



## Independent School District of Boise City

# AP Statistics

### Course Overview

Open to: 10, 11, 12, One-Year Course

Prerequisite: Integrated II-Geometry

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.

### Adopted Materials

- Starnes & Tabor, *The Practice of Statistics for the AP Course*, 8th ed. ISBN 1319613284.
- [AP Course and Exam Description](#)
- [Scales Folder](#)

### First Semester

Unit 1-1: Quantitative Data  
Unit 1-2: Studies and Data Collection  
Unit 1-3: Probability  
Unit 1-4: Discrete Random Variables  
Unit 1-5: Normal Distribution  
Unit 1-6: Linear Regression

Cumulative Review & Assessment

### Second Semester

Unit 2-1: Inference for a Proportion  
Unit 2-2: Inference for Two Proportions  
Unit 2-3: Inference for Categorical Data  
Unit 2-4: Inference for a Mean  
Unit 2-5: Inference for Two Means  
Unit 2-6: Linear Regression

Cumulative Review & AP Exam

## Semester 1

| Unit                                  | Learning Intentions                                                                                                                                                                               |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Unit 1-1: Quantitative Data           | <p>I am learning to organize, analyze, and interpret quantitative datasets as well as describe the location of a data point relative to the rest of the dataset.</p> <p><a href="#">Scale</a></p> |
| Unit 1-2: Studies and Data Collection | <p>I am learning about appropriate ways to collect data and how to design both studies and experiments.</p> <p><a href="#">Scale</a></p>                                                          |
| Unit 1-3: Probability                 | <p>I am learning how to interpret and calculate probabilities for certain events.</p> <p><a href="#">Scale</a></p>                                                                                |
| Unit 1-4: Discrete Random Variables   | <p>I am learning how to use discrete random variables to calculate the probabilities of certain events.</p> <p><a href="#">Scale</a></p>                                                          |
| Unit 1-5: Normal Distribution         | <p>I am learning how to model distributions using the Normal distribution and apply the Normal curve to distributions of sample data.</p> <p><a href="#">Scale</a></p>                            |
| Unit 1-6: Linear Regression           | <p>I am learning to analyze the relationship between two quantitative variables and model the relationship with a linear function.</p> <p><a href="#">Scale</a></p>                               |
| Cumulative Review & Assessment        | <p>I am learning how to complete a summative AP-style exam successfully.</p> <p><a href="#">Scale</a></p>                                                                                         |

## Semester 2

| Unit                                     | Learning Intentions                                                                                                                                      |
|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Unit 2-1: Inference for a Proportion     | I am learning to predict population proportions and test claims regarding population proportions.<br><a href="#">Scale</a>                               |
| Unit 2-2: Inference for Two Proportions  | I am learning to predict two population proportions and test claims regarding two population proportions.<br><a href="#">Scale</a>                       |
| Unit 2-3: Inference for Categorical Data | I am learning to test claims about distributions of categorical data.<br><a href="#">Scale</a>                                                           |
| Unit 2-4: Inference for a Mean           | I am learning to predict population means and test claims regarding population means.<br><a href="#">Scale</a>                                           |
| Unit 2-5: Inference for Two Means        | I am learning to predict two population means and test claims regarding two population means.<br><a href="#">Scale</a>                                   |
| Unit 2-6: Linear Regression              | I am learning to analyze the relationship between two quantitative variables and model the relationship with a linear function.<br><a href="#">Scale</a> |
| Cumulative Review & AP Exam              | I am learning how to complete a summative AP-style exam successfully.<br><a href="#">Scale</a>                                                           |