**Unit 3: Anticipating Patterns: Exploring random phenomena using probability and simulation**

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| **Week 1 (11/20 – 11/22)** |
| **Day 1**5.1 Introduction, The Idea of Probability, Myths about Randomness, Simulation, *Technology: Random Numbers with Calculators***Day 2**5.2 Probability Models, Basic Rules of Probability**\*\*\*Required assignment DUE Monday 11/25\*\*\*** Read TPS Ch.5.1 p. 282-293 and take notesChapter 5.1: TPS p. 293-298 #1, 3, 7, 9, 11, 15, 17, 19, 23, 25, 27, 31, 32;Chapter 5.2: TPS p. 309-310 #43, 45, 47**Extra Credit assignment DUE Monday 11/25:** SFA5 Chapter packet – 5.1 Concepts 1-2 “check your understanding”SFA5 Chapter packet – 5.2 Concept 1 “check your understanding” |
| **Week 2 – 3 day week (11/25 – 11/27)** |
| Activities:**Day 1**5.2 Two-Way Tables and Probability, Venn Diagrams and Probability\*\*\*QUICK QUIZ Chapter 5.1\*\*\***Day 2 (half-day)**5.2 Two-Way Tables and Probability, Venn Diagrams and Probability**\*\*\*Required assignment DUE Monday 12/2\*\*\*** Chapter 5.2: TPS p. 297-298 #29, 33-36; p. 309-311 #49, 51, 53, 55**Extra credit assignment DUE Monday 12/12:** SFA5 Chapter packet – 5.2 Concept 2 “check your understanding” |
| **Week 3 (12/2 – 12/6)** |
| Activities:**Day 1**5.3 What is Conditional Probability?, Conditional Probability and Independence, Tree Diagrams and the General Multiplication Rule**Day 2**5.3 Independence: A Special Multiplication Rule, Calculating Conditional Probabilities\*\*\*QUICK QUIZ: Chapter 5.2\*\*\***Day 3**6.1 Discrete random Variables, Mean (Expected Value) of a Discrete Random Variable, Standard Deviation (and Variance) of a Discrete Random Variable, Continuous Random Variables, *Technology: Analyzing Random Variables on the Calculator***\*\*\*Required assignment DUE Monday 12/9\*\*\*** Chapter 5.2: TPS p. 311 #57-60; p. 329-330 #63, 65, 67, 69, 73, 77, 79Chapter 5.3: TPS p. 330-332 #83, 85, 87, 91, 93, 95, 97, 99Chapter 5 Review: SFA5 Chapter packet – Ch.5 Multiple Choice Practice and FRAPPY!**Extra credit assignment DUE Monday 12/9:** SFA5 Chapter packet – 5.3 Concepts 1-3 “check your understanding” |
| **Week 4 (12/9 – 12/13)** |
| Activities:**Day 1**Chapter 5\*\*\*PRACTICE AP MC & FRQ QUIZ: Chapter 5\*\*\***Day 2**6.2 Linear Transformations, Combining Random Variables, Combining Normal Random Variables**\*\*\*Required assignment DUE Friday 12/13\*\*\*** Chapter 6.1: TPS p. 356 #27-30; p. 378-381 #37, 39-41, 43, 45, 49, 51, 57-59, 63**Extra credit assignment DUE Friday 12/13:** SFA5 Chapter packet – 6.1 Concepts 1-2 “check your understanding”**Day 3**6.3 Binomial Settings and Binomial Random Variables, Binomial Probabilities, *Technology: Binomial Probabilities on the Calculator*\*\*\*QUICK QUIZ: Chapter 6.1\*\*\***\*\*\*Required assignment DUE Monday 12/16\*\*\*** Chapter 6.2: TPS p. 381-382 #61, 65, 66; p.403-404 #69, 71, 73, 75, 77**Extra credit assignment DUE Monday 12/16:** SFA5 Chapter packet – 6.2 Concepts 1-3 “check your understanding”SFA5 Chapter packet – 6.3 Concept 1 “check your understanding” |
| **Week 5 (12/16 – 12/20)** |
| Activities:**Day 1** 6.3 Mean and Standard Deviation of a Binomial Distribution, Binomial Distributions in Statistical Sampling\*\*\*QUICK QUIZ: Chapter 6.2\*\*\***Day 2**6.3 Geometric Random Variables, *Technology: Geometric Probabilities on the Calculator***Day 3 (half-day)**7.1 Introduction**\*\*\*Required assignment DUE Monday 1/6\*\*\*** Chapter 6.3: TPS p.404-405 # 79, 81, 83, 85, 87, 89, 93, 95, 97, 99, 101-103Chapter 6 Review: SFA5 Chapter packet – Ch.6 Multiple Choice Practice and FRAPPY!Take-home quiz: Chapter 6**Extra credit assignment DUE Monday 1/6:** SFA5 Chapter packet – 6.3 Concept 2 “check your understanding”SFA5 Chapter packet – 6.3 Concept 3 “check your understanding” |