First Quarter

Blocks	Concept	SOL	Text Reference
	Use two-way tables, analyze categorical data to describe patterns and departure from patterns and to find marginal frequency and relative frequencies, including conditional frequencies.	PS.7	
	Analyze graphical displays of data, including dotplots, stemplots, and histograms, to identify and describe patterns and departures from patterns, using central tendency, spread, clusters, gaps, and outliers. Appropriate technology will be used to create graphical displays.	PS.1	
	Compare distributions of two or more univariate data sets, analyzing center and spread (within group and between group variations), clusters and gaps, shapes, outliers, or other unusual features. Appropriate technology will be used to generate graphical displays.	PS.3	
	What is statistics?		Chapt. 1
	What is data? Quantitative vs. Qualitative		Chapt. 2
	Displaying categorical data		Chapt. 3
	Displaying quantitative data		Chapt. 4
	Analyze numerical characteristics of univariate data sets to describe patterns and departure from patterns, using mean, median, mode, variance, standard deviation, interquartile range, range, and outliers. Appropriate technology will be used to calculate statistics.	PS.2	
	Identify properties of a normal distribution and apply the normal distribution to determine probabilities, using a table or graphing calculator.	PS.17	
	Describing distributions numerically		Chapt. 5
	Standard deviation and normalizing. (Empirical Rule)		Chapt. 6
	Review/Test		
	Review of Part 1: Chapters 1 - 6		
	Analyze scatterplots to identify and describe the relationship between two variables, using shape; strength of relationship; clusters; positive, negative, or no association; outliers; and influential points. Appropriate technology will be used to generate scatterplots and identify outliers and influential points.	PS.4	
	Scatterplots, association, and correlation		Chapt. 7
	Find and interpret linear correlation, use the method of least squares regression to model the linear relationship between two variables, and use the residual plots to assess linearity. Appropriate technology will be used to compute correlation coefficients and residual plots.	PS.5	
	Least Square Regression		Chapt. 8
	Residual plots		
	Regression wisdom		Chapt. 9
	Review/Test		
	Review of Part 2: Chapters 7 - 9 (Don't Do Chapter 10)		

Second Quarter

Blocks	Concept	SOL	Text Reference
	Plan and conduct a survey. The plan will address sampling techniques (e.g., simple random and stratified) and methods to reduce bias.	PS.9	
	Describe the methods of data collection in a census, sample survey, and identify an appropriate method of solution for a given problem setting.	PS.8	
	Randomness - What is fair?		Chapt. 11
	Sample Surveys: *Census, Simple Random Sample, Types of Sampling		Chapt. 12
	Plan and conduct an experiment. The plan will address control, randomization, and measurement of experimental error.	PS.10	Chapt. 13
	Blocking, Experiments, Control Groups, Placebo		
	Review/Test		
	Review of Part 3: Chapters 11 - 13		
	Find probabilities (relative frequency and theoretical), including conditional probabilities for events that are either dependent or independent, by applying the "law of large numbers" concept, the addition rule, and the multiplication rule.	PS.13	
	Identify & describe two or more events as complementary, dependent, independent, and/or mutually exclusive.	PS.12	Chapt. 14
	Probability of an event		
	Complements		
	Mutually exclusive		
	Multiplication Rule		
	Compute & distinguish between permutations and combinations and use technology for applications.	PS.11	Chapt. 15
	Conditional Probability		
	Probability Rules		
	Permutations and Combinations (supplement permutations with Discrete textbook)		
	Review/Test - Review: Chapters 14 - 15		
	Identify random variables as independent or dependent and find the mean and standard deviations for sums and differences of independent random variables.	PS.16	
	Random Variables		Chapt. 16
	Simulate probability distributions, including binomial and geometric.	PS.15	
	Develop, interpret, and apply the binomial probability distribution for discrete random variables, including computing the mean and standard deviation for the binomial variable.	PS.14	
	Binomial and geometric distributions		Chapt. 17

Second Quarter

Blocks	Concept	SOL	Text Reference
	OPTIONAL: IF TIME PERMITS		
	Identify the meaning of sampling distribution with reference to random variable, sampling statistic, and parameter and explain the Central Limit Theorem. This will include sampling distribution of a sample proportion, a sample mean, a difference between two sample proportions, and difference between two means (independent and paired).	PS.20	
	Sampling Distributions		Chapt. 18
	Given data from a large sample, will find and interpret point estimates and confidence intervals for parameters. The parameters will include proportion and mean, difference between two proportions, and difference between two means (independent and paired).	PS.18	
	Confidence Intervals		Chapt. 19
	Apply and interpret the logic of a hypothesis-testing procedure. Tests will include large sample test for proportion, mean, difference between two proportions, and difference between two means (independent and paired) and Chi-squared test for goodness of fit, homogeneity of proportions, and independence.	PS.19	
	Testing hypothesis		Chapt. 20
	More Testing		Chapt. 21
	Identify properties of a t-distribution and apply t-distributions to single-sample and two-sample (independent and matched pairs) t-procedures, using the tables or graphing calculators.	PS.21	
	T-distributions		Chapt. 25