AP STATISTICS

# Course Skills

| Skill Category 1 | Skill Category 2 | Skill Category 3 | Skill Category 4 |
|---|---|---|---|
| ***Selecting Statistical Methods*** 1<br>Select methods for collecting and/or analyzing data for statistical inference. | ***Data Analysis*** 2<br>Describe patterns, trends, associations, and relationships in data. | ***Using Probability and Simulation*** 3<br>Explore random phenomena. | ***Statistical Argumentation*** 4<br>Develop an explanation or justify a conclusion using evidence from data, definitions, or statistical inference. |

## SKILLS

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| **1.A** Identify the question to be answered or problem to be solved *(not assessed)*. | **2.A** Describe data presented numerically or graphically. | **3.A** Determine relative frequencies, proportions, or probabilities using simulation or calculations. | **4.A** Make an appropriate claim or draw an appropriate conclusion. |
| **1.B** Identify key and relevant information to answer a question or solve a problem. | **2.B** Construct numerical or graphical representations of distributions. | **3.B** Determine parameters for probability distributions. | **4.B** Interpret statistical calculations and findings to assign meaning or assess a claim. |
| **1.C** Describe an appropriate method for gathering and representing data. | **2.C** Calculate summary statistics, relative positions of points within a distribution, correlation, and predicted response. | **3.C** Describe probability distributions. | |
| | **2.D** Compare distributions or relative positions of points within a distribution. | | |

### INFERENCE

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| **1.D** Identify an appropriate inference method for confidence intervals. | | **3.D** Construct a confidence interval, provided conditions for inference are met. | **4.C** Verify that inference procedures apply in a given situation. |
| **1.E** Identify an appropriate inference method for significance tests. | | **3.E** Calculate a test statistic and find a $p$-value, provided conditions for inference are met. | **4.D** Justify a claim based on a confidence interval. |
| **1.F** Identify null and alternative hypotheses. | | | **4.E** Justify a claim using a decision based on significance tests. |