INTRODUCTORY

BUSINESS STATISTICS

STAT 000 – Introductory Business Statistics

Instructor Information

Name:

Office:

Phone:

Email:

Welcome to Business Statistics!

Statistics are all around us, especially in the workplace. This class will give you a good understanding of the statistics used in the business world today, including data collection, data analysis, interpretation, communication, and ethics. The goals are for you to be successful both in the course and in the workplace.

Introductory business statistics is an introduction to the fundamental concepts of probability, statistics, and data analysis in a business setting. Topics include surveys, experiments, quality control, numerical and graphical summaries, correlation and simple linear regression, probability, relations in categorical data, sampling distributions for means, confidence intervals, and hypothesis tests. The prerequisite is college algebra.

Text and Materials

This course uses digital courseware that can be accessed at http://home.stukent.com.

Learning Objectives

Successful students will be able to apply quantitative or logical reasoning and/or mathematical/statistical methods to understand and solve problems in the business world. In addition, they will be able to communicate their results.

- Use statistical concepts and methods to represent real situations in business.
- Use diverse statistical approaches, technologies, and tools to communicate about data symbolically, visually, numerically, verbally, and textually.
- Draw appropriate inferences from data based on quantitative analysis and/or logical reasoning.
- Make and evaluate important assumptions in estimation and data analysis.
- Evaluate social and ethical implications in statistics.

Grading Components

Chapter Assignments: Graded on a 30-point scale. We drop the lowest score. MS Excel will be used in most assignments.	**25%**
Chapter Quizzes: 15 questions each, multiple choice and true/false. We drop the lowest score.	**25%**
Midterm: 100 points, multiple choice and true/false. The midterm covers everything up to and including probability (Chapter 6).	**25%**
Final Exam: 100 points, multiple choice and true/false. The final covers everything in the term (Chapters 1-14).	**25%**

Course Schedules

16-week Course Schedule			
Week	**Topics**	**Readings/Lectures/Quiz**	**Assignments, Projects, and Exams**
1	Why Statistics is so Important in Business	Chapter 1	Activate Stukent Account Chapter 1
2	Data Collection in Business	Chapter 2	Chapter 2
3	Summarizing Data with Descriptive Statistics	Chapter 3	Chapter 3
4	Organizing Data with Charts and Graphs	Chapter 4	Chapter 4
5	Correlation and Regression	Chapter 5	Chapter 5
6	Probability and Independence	Chapter 6 Sections 1-6	Chapter 6
7	Probability and Independence	Chapter 6 Sections 6-8	
8	The Normal Distribution	Chapter 7	Chapter 7
9	The Binomial Distribution	Chapter 8 Sections 1-4	Chapter 8
10	The Binomial Distribution	Chapter 8 Sections 4-end	
	Sampling Distribution of the Sample Mean	Chapter 9 Sections 1-3	Chapter 9
11	Sampling Distribution of the Sample Mean	Chapter 9 Sections 3-end	
	Confidence Intervals for the Population Mean	Chapter 10 Sections 1-3	Chapter 10
12	Confidence Intervals for the Population Mean	Chapter 10 Sections 3-end	

	Hypothesis Testing for the Population Mean	Chapter 11 Sections 1-3	Chapter 11
13	Hypothesis Testing for the Population Mean	Chapter 11 Sections 4-end	
14	The t-Distribution: When Sigma is Unknown	Chapter 12 Sections 1-end	Chapter 12
15	Hypothesis Tests and Confidence Intervals for a Population Proportion	Chapter 13 Sections 1-end	Chapter 13
16	Using Statistics Correctly and Ethically as a Business Leader	Chapter 14 Sections 1-end	Chapter 14

8-week Course Schedule			
Week	**Topics**	**Readings/Lectures/Quiz**	**Assignments, Projects, and Exam**
1	Why Statistics is so Important in Business	Chapter 1	Activate Stukent Account Chapter 1
	Data Collection in Business	Chapter 2	Chapter 2
2	Summarizing Data with Descriptive Statistics	Chapter 3	Chapter 3
	Organizing Data with Charts and Graphs	Chapter 4	Chapter 4
3	Correlation and Regression	Chapter 5	Chapter 5
	Probability and Independence	Chapter 6 Sections 1-6	Chapter 6
4	Probability and Independence	Chapter 6 Sections 6-8	

	The Normal Distribution	Chapter 7	Chapter 7
5	The Binomial Distribution	Chapter 8 Sections 1-4	Chapter 8
	The Binomial Distribution	Chapter 8 Sections 4-end	
	Sampling Distribution of the Sample Mean	Chapter 9 Sections 1-3	Chapter 9
6	Sampling Distribution of the Sample Mean	Chapter 9 Sections 3-end	
	Confidence Intervals for the Population Mean	Chapter 10 Sections 1-3	Chapter 10
	Confidence Intervals for the Population Mean	Chapter 10 Sections 3-end	
	Hypothesis Testing for the Population Mean	Chapter 11 Sections 1-3	Chapter 11
7	Hypothesis Testing for the Population Mean	Chapter 11 Sections 4-end	
	The t-Distribution: When Sigma is Unknown	Chapter 12 Sections 1-end	Chapter 12
8	Hypothesis Tests and Confidence Intervals for a Population Proportion	Chapter 13 Sections 1-end	Chapter 13
	Using Statistics Correctly and Ethically as a Business Leader	Chapter 14 Sections 1-end	Chapter 14