Unit 7 – Inference for Quantitative Data: Means

10 – 18% Exam Weight

Day	Lesson and Objectives	Assignment
2/17 and 2/18	**Notes 1 – Confidence Intervals for Means** • VAR-1.I Identify questions suggested by probabilities of errors in statistical inference. • VAR-7.A Describe t-distributions. • UNC-4.O Identify an appropriate confidence interval procedure for a population mean, including the mean difference between values in matched pairs. • UNC-4.P Verify the conditions for calculating confidence intervals for a population mean, including the mean difference between values in matched pairs. • UNC-4.R Calculate an appropriate confidence interval for a population mean, including the mean difference between values in matched pairs. • UNC-4.S Interpret a confidence interval for a population mean, including the mean difference between values in matched pairs. • UNC-4.T Justify a claim based on a confidence interval for a population mean, including the mean difference between values in matched pairs.	HW 1
2/19	**Activity: Creating a Confidence Interval with Presidents** • Students will practice creating a confidence interval by collecting data on the number of U.S. presidents they can recall in one minute, and subsequently creating a One Sample T Interval and a One Proportion Z Interval to interpret and analyze the collected data.	
2/20	**Notes 2 – Significance Tests for Means** • VAR-7.B Identify an appropriate testing method for a population mean with unknown σ , including the mean difference between values in matched pairs. • VAR-7.C Identify the null and alternative hypotheses for a population mean with unknown σ , including the mean difference between values in matched pairs. • VAR-7.D Verify the conditions for the test for a population mean, including the mean difference between values in matched pairs. • VAR-7.E Calculate an appropriate test statistic for a population mean, including the mean difference between values in matched pairs. • DAT-3.E Interpret the p-value of a significance test for a population mean, including the mean difference between values in matched pairs. • DAT-3.F Justify a claim about the population based on the results of a significance test for a population mean.	HW 2
2/23	**Activity: Testing a Claimed Mean with M&Ms** • Students will use fun size bags of M&Ms to test the claim that all fun size bags will contain a certain about of M&M candies.	
2/24	**Unit 7 Quiz**	

2/25	**Notes 3 – Margin of Error and Matched Pairs** • UNC-4.Q Determine the margin of error for a given sample size for a one-sample t-interval. • UNC-4.U Identify the relationships between sample size, width of a confidence interval, confidence level, and margin of error for a population mean. • Matched Pairs Objective will be covered for UNC-4.O, UNC-4.P, UNC-4.R, UNC-4.S, UNC-4.T, VAR-7.B, VAR-7.C, VAR-7.D, VAR-7.E, DAT-3.E, DAT-3.F.	HW 3
2/26	**Notes 4 – Confidence Intervals for a Difference in Means** • UNC-4.U Identify an appropriate confidence interval procedure for a difference of two population means • UNC-4.W Verify the conditions to calculate confidence intervals for the difference of two population means. • UNC-4.X Determine the margin of error for the difference of two population means. • UNC-4.Y Calculate an appropriate confidence interval for a difference of two population means. • UNC-4.Z Interpret a confidence interval for a difference of population means. • UNC-4.AA Justify a claim based on a confidence interval for a difference of population means. • UNC-4.AB Identify the effects of sample size on the width of a confidence interval for the difference of two means.	HW 4
2/27	**Notes 5 – Significance Tests for a Difference in Means** • VAR-7.F Identify an appropriate selection of a testing method for a difference of two population means. • VAR-7.G Identify the null and alternative hypotheses for a difference of two population means. • VAR-7.H Verify the conditions for the significance test for the difference of two population means. • VAR-7.I Calculate an appropriate test statistic for a difference of two means. • DAT-3.G Interpret the p-value of a significance test for a difference of population means • DAT-3.H Justify a claim about the population based on the results of a significance test for a difference of two population means in context.	HW 5
3/2	**Notes 6 – Calculator Commands & Choosing Your Inference Method** • Topic 7.10 Skills Focus: Selecting, Implementing, and Communicating Inference Procedures	HW 6
3/3	**Unit 7 Project: TBD**	Start: Unit 7 Test Review 1
3/3-3/4	• Unit 7 Summary Lesson • Unit 7 Test Review 1 • Unit 7 Test Review 2	Unit 7 Test Review 1 Unit 7 Test Review 2

3/5	Unit 7 Test	All Unit 7 Assignments Due Today!