

# 2024-25 AP Statistics Syllabus

## Winthrop High School

Teacher: Mrs. Xu

Room: 126

Email: [yxu@winthrop.k12.ma.us](mailto:yxu@winthrop.k12.ma.us)

### COURSE DESCRIPTION

The AP Statistics course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. There are four themes evident in the content, skills, and assessment in the AP Statistics course: exploring data, sampling and experimentation, probability and simulation, and statistical inference. Students use technology, investigations, problem solving, and writing as they build conceptual understanding. The course consists of 9 units, as outlined by the College Board [Course & Exam Description \(CED\)](#).

1. Collecting Data
2. Exploring One-Variable Data
3. Exploring Two-Variable Data
4. Probability, Random Variables, and Probability Distributions
5. Sampling Distributions
6. Inference for Categorical Data (Proportions)
7. Inferences for Quantitative Data (Means)
8. Inference for Categorical Data (Chi-Square)
9. Inference for Quantitative Data: Slopes

### REQUIRED MATERIALS

- Binder with 5 tabs (Notes, Homework, Assessments, AP Prep, Resources)
- Composition or Spiral Notebook
- Graphing Calculator
- Writing Utensils (pencil, pen, highlighter)
- Chromebook with Google Classroom & AP Classroom Access

Google Classroom Code: **pi6mc3i**

AP Classroom Code: **27NG7V**

All required materials are expected to be brought to class EVERY scheduled AP Statistics period.

## ASSESSMENTS

Tests and quizzes will be given throughout the year. Students can expect ~2 quizzes and ~1 test each chapter. Students will be assessed through traditional quizzes and tests, projects, AP mock questions/exams, and other modes. Assessment dates will be clearly announced in advance.

There will be a review prior to most assessments. Being absent the day of the review is NOT an excuse for not taking the assessment. If absent the day of the assessment, students are responsible to schedule time to make up their assessment upon their return; failure to do so will result in a grade of zero.

## AP EXAM

All students enrolled in AP Statistics are expected to take the AP Statistics exam at the end of the year. The AP Statistics test is scheduled for Thursday, May, 2025 at 8 AM.

## HOMEWORK

Homework is a tool to help all students practice the skills and concepts learned in class in a more independent setting. Homework is expected to be completed to the best of the student's ability. AP Statistics homework will consist of lesson review questions and AP Skill Video Notes. Printed homework will be provided to students, but can also be found on Google Classroom and completed on separate paper. Due dates will be explicitly stated.

## CLASS NOTES & ACTIVITIES

AP Statistics is a unique course that explores real-world, everyday issues and situations. In this class, we use a variety of instructional activities and utilize an "Experience First, Formalize Later" (EFFL) approach. This allows students to connect with course material and content in a meaningful, engaging way. It is imperative that students connect class activities to course concepts. In addition to these class activities, our class will incorporate:

- *EFFL lessons* fuel sense making and build conceptual understanding of key concepts. We introduce every new topic with this approach.
- *Homework* helps build procedural fluency and allows students time to process and practice new ideas.
- *Warm-ups* can be used to clarify misconceptions, review ideas from previous days or units, and can be used to highlight particular problem types.
- *Assessments* expose students to the rigor of the AP Exam by including multiple choice and free response questions, with and without the use of calculators.
- *Released free response questions* give students opportunities to reflect on scoring guidelines and what counts as justification; later in the year, they offer mixed review of previous units.

## ATTENDANCE/PARTICIPATION

Students are expected to come to class every day with the required materials. Students are expected to participate in every dynamic of the class. Some work will be collected for grading and some will be used to help students facilitate their own understanding of the material.

## MAKE-UP & LATE ASSIGNMENTS

Students are expected to maintain a high level of attendance at WHS. Assignments and assessments that are missed due to absences from class are expected to be made up. Students will have up to three days to complete and hand in missing assignments.

## CLASSROOM RULES & EXPECTATIONS

- Arrive to class on time and prepared to work.
- No food or drinks in the classroom, besides water.
- Cell phones and any other electronic devices must be turned OFF and AWAY during the class period. Winthrop High School Policy states there are no student cell phones in classrooms and administration will be called to confiscate cell phones if issues persist.
- Practice mutual respect to all students, teachers, and classroom materials.

## WINTHROP HS CELL PHONE POLICY

Students are NOT allowed to use cell phones or smart devices during class time at Winthrop High School. Any student found using a cell phone or smart device during class time will be subject to school discipline. Use of cell phones during non-permitted times will result in the following consequences:

1. Reminder from the teacher
2. Administrator confiscation and one administrative detention
3. Administrator confiscation and two administrative detentions
4. Administrator confiscation, parent/guardian notification and pick up, and three administrative detentions

## PLAGIARISM

Any student who cheats/plagiarizes on an examination, or any other assignment, shall receive a zero, and may not make-up such work. While asking for help or working collaboratively with classmates is encouraged; copying classmates homework is not. Representing work from the web, software application or another person as your own is plagiarism. Students who violate these academic integrity guidelines will be privately admonished, receive a zero for the assignment and have their parent/guardian notified.

## EXTRA HELP

I am available after school until 2:30 PM each day. If a student needs additional help at a different time (before school or after 2:30 PM), please email [yxu@winthrop.k12.ma.us](mailto:yxu@winthrop.k12.ma.us) to set up.

## GRADING

All grades will be updated in PowerSchool within two weeks of the due date. Below is the grading scale for AP Statistics at Winthrop High School:

- Mastery Assessments (Tests, Quizzes, Projects) - 80%
- Practice Assignments (Classwork, Homework, etc) - 20%

## VISION OF THE GRADUATE

Winthrop High School strives to ensure its graduates are able to become productive citizens of their town, their state, and their nation. To do this, the school in 2011 embraced the following learning objectives, on which students are evaluated quarterly. Taken together, they express a community vision for what we want our graduates to be, know, and do.

WHS Students will become...

### *Critical Thinkers*

- They will use, apply, and evaluate multiple problem-solving strategies in a variety of disciplines.
- They will be able to select, organize, and evaluate new ideas.
- They will demonstrate the ability to actively and critically read.
- They will develop the skills and acquire the knowledge necessary to prepare them for college and career success
- They will be able to set priorities, and manage their time and tasks.

### *Effective Communicators*

- They will communicate ideas and information with clarity and with an understanding of their audience.
- They will integrate and use a variety of communication forms.
- They will listen effectively and respond appropriately to spoken communication.
- They will master standard English-language conventions.

### *Conscientious Citizens*

- They will be aware of, and follow, their community's rules and laws
- They will respect themselves and the community at large.
- They will be aware of and respect social and cultural diversity.
- They will understand, promote, and show the importance of hard work to achieve success.
- They will own their mistakes, and will learn from them.

### *Creative Achievers*

- They will show curiosity and enthusiasm in everything they do.
- They will work and think originally.
- They will appreciate the arts in their many forms.
- They will select, organize, and develop innovative ideas.
- They will build off the ideas of others.