

Unit 5 – Sampling Distributions

7 – 12% Exam Weight

Day	Lesson and Objectives	Assignment
12/4	Notes 1 – The Normal Distribution and Combining Normal Random Variables - VAR-6.A: Calculate the probability that a particular value lies in a given interval of a normal distribution. - VAR-6.B Determine the interval associated with a given area in a normal distribution. - VAR-6.C Determine the appropriateness of using the normal distribution to approximate probabilities for unknown distributions - VAR-5.E Calculate parameters for linear combinations of random variables.	HW 1
12/5	Activity: Simulation of the Sampling Distribution of a Sample Proportion - An introduction activity to the differences between population, sample, and sampling distributions by using a simulation - UNC-3.H Estimate sampling distributions using simulation.	
12/8	Optional Unit 4 Project Due Today by 3:15 pm Notes 2 – Sampling Distribution of a Sample Proportion - UNC-3.I Explain why an estimator is or is not unbiased. - UNC-3.J Calculate estimates for a population parameter. - UNC-3.K Determine parameters of a sampling distribution for sample proportions. - UNC-3.L Determine whether a sampling distribution for a sample proportion can be described as approximately normal. - UNC-3.M Interpret probabilities and parameters for a sampling distribution for a sample proportion.	HW 2
12/9	Notes 3 – Sampling Distribution of a Difference in Sample Proportions - UNC-3.N Determine parameters of a sampling distribution for a difference in sample proportions. - UNC-3.O Determine whether a sampling distribution for a difference of sample proportions can be described as approximately normal. - UNC-3.P Interpret probabilities and parameters for a sampling distribution for a difference in proportions.	HW 3
12/10	Activity: Population, Sample, and Sampling with Yellow M&Ms Students develop an understanding of the differences between the three topics by sampling yellow M&Ms from a population.	
12/11	Unit 5 Quiz	

12/12	Notes 4 – Sampling Distribution of a Sample Mean • UNC-3.H Estimate sampling distributions using simulation. • UNC-3.Q Determine parameters for a sampling distribution for sample means • UNC-3.R Determine whether a sampling distribution of a sample mean can be described as approximately normal. • UNC-3.S Interpret probabilities and parameters for a sampling distribution for a sample mean.	HW 4
12/15	Notes 5 – Sampling Distribution of a Difference in Sample Means • UNC-3.T Determine parameters of a sampling distribution for a difference in sample means • UNC-3.U Determine whether a sampling distribution of a difference in sample means can be described as approximately normal. • UNC-3.V Interpret probabilities and parameters for a sampling distribution for a difference in sample means	HW 5
12/16	Activity: Unit 5 Circuit Review • Students review all the material in Unit 5 by practicing AP-style problems in a circuit-style review.	
12/17	Unit 5 Summary • Unit 5 Summary Slides with Student Handout • Work on Test Review for the rest of class	Test Review due the day of the test
12/18	Unit 5 Test	All Unit 5 Assignments Due Today