationships)	<input type="checkbox"/>	<input type="checkbox"/>
Chapter 3 – Collecting Data (includes data collection methods, sampling methods, simple random samples, sampling variability, observational studies and experiments, design of experiments, inference for experiments)	<input type="checkbox"/>	<input type="checkbox"/>
Chapter 4 – Probability (includes randomness, probability, and simulations, basic probability rules, two-way tables and venn diagrams, conditional probability and independence, the general multiplication rule and tree diagrams, the multiplication rule for independent events, permutations, combinations and the multiplication counting principle)	<input type="checkbox"/>	<input type="checkbox"/>
Chapter 5 – Random Variables (includes discrete and continuous random variables, analyzing discrete random variables, analyzing binomial random variables, continuous random variables, the Standard Normal Distribution, and normal distribution calculations)	<input type="checkbox"/>	<input type="checkbox"/>
Chapter 6 – Sampling Distributions (includes parameters and statistics, using sampling distributions to evaluate claims, center and variability of sampling distributions, the normal approximation to the binomial, the sampling distribution of a sample proportion, the sampling distribution of a sample mean, the Central Limit Theorem)	<input type="checkbox"/>	<input type="checkbox"/>
Chapter 7 – Estimating a Parameter (includes confidence intervals, margin of error, estimating a proportion, confidence intervals for a proportion, estimating a mean, confidence intervals for a mean)	<input type="checkbox"/>	<input type="checkbox"/>
Chapter 8 – Testing a Claim (includes the idea of a significance test, using significance tests in decision making, testing a claim about a proportion, significance tests for a proportion, testing a claim about a mean, significance tests for a mean)	<input type="checkbox"/>	<input type="checkbox"/>
Chapter 9 – Comparing Two Populations or Treatments (includes estimating a difference between two proportions, testing a claim about a difference between two proportions, estimating a difference between two means, testing a claim about a difference between two means, analyzing paired data, testing a claim about a mean difference)	<input type="checkbox"/>	<input type="checkbox"/>

Chapter 10 – Inference for Distributions and Relationships (includes testing the distribution of a categorical variable, chi-square tests for goodness of fit, testing the relationship between two categorical variables, chi-square tests for association, testing the relationship between two quantitative variables, inference for the slope of a least-squares regression line)

*\*An asterisk will indicate a unit of study containing sexually explicit materials per legislative definitions.*

**By signing and returning this form**, the parent/guardian acknowledges they have reviewed the resources and units of the study included in the syllabus.

- As the parent/guardian, I understand that I may contact the teacher if I have questions about the resources, content, or units of study.
- As the parent/guardian, I understand I can check my student’s grades in Infinite Campus anytime during the school year.

Student name (printed) \_\_\_\_\_

Student signature \_\_\_\_\_

Parent/Guardian name (printed) \_\_\_\_\_

Parent Signature \_\_\_\_\_

Date \_\_\_\_\_

***Please return this page to your student’s teacher.***