**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 notes  Chapter 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, 79  Chapter 5.3: TPS p. 330-332 #83, 85, 87, 91, 93, 95, 97, 99  Chapter 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, 101-103  Chapter 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” |