



**Course Name:** AP Statistics v20

**Course Credit:** 1.0

**Course Estimated Completion Time:** 2 segments/32-36 weeks

**Course Description:** Advanced Placement Statistics will introduce students to exploring data, sampling and experimentation by planning and conducting studies, anticipating patterns using probability and simulation, and employing statistical inference in order to analyze data and draw conclusions.  
<https://apcentral.collegeboard.org/pdf/ap-statistics-course-and-exam-description.pdf?course=ap-statistics>

**Prerequisites:** Algebra 2

**Honors Lessons:** No

**Course Profile (Includes Honors, if applicable)**

Type of Assessment	Quantity	Location(s)
Teacher-graded	23	5 Projects: 01.05, 04.01, 05.05, 07.04, 08.05 8 DBAs: 01.07, 02.06, 03.06, 04.07, 05.06, 06.06, 07.06, 08.06 6 Module Tests Part 2: 01.08, 02.07, 03.07, 05.07, 06.07, 07.07 2 Segment Exams Part 2: 04.08, 08.07 2 Collaboration Reflections
Auto-graded	30	30 Lesson-level assessments
Partial Auto-graded	8	8 Mid-Module Checks: 01.04, 02.03, 03.03, 04.03, 05.03, 06.03, 07.03, 08.03
Discussion-Based (DBA)	8	8 DBAs: 01.07, 02.06, 03.06, 04.07, 05.06, 06.06, 07.06, 08.06
Collaboration	4	4 Collaboration Opportunities: 01.05, 04.01, 05.05, 07.04
Project-based	5	5 Projects: 01.05, 04.01, 05.05, 07.04, 08.05
<b>Total Assessments</b>	<b>61</b>	

**Types of Assessments (Includes Honors, if applicable)**

Type of Assessment	Available	Type of Assessment	Available
Multiple Choice	Yes	Essay	Yes
Worksheets		Collaborative	Yes
Web 2.0		Short Response	Yes
Project - Based	Yes	Labs	No
Self - Check	Yes	DBAs	Yes

## Scope and Sequence

### SEGMENT 1

- Module 1: Exploring Data
  - Classifying Variables
  - Describing Data
  - Displaying Data
  - Measuring Position
  - Normal Distribution
- Module 2: Exploring Relationships
  - Scatterplots and Correlation
  - Least-Squares Regression
  - Transformations
- Module 3: Collecting Data
  - Sampling and Surveys
  - Experiments
  - Correlation Versus Causation
- Module 4: Probability and Random Variables
  - Randomness and Simulations
  - Probability
  - Random Variables
  - Binomial Random Variables
  - Geometric Random Variables

### SEGMENT 2

- Module 5: Sampling Distributions and Confidence Intervals
  - Sampling Distributions and Proportions
  - Sample Means
  - Confidence Intervals for Proportions
  - Confidence Intervals for Means
- Module 6: Proportions
  - Hypothesis Testing—One Proportion
  - Errors, Power, and Significance
  - Confidence Intervals—Two Proportions
  - Hypothesis Testing—Two Proportions
- Module 7: Means and Slope
  - Hypothesis Testing—One-Sample Mean
  - Comparing Two Means
  - Matched Pairs
  - Linear Regression and Interval for Slope
- Module 8: Chi-Square
  - Chi-Square Goodness-of-Fit Test
  - Chi-Square Tests of Inference
  - Exploring and Collecting Data Review
  - Probability, Sampling, and Inference Review