

## STA 2023 Course Schedule

| Day/Date       | Chapter           | Topic and Learning Outcomes  | Activities  |
|----------------|-------------------|--|---|
| Day 1<br>01/09 | 1.1<br>1.2<br>1.3 | Orientation, Introduction, Preview and Statistical Thinking , Types of Data.                       | <a href="#">Text</a><br>1.1/1.2 Statistical Thinking and Critical Thinking<br>1.3 Types of Data<br>Read 1.1/1.2 p. 3 – 11<br>Read 1.3 p. 15 - 20                                    |
|                | 2.1               | Frequency Distributions  | <a href="#">Text</a><br>2.1/2.2 Frequency Distributions<br>Read pages 43 - 50 in the textbook.  |
|                | 2.2               | Histograms   | <a href="#">Text</a><br>2.3 Histograms<br>2.3: Read pages 54 - 58 in the textbook.  |
|                | 2.3               | Stem and Leaf Plots  | <a href="#">Text</a><br>2.4 Graphs that Enlighten and Graphs that Deceive<br>2.4: Read pages 63 (Stemplots only) in the textbook.   |
| Day 2<br>01/16 | 3.1               | Measures of Central Tendency:<br>Mean, Median, Mode, Midrange                                      | <a href="#">Text</a><br>3.2 Measures of Center<br>Read pages 79 - 90 in textbook.   |
|                | 3.2               | Measures of Variation:<br>Range, Standard Deviation, Variance, Coeff of Variation, Empirical Rule. | <a href="#">Text</a><br>3.3 Measures of Variation<br>Read pages 96-104 in textbook.   |
|                | 3.3               | Measures of Relative Standing:<br>z scores, percentile, quartiles, boxplots.                       | <a href="#">Text</a><br>3.4 Measures of Relative Standing & Boxplots<br>Read pages 112-118 in textbook.   |
| Day 3<br>01/23 | 4.1/4.2           | Basic Concepts of Probability  | <a href="#">Text</a><br>4.2 Basic Concepts of Probability<br>Read pages 132 - 144 in textbook.  |
|                | 4.3               | Addition Rule  | <a href="#">Text</a><br>4.3 Addition Rule<br>Read pages 149 - 152 in textbook.  |
|                | 4.4/4.5           | The Multiplication Rules: Basics<br>Multiplication Rule: Complements and Conditional Probability   | <a href="#">Text</a><br>4.4 Multiplication Rule: Basics<br>Read pages 156-163 in textbook.<br>Read pages 168 - 171.   |
|                | 4.6               | Counting   | <a href="#">Text</a><br>4.6 : Counting<br>Read pages 175-180 in textbook.   |
| Day 4<br>01/30 |                   | Review of chapters 1, 2, 3 & 4   |   |
| Day 5<br>02/06 |                   | <b>Test 1</b>  |   |
| Day 6<br>02/13 | 5.1/5.2           | Random Variables   | <a href="#">Text</a><br>5.2 Probability Distributions<br>Read pages 195 - 206 in textbook.  |
|                | 5.3<br>5.4        | Binomial Probability Distributions<br>Parameters for the Binomial Distribution                     | <a href="#">Text</a><br>5.3 Binomial Probability Distributions<br>Read pages 210 - 217 in textbook.<br>5.4 Parameters for Binomial Distributions<br>Read pages 223-225 in textbook. |
| Day 7<br>02/20 | 6.2               | The Standard Normal Distribution   | <a href="#">Text</a><br>6.2: The Standard Normal Distribution<br>Read pages 237 - 249 in textbook.  |
|                | 6.3               | Applications of the Normal Distribution  | <a href="#">Text</a><br>6.3 Applications of Normal Distributions<br>Read pages 270-276 in textbook.   |
|                | 6.5               | The Central Limit Theorem  | <a href="#">Text</a><br>6.5 Central Limit Theorem<br>Read pages 278 - 285 in textbook.  |

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| Day 8<br>02/27  | 7.1/7.2                  | Estimating a Population Proportion  | <a href="#">Text</a><br>7.2 Estimating a Population Proportion<br>Read pages 317-331 in textbook.   |
|                 | 7.3                      | Estimating a Population Mean: $\sigma$ known  | <a href="#">Text</a><br>7.3 Estimating a Population Mean<br>Read pages 347-349 in textbook.   |
|                 | 7.3 (cont.)              | Estimating a Population Mean: $\sigma$ unknown  | <a href="#">Text</a><br>7.3 Estimating a Population Mean: $\sigma$ Not Known<br>Read pages 337-347 in textbook.   |
| Day 9<br>03/13  |                          | Review Chapters 5, 6, 7   |   |
| Day 10<br>03/20 |                          | <b>Test 2</b>   |   |
| Day 11<br>03/27 | 8.1/8.2                  | Basics of Hypothesis Testing  | <a href="#">Text</a><br>8.2 Basics of Hypothesis Testing<br>Read pages 375-388 in the textbook (Focus on p value method throughout chapter 8.)  |
|                 | 8.3                      | Testing a Claim about a Proportion  | <a href="#">Text</a><br>8.3 Testing a Claim About a Proportion<br>Read pages 393 – 401 in the textbook.   |
|                 | 8.4                      | Testing a Claim about a Mean<br><br>Testing a Claim about a Mean: $\sigma$ Not Known  | <a href="#">Text</a><br>8.4 Testing a Claim About a Mean: $\sigma$ Known<br>Read pages 406 – 413 in the textbook.   |
| Day 12<br>04/03 | 9.3<br>9.4               | Inferences about Two Means: Independent Samples.<br>Inferences from Dependent Samples | <a href="#">Text</a><br>9.3: Two Means: Independent Samples<br>Read pages 447 – 456 in the textbook<br><a href="#">Text</a><br>9.4: Two Dependent Samples (Matched Pairs)<br>Read pages 461-467 (skip confidence intervals) in the textbook.  |
|                 | 11.3<br><br>10.2<br>10.3 | Contingency Tables<br><br>Correlation and Regression                                  | 11.3 Contingency Tables<br>Read pages 547 – 552 (skip tests of homogeneity) in the textbook.<br><a href="#">Text</a><br>10.2 Correlation<br>Read pages 481 – 496 in the textbook.<br>10.3 Regression<br>Read pages 503 – 509 in the textbook. |
| Day 13<br>04/10 |                          | Review chapters 8, 9  |   |
| Day 14<br>04/17 |                          | <b>Test 3</b>   |   |
| Day 15<br>04/24 |                          | Final review  |   |
| Day 16<br>05/01 |                          | <b>Final Exam</b>   |   |

NOTE: Any changes in the Course Outline and Syllabus will be announced.