STARK STATE COLLEGE

GENERAL SYLLABUS

Course Information

Course Name: Statistics
Course Number: MTH124

Required Materials

Textbook(s): Elementary Statistics: Picturing the World, 8th Edition: Larson; Pearson, 2022
ISBN (Instant Access): 9780137493227

Required Readings: None

Additional Materials: **Calculator**: The following two calculators are approved for use in this statistics course: TI-30XIIS (preferred) and Texas Instruments BAII Plus.

Course Outline/Calendar

The date of coverage and order of coverage may be modified based on the faculty member and events beyond the control of faculty members that interfere with class times and teaching.

16 Week Calendar

Week	Chapter/Topic/Lab
1	Chapter 1: Introduction to Statistics □ An overview of Statistics (1.1) □ Data Classification (1.2) □ Data Collection and Experimental Design (1.3)
2	Chapter 2: Descriptive Statistics □ Frequency Distributions and Their Graphs (2.1) □ More Graphs and Displays (2.2)
3	Chapter 2 continued □ Measures of Central Tendency (2.3) □ Measures of Variation (2.2)
4	Chapter 2 continued and Test 1 □ Measures of Position (2.5) □ Test 1 (Chapter 2)
5	Chapter 3: Probability □ Basic Concepts of Probability and Counting (3.1)

Week	Chapter/Topic/Lab
	□ Conditional Probability and the Multiplication Rule (3.2)
6	Chapter 3 continued □ The Addition Rule (3.3) □ Additional Topics in Probability and Counting (3.4)
7	Chapter 4: Discrete Probability Distributions □ Probability Distributions (4.1) □ Binomial Distributions (4.2)
8	Test 2 and Chapter 5: Normal Probability Distributions □ Test 2 (Chapters 3 & 4) □ Introduction to Normal Distributions and the Standard Normal Distribution (5.1)
9	Chapter 5 continued □ Normal Distributions: Finding Probabilities (5.2) □ Normal Distributions: Finding Values (5.3)
10	Chapter 5 continued and Chapter 6: Confidence Intervals □ Sampling Distributions and the Central Limit Theorem (5.4) □ Confidence Intervals for the Mean (σ Known) (6.1)
11	Chapter 6 continued and Chapter 7: Hypothesis Testing with One Sample □ Confidence Intervals for the Mean (σ Unknown) (6.2) □ Introduction to Hypothesis Testing (7.1)
12	Chapter 7 continued □ Hypothesis Testing for the Mean (σ Known) (7.2) □ Hypothesis Testing for the Mean (σ Unknown) (7.3)
13	Test 3 and Chapter 9: Correlation and Regression □ Test 3 (chapters 5, 6 ,7) □ Correlation (9.1)
14	Chapter 9 continued and Chapter 10: Chi-Square Tests □ Linear Regression (9.2) □ Goodness-of-Fit Test (10.1)
15	Chapter 10 continued □ Independence (10.2) □ Review for Final Exam
16	Comprehensive Final Exam (chapters 1 - 7 and 9)

8 Week Calendar

Week	Chapter/Topic/Lab
1	Chapter 1: Introduction to Statistics □ An overview of Statistics (1.1) □ Data Classification (1.2) □ Data Collection and Experimental Design (1.3) Chapter 2: Descriptive Statistics □ Frequency Distributions and Their Graphs (2.1) □ More Graphs and Displays (2.2)
2	Chapter 2 continued □ Measures of Central Tendency (2.3) □ Measures of Variation (2.2) □ Measures of Position (2.5) □ Test 1 (Chapter 2)
3	Chapter 3: Probability □ Basic Concepts of Probability and Counting (3.1) □ Conditional Probability and the Multiplication Rule (3.2) □ The Addition Rule (3.3) □ Additional Topics in Probability and Counting (3.4)
4	Chapter 4: Discrete Probability Distributions □ Probability Distributions (4.1) □ Binomial Distributions (4.2) □ Test 2 (Chapters 3 & 4) Chapter 5: Normal Probability Distributions □ Introduction to Normal Distributions and the Standard Normal Distribution (5.1)
5	Chapter 5 continued □ Normal Distributions: Finding Probabilities (5.2) □ Normal Distributions: Finding Values (5.3) □ Sampling Distributions and the Central Limit Theorem (5.4) Chapter 6: Confidence Intervals □ Confidence Intervals for the Mean (σ Known) (6.1)

Week	Chapter/Topic/Lab
6	Chapter 6 continued □ Confidence Intervals for the Mean (σ Unknown) (6.2) Chapter 7: Hypothesis Testing with One Sample □ Introduction to Hypothesis Testing (7.1) □ Hypothesis Testing for the Mean (σ Known) (7.2) □ Hypothesis Testing for the Mean (σ Unknown) (7.3)
7	□ Test 3 (chapters 5, 6 ,7) Chapter 9: Correlation and Regression □ Correlation (9.1) □ Linear Regression (9.2) Chapter 10: Chi-Square Tests □ Goodness-of-Fit Test (10.1)
8	Chapter 10 continued □ Independence (10.2) □ Review for Final Exam □ Comprehensive Final Exam (chapters 1 - 7 and 9)