AP Statistics

Syllabus 2023 - 2024

Description

Statistics is the study and manipulation of data, including ways to gather, review, analyze, and draw conclusions from data. *Descriptive statistics* describe and summarize numerical aspects of a data set. *Inferential statistics* uses probability to make predictions or inferences about a population based on a sample of data taken from that population.

Course Information

Teacher: Dr. Paul Bailey

Email: `pbailey@sonoranschools.org`

Website: `http://plbailey79.github.io/portal`

Text: *Understandable Statistics*, 8th edition, Brace, Brace, 2006

Grading Scale

ALL students are expected to take the AP End of Course Examination. Students should not expect to pass this class unless they are able to pass the AP Exam. Letter grades are targeted to reflect the students projected AP Exam Score.

AP Score	Letter Grade
5	A
4	B
3	C
2	D
1	F

Grade Components

Classwork:	20%
Homework:	10%
Quizzes:	20%
Examinations:	50%

Classwork consists of attendance and participation in discussion, and activities such as team quizzes, worksheets, and other group work. Classwork activities are normally be graded on a scale of zero to ten.

Homework will be assigned routinely, to be completed at home. These will not be collected, but will be graded using short (ten minute) assessments wherein students demonstrate that they have done the reading and practiced the exercises.

Quizzes are about twenty minutes long and occur weekly on Friday, and may cover recent or accumulated material. These will be graded on a scale of zero to ten.

Examinations are hour long written assessments. As the year progresses, these will become increasingly similar to actual AP exams. They will be graded on a scale of zero to one hundred points. Examinations may be categorized as tests or projects.

Tests (30 %) will not allow calculators. *Projects* (20 %) will be calculator active. A graphing calculator is required for the course and for the AP examination. We strongly recommend the TI NSpire CAS.

Course Outline

Week	Topic	Sections
Week 1	Samples	1.1 - 1.3
Week 2	Bar Graphs and Circle Graphs	2.1 - 2.2
Week 3	Histograms and Stem/Leaf Displays	2.2 - 2.3
Week 4	Averages and Variation	3.1 - 3.2
Week 5	Deviation and Percentiles	3.3 - 3.4
Week 6	Probability	4.1
Week 7	Probability	4.2
Week 8	Probability	4.3
Week 9	Random Variables	5.1 - 5.2
Week 10	Binomial Distributions	5.3
Week 11	Geometric and Poisson Distributions	5.4
Week 12	Normal Distributions	6.1
Week 13	Standard Normal Distributions	6.2 - 6.3
Week 14	Normal Approximation to Binomial Distribution	6.4
Week 15	Review	
Week 16	Review	
Week 17	Sampling Distributions	7.1
Week 18	Sampling Distributions	7.2
Week 19	Sampling Distributions	7.3
Week 20	Estimating μ	8.1 - 8.2
Week 21	Estimating p	8.3
Week 22	Estimating Differences	8.4
Week 23	Testing the Mean μ	9.1 - 9.2
Week 24	Testing a Proportion p	9.3
Week 25	Testing Differences	9.4 - 9.5
Week 26	Correlation	10.1
Week 27	Regression	10.2
Week 28	Inferences	10.3 - 10.4
Week 29	Chi-Square Distribution	11.1 - 11.2
Week 30	Chi-Square Distribution	11.3
Week 31	Review	
Week 32	Review	