

# A.P. Statistics

Lithia Springs High School – Academic Year 2023-2024

Teacher: **Felicia Macecevic**

Email: [felicia.macecevic@douglas.k12.ga.us](mailto:felicia.macecevic@douglas.k12.ga.us)

Room: A107

School Website: <https://lshs.dcssga.org/>

School Number: 770-651-6700

My Website: [Felicia Macecevic - Lithia Springs High School \(dcssga.org\)](#)

My Number: 770-651-6848

## Course Description

Welcome to AP Statistics a semester long course! You are about to begin a course unlike any you have taken. Statistics is a vital, thriving, and exciting field of study and in some ways may be the most challenging course you have ever encountered.

This course is designed to develop students into competent users of statistics in real situations. Therefore, students will be immersed in real problems using real data that can be meaningfully explored only with statistical methods. As in real situations, students will be expected to justify the techniques they use, fully explain their process, and interpret their results in the context of the problem.

AP Statistics is an activity-based course in which students actively construct their own understanding of the concepts and techniques of statistics. Therefore, the classes will consist of activities and discussions in addition to some lectures. Students are expected to participate in the activities and discussions and to do their best to understand what the activities show them about statistics. The statistical topics include Exploring Data, Planning and Design of a Study, Anticipating Patterns, and Statistical Inference.

In addition, instruction on technology, with emphasis on the TI-84+, is incorporated into regular class activities. A graphing calculator is required for this course and students will be expected to learn the technology as well as the statistical concepts of the course. Students are expected to learn to apply the various techniques and formulas, as well as to explain how and why they work. However, it is equally important for students to become highly proficient in the use of the graphing calculator as it applies to this course. Students will be provided with TI-84+ calculators to use throughout this course. Note this calculator can also be useful not just in AP Statistics, but in Physics, Chemistry, Calculus, Economics and many other classes students will encounter in high school and college.

A goal of any AP class is preparation for the AP Exam which will be in May - *Exploring Data: (20 – 30% of Exam)*, *Sampling and Experimentation: (10 – 15% of Exam)*, *Anticipating Patterns: (20 – 30% of Exam)*, *Statistical Inference: (30 – 40% of Exam)*. In order to ensure that students are prepared for that exam, review sessions will be provided. Students enrolled in AP Statistics are expected to strive to take the AP Exam and therefore will be expected to attend some offered review sessions. This course requires a STEM Journal.

## AP Enrollment at LSHS

Advanced Placement (AP) courses are designed to enable *willing* and *academically prepared* students to pursue college-level credit while still in high school. Each course is designed to offer the same level of instruction as an introductory college course and culminates in a standardized college-level assessment or AP Exam. It is only by taking and passing these exams that a student is *eligible* to receive college credit.

**AP Classroom.** AP students are required to have an account with the CollegeBoard and must enroll in the appropriate AP Classroom using the Join Code provided by the teacher using their personal email.

**AP Exam Requirement.** Students electing to take an AP Course at Lithia Springs High School do so with the *intention of earning college credit by taking and passing the accompanying AP Exam*. As such, AP Exams are automatically ordered for all students enrolled in an AP Course at LSHS. Students who do not want to take the AP Exam must submit an [AP Exam Exemption Request Form](#).

## AP Exam Fees

**Paying for exams.** The fee to take an AP Exam at LSHS is **\$103** and is the responsibility of the student. AP exam fees can be paid using a credit or debit card online at [Student Fees | Lithia Springs HS](#). Payments not submitted by the due date will incur a late fee.

**Fee reductions for low-income families.** Students from qualifying families may receive one \$87 fee voucher and one or more \$49 fee vouchers -- regardless of exam subject. Fee reductions cannot be applied to a student's account until he/she submits the required documentation. The steps for applying for a fee waiver are as follows:

- Complete a Free & Reduced Meal Application online at <https://www.schoolcafe.com/>.
- Submit a "[Request to Share Information](#)" form to the cafeteria manager.
- The deadline to submit the fee reduction documents is April 12, 2024.

**Fee reductions for all other families.** Students who *are NOT from a qualifying low-income family* and who *are taking at least one AP STEM Exam* may be eligible for one \$87 fee voucher. The following subjects are considered AP STEM Exams: Biology, Calculus, Chemistry, Computer Science A, Computer Science Principles, Environmental Science, Physics, Pre-Calculus and Statistics.

**AP Exam cancellation fee.** It is \$40 to cancel an exam if an AP Exam Exemption Request form is submitted after the deadline. Students who do not show up to take the exam will not be issued a refund of any monies paid and may be assessed an additional \$40.

**Penalty for failing to pay for AP exams.** Students who do not pay their AP Exam fees will be placed on the LSHS Holds list. Students on the Holds list may be unable to participate in elective school activities such as dances, non-instructional field trips, athletics, and graduation activities. If a student on the Hold list withdraws from LSHS, his/her transcript will be withheld until the account is settled.

### Course Policies

- Transfer of Students' Averages and Report Card Four and a Half Week Averages: The teacher will assign each grade in the grade book with the students' transfer average.
- LSHS absence and tardy policy will be enforced. A student is determined to be late if they are not in the classroom before the late bell rings. Detentions will be assigned to tardy students without a pass.
- Students have the opportunity to make up work for absences. Absent must be written/noted when submitting work missed due to an absence so that the absence policy guidelines can be used. Please note initially missing grades are entered as an M which calculates as a zero and this is entered when said assignment is graded. This M can be replaced providing the missing work is submitted in a timely manner.
- Late work will be accepted as follows and graded as time permits. Late work is classified as work that is not turned in on time not due to excused or unexcused absences. Late submissions will receive a maximum grade of 70% and will only be accepted until the end of each 4.5-week grading period.
- Academic Honesty: Study groups on homework assignments outside of class are permitted and encouraged as long as it is used as a learning method. However, cheating, plagiarism, and other forms of poor academic conduct are not tolerated. Summative and Formative Assessments are designed to measure levels of mastery and must be the individual's product. Breaches of this policy will result in consequences including (but not limited to) a grade of zero on the assignment to a discipline referral – based on teacher's discretion. Grades entered in infinite campus reflect what the student was provided.
- Incomplete Grades: Incompletes are awarded to students who did not complete their Final exam upon finishing the course, and/or have major grades missing due to an unexpected absence or illness. For a missing Final exam incompletes will be converted to a numeric grade once the student completes the Final, or if the student is given numerous opportunities to take the test and fails to do so a zero will be awarded for the Final score. For missing exams or major grades, students have ten days to complete the missing items.
- Retesting: Students can retest to improve their grade, if they earned less than a 70. Students who choose to retest will be able to earn up to a 70 for that test. See student evaluations on page 3 for Retest criteria. There is no retest for the Final Exam.
- Grade Appeal: A student/parent has 5 business days from the date report cards are issued to appeal the final grade. The building principal's decision is final.

*\*Any course policy may be altered or waived based on the teacher's/building level administrator's discretion.*

### Lithia Springs High School "House Rules"

- Always be on time and prepared to learn, this includes logging into our Google Classroom immediately.
- Expect to actively participate, assist as needed in class and take good care of technology items provided.
- Passes will not be issued during the first or last 10 minutes of class (4 emergency passes every 9 weeks).
- Hats, hoods, headbands, etc. and too short clothing are not to be worn in the school building.

- All non-chrome book electronic devices brought into the classroom, including phones, iPods, earbuds, etc., must remain turned off and out of sight or they may be confiscated (2nd offense). Confiscated items will be turned into the front office and a detention will be written.
- Please stay in your class and in your seat until you are dismissed (the bell doesn't dismiss you).
- Thank you for helping with assisting in keeping our high school/classroom clean by picking up around your area and throwing your trash away at the end of the period.

Tardy Policy – Be sure to reference the Student Handbook

### **Tardies to School**

All students are expected to be in school before 8:20 AM. Any student arriving at school after 8:20 AM should report to the attendance clerk where the tardy will be documented as excused or unexcused according to the Board Policy. Students arriving after 8:20 AM that do not properly sign in will receive disciplinary action from the administration such as parent conference, detention, in-school suspension, loss of parking privileges, and/or loss of extracurricular privileges.

### **Tardies to Class – Also Included in page one of this Syllabus.**

Arrival to class after 10 minutes constitutes skipping and/or unauthorized area unless of course he/she is just arriving at school. In this case the student will have an excuse/pass from the attendance office. A tardy to class is within the first 10 minutes of class. Students who are tardy may receive discipline from the administration such as parent conference, detention, in-school suspension, loss of parking privileges, and/or loss of extracurricular privileges.

### **Tardy Policy**

Tardies will be recorded through the Student Conductor system and teacher input through Infinite Campus. Tardies to school and/or to class may include disciplinary action such as parent conference, detention, in-school suspension, loss of parking privileges, and/or loss of extra-curricular privileges. After THREE tardies either to school or to classes you will receive a detention before school at 7:30 a.m. to 8:00 a.m. and afternoons 3:15 to 3:45 p.m. Failure to serve detention leads to escalated consequences. Detention will be assigned for every third tardy. School Behavior Management Plan, etc. – Be sure to reference the Student Handbook for details on this and other school-wide policies.

### **School Behavior Management Plan, etc. –**

Be sure to reference the Student Handbook for details on this and other school-wide policies.

### **Course Expectations**

- Come to class prepared and ready to learn with charged Chromebook, notebook, supplies, notes from previewed videos provided in AP Classroom, etc. and assignments.
- Stay focused and on task – getting out of focus leads to misunderstanding, confusion, and distraction.
- Be ready to actively participate and assist as needed – ask questions, explain thoughts and ideas.
- Assignments are to be completed and submitted in a timely manner.
- Sharpen your study skills. You will need to study/review independently DAILY.
- Access and utilize the available resources in CollegeBoard /AP Central
- Set high goals for yourself and put forth your best effort to attain them.
- Maintain a STEM Journal
- Take advantage of my help and your peers' help. The best chance for success is to get involved in a study group.
- Attendance to class is vital. Each day we will be learning new material/sharpening old material. If absent you are expected to check the website (calendar) and Google Classroom before the next class to see what you missed.

Students who consistently meet and exceed course expectations will be rewarded with homework passes, positive calls home to parents, bonus points on classwork, etc. The decision for the reward is based on teacher's discretion.

## Course Goal

Primary Goal: To enable all students to earn credit for this course towards graduation.

Secondary Goal: Preparation for the AP Exam which will be given in May. In order to ensure that students are prepared for that exam, review sessions will be provided in the spring. Students enrolled in AP Statistics are expected to strive to take the AP Exam and therefore will be expected to attend some or all review sessions.

Tertiary Goal: To produce graduates that are motivated, life-long learners, and productive global citizens.

## Mathematics Department Grading Policy

### Grading Plan

**50% - Summative Evaluations:** *Common Unit Assessments/ Teacher Generated Assessments, Culminating Projects.*

**40% - Formative Evaluations:** *Teacher Generated Quizzes, Classwork, Homework Assignments, Labs, STEM Journals, Reflections.*

**10% - Final Comprehensive Examination:** This is in addition to the AP examination for this course. This course will have a Final Assessment/Exam.

### Student Evaluations

1. **Class work/Homework** will be assigned almost daily and might be checked for completeness. Upon instructor's discretion, certain class work/homework assignments may be collected and graded for accuracy. During each 9 week period there should be at least 18 but no more than 36 class work/homework assignments depending on mathematics course level.

2. **Tests/Quizzes/Tasks** will be given at teacher discretion to assess student success and upon completion of unit to determine student readiness for Common assessments. Throughout each Semester, there should be at least 10 but no more than 20 tests/quizzes/tasks depending on mathematics course level.

\* **Retesting:** Students can retest to improve their grade, if they earned less than a 70. In order to retest an email must be sent at least two days prior to the requested retest date. Students who choose to retest will be able to earn up to a 70 for that test. After school and in class retest dates will be determined and announced in advance. Students will need to complete one of the following items in order to retest:

- Must attend one help session **OR**
- must complete guided summative assignment (i.e. digital notebook, study guide, etc) **OR**
- must complete test corrections to original summative.

### 3. Final Comprehensive Exam:

**Final Exams** is a comprehensive exam provided by the Mathematics Department to assess student content knowledge and skill in the course. This exam will be given at the end of the semester to selected mathematics courses. Exploring Data: (20 – 30% of Exam), Sampling and Experimentation: (10 – 15% of Exam), Anticipating Patterns: (20 – 30% of Exam), Statistical Inference: (30 – 40% of Exam)

Please Note that there are no retakes on Final Exams.

### Grading Scale

A: 100 – 90

B: 89 – 80

C: 79 – 71

D: 70

F: below 70

Note: Administrators and department heads will keep a syllabus in their files for each teacher that explains in more detail their classroom philosophy, expectations, and protocol.

Course Schedule – Not listed in Order covered
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**Chapter 1: Data Analysis**

- Introduction to AP Statistics
- Ch.1 Introduction
- 1.1 Analyzing Categorical Data
- 1.2 Displaying Quantitative Data with Graphs
- 1.3 Describing Quantitative Data with Numbers
- 1.3 Describing Quantitative Data with Numbers

**Chapter 2: Modeling Distributions of Quantitative Data**

- 2.1 Describing Location in a Distribution
- 2.2 Density Curves and Normal Distributions

**Chapter 3: Exploring Two-Variable Quantitative Data**

- 3.1 Scatterplots and Correlation
- 3.2 Least-Squares Regression
- 3.3 Transforming to Achieve Linearity

**Chapter 4: Collecting Data**

- 4.1 Sampling and Surveys
- 4.1 Sampling and Surveys
- 4.2 Experiments
- 4.3 Using Studies Wisely

**Chapter 5: Probability**

- 5.1 Randomness, Probability, and Simulation
- 5.2 Probability Rules
- 5.3 Conditional Probability and Independence

**Chapter 6: Random Variables and Probability Distributions**

- 6.1 Discrete and Continuous Random Variables
- 6.2 Transforming Random Variables
- 6.3 Binomial and Geometric Random Variables

**Chapter 7: Sampling Distributions**

- 7.1 What is a Sampling Distribution?
- 7.2 Sample Proportions
- 7.3 Sample Means

**Chapter 8: Estimating Proportions with Confidence**

- 8.1 Confidence Intervals: The Basics
- 8.2 Estimating a Population Proportion
- 8.3 Estimating a Difference in Proportions

**Chapter 9: Testing Claims About Proportions**

- 9.1 Significance Tests: The Basics
- 9.2 Tests about a Population Proportion
- 9.3 Tests about a Difference in Proportions

**Chapter 10 Estimating Means with Confidence**

- 10.1 Estimating a Population Mean
- 10.2 Estimating a Difference in Means

**Chapter 11: Testing Claims About Means**

- 11.1 Tests About a Population Mean
- 11.2 Tests About a Difference in Means

**Chapter 12: Inference for Distributions and Relationships**

- 12.1 Chi-Square Tests for Goodness of Fit
- 12.2 Inference for Two-Way Tables
- 12.3 Inference for Slope

*\*This course schedule dates are tentative and are subject to change. For more detailed course schedule please access the appropriate calendar on my website [Felicia Macecevic - Lithia Springs High School \(dcssga.org\)](http://www.felicia-macecevic.com)*

## Course Material List

Chrome Book/Laptop with Internet access  
Graphing Calculator TI-84+ (will be provided for in classroom use)  
5 Steps to a 5 for AP Statistics  
4 AAA batteries  
2 Composition Notebooks  
2 Packs of Mini dry erase markers  
2 Packs of Mechanical Pencils  
3 Ring Binder with at least 4 Dividers

## Tutoring

Note all students have access to FREE 24/7 math tutoring using the FEV Tutor icon in Classlinks (our Portal) - along with in person tutoring on Thursdays after school in A107 3:15pm – 3:45pm.

## Course Resources

Yates, Daniel, Moore, David, Starnes, Daren. The Practice of Statistics. 6th ed., W.H. Freeman & Co., 2018.

The supplemental material each student receives on the first day of class contains resource materials, activities, and supplemental material. These should be placed in a three-ring binder and brought to class every day. Some of the materials come from articles in newspapers, journals, and the World Wide Web, as well as activities taken from various resources. Students will be expected to read articles critically and effectively communicate how they are related to the concepts of the course.

Projects will be assigned several times in the semester. Students will be expected to describe clearly and completely the methods used, the results of the study, and interpretations of these results.

Graphing calculators are required for all aspects of this course. A Texas Instruments TI- 84+ is required and will be used for all in-class demonstrations. Students who do not own their own calculator will be issued one from the school. Replacement cost will be determined.

My website can be accessed through our school website and consists of information that pertains to the course such as outline of our Calendar, syllabus, etc. Note that Google Classroom will contain announcements, classwork/homework assignments, concept notes, class information, etc.

**Note:** Google Classroom will be a helpful tool for students who are absent from class. However, it should not be used as a substitute for not attending class.

### **The following are great resources to check out for extra help:**

Jason Molesky's StatsMonkey website: [www.apstatsmonkey.com](http://www.apstatsmonkey.com)

Luke Wilcox's TheStatsMedic website: <http://thestatsmedic.com/>

Dashiell Young-Saver's Skew The Script website: <https://skewthescript.org/>

Annenberg Learner - Against All Odds, Inside Statistics video series: <https://www.learner.org/series/against-all-odds-inside-statistics/>

Rossman and Chance applets: [www.rossmanchance.com/applets](http://www.rossmanchance.com/applets)

StatKey applets: <http://www.lock5stat.com/StatKey/>

Rice Virtual Lab in Statistics: <http://onlinestatbook.com/rvls.html>

Content videos (goes beyond the scope of AP Statistics): [www.mathispower4u.com](http://www.mathispower4u.com)

American Statistical Association: <https://www.amstat.org/>

Stats4Stem: <http://www.stats4stem.org/>

Classifying Statistics Problems:

<https://www.ltconline.net/greenl/java/Statistics/catStatProb/categorizingStatProblemsJavaScript.html>

Patrick just Math Tutorials: <http://patrickjmt.com/>

# Syllabus Verification for A.P. Statistics

**Mrs. Macecevic**

You may view the syllabus and any other information via the school's website. Go to Lithia Springs High School main website, find my name on the school staff link, and then click on forms.

You may also contact me at any time throughout the semester for a copy of the syllabus if you would like a hard copy. Your child will be provided a paper copy of this syllabus and a digital copy is available on my school website.

## Video Permission

Lithia Springs High School will be engaging in a professional learning opportunity with teachers during the 2023-2024 school year that will include videoing in their classroom in an effort to increase research-based teaching practices. Each video will be used for professional learning and only viewed by certified school personnel. By signing below, you understand that during videoing, your child may be included in the video and also understand that the video will not be published.

Parent/Guardian and student please sign and return entire page.

I, \_\_\_\_\_ (print student name) agree to the standards and rules set forth by the syllabus for this course and comply with the video statement above.

I, \_\_\_\_\_ (print parent/guardian name) agree to the standards and rules set forth by the syllabus for this course and comply with the video statement above.

\_\_\_\_\_  
Student Signature

\_\_\_\_\_  
Parent/Guardian Signature

\_\_\_\_\_  
Date

Student Email: \_\_\_\_\_

Parent Email: \_\_\_\_\_

Parent/Guardian Phone Number: \_\_\_\_\_ (Cell)

Parent/Guardian Phone Number: \_\_\_\_\_ (Other)

## Initial each statement please.

\_\_\_\_ I have read, understand, and accept the LSHS AP enrollment policy.

\_\_\_\_ I understand why a student might be removed from an AP course and the impact that removal could have on the student's schedule and required credits.

\_\_\_\_ I know what an AP Classroom is and how to join it; I understand that I am required to enroll in my teacher's AP Classroom.

\_\_\_\_ I have read, understand, and will adhere to the LSHS AP Exam payment policies and deadlines; I understand my financial responsibility for this course.

\_\_\_\_ I know how to access [Student Fees | Lithia Springs HS](#), and how to use it to submit exam payments (including the any applicable deposit(s) that I must submit within the first two weeks of the semester).

\_\_\_\_ I understand how to obtain a fee reduction and know that I will not be eligible for one until I submit the AP Exam Fee Reduction Request form.

\_\_\_\_ I understand the consequences of not paying my AP Exam fees.