Statistics for Economics and Business
Bridgewater State University

Winter 2022
ECON210-AW1
Online
MyStatLab
Office Hours: See **Ask Questions** section in course

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COURSE OVERVIEW: This course will provide students with an understanding of statistics and the ability to present and describe information, draw conclusions about large populations based on measures from sample data, and apply statistical methods to business and economic issues. Specifically, students will learn how to select samples sizes; how to analyze business data; how to perform hypothesis tests, and simple linear regression. Using business and economics examples as a frame of reference this course will immerse the student in the application of statistics. In this course students will learn how to apply statistics in the decision-making process. The textbook comes with data sets for many business applications.

The required software is Microsoft Excel. All calculations must be done in Excel. This software is available as part of the standard Microsoft Office product provided by BSU and is ubiquitous in the professional world. The selected textbook provides significant instructional material on the use of Excel as part of each chapter.

TEXTBOOK AND ONLINE LEARNING SYSTEM: A subscription to the online learning system MyStatLab is required for this course. The course code will be provided by the professor. The required textbook is *Basic Business Statistics, 14th Edition*, by Mark L. Berenson, David M. Levine, Timothy C. Krehbiel, Prentice-Hall. The e-version of the text comes with the purchase of access to MyStatLab. Access can be purchased online at MyStatLab or at the bookstore. Free access is available for a few weeks.

REQUIREMENTS: All assignments and exams will be taken on **MyStatLab** so students must have use of a computer, obtain access to the course, and have a plan to continue their access if their usual computer isn't working correctly. There will be **one check-in assignment**, **three exams and a problem set assignment for each chapter covered**. Each exam and problem set are formally non-cumulative (i.e. exams and problems sets do not have questions from previous exams and problem sets). However, you should recognize that the material builds upon itself. No make-up exams or problem sets will be given unless due to extreme events. An unexcused absence from an exam will be counted as a zero for the exam. Notification is required for missing exams in case of illness or other serious incapacitating condition! **All problem sets must be done using Microsoft Excel and work shown (Excel equations are minimum proof of work) with enough detail to understand your thought process. Other requirements are detailed on the MyStatLab course website. The Excel files ARE NOT turned in, but Excel is required to be used rather than paper and a calculator.**

GRADES: Your final grade is calculated as the percentage of points earned on **all of the assignments and exams**. There are approximately 1500 points to be earned in this course. The exact number of points per

assignment and exam are shown on MyStatLab. Do not depend on the percentages shown by MyStatLab for your cumulative grade as it is calculating the score incompletely (only completed assignments are included). Your course grade is equal to your total points earned divided by the total possible points for the semester and multiplied by 100 to get the percentage.
Conversion of number grades to letter grades will be determined at the end of the semester and may include a slight curve. However, a score of 90% (80%, 70%, 60%) will be sufficient for a letter grade of A- (B-, C-, D-). Fractionalized letter grading (+/-) will be used.

There is no extra credit! Instead, each question on problem sets allow you to make three attempts. The attempt with the highest score will be included in your grade. You can tell there are still attempts available for a question by looking for a button on the screen that says **Similar Question** (the wording may be slightly different but the button will disappear when you have used all three attempts for the question. In addition, the MyStatLab program often tells you when an entry is not correct and give you a chance to enter a different value. Taking advantage of this feature is NOT using one of the three attempts. An additional attempt is only taken by clicking on the **Similar Question** button. Before trying a second attempt you should work on your first attempt until you can get the correct answers shown to you. Each attempt will be the same problem but with different data resulting in different answers.

OTHER INFO: MyStatLab will be used for this course so get your access to this course on MyStatLab taken care of immediately. Your first graded assignment is to get into MyStatLab and do the "check-in" assignment for a grade. You should spend **at least 10 hours per week** on this course -- there is a positive correlation between study time and grade earned! Cramming generally does not help to learn and understand statistics concepts. Active participation is encouraged (which includes visiting the professor)! Information about asking questions can be found on the MyStatLab course under the heading Ask Questions. **For each chapter you are expected to read the chapter, review the slides, attend the lecture (if not an online course), and complete the problem set. It is a good practice to read the chapter and review the slides prior to the lecture or working on an assignment.** Online students and students from other sections are welcome to attend lectures in my face-to-face sections of this course if they exist.
Check InfoBear for my schedule of classes.

During sign up - and throughout the term - if you have any technical problems or website issues, send an email to technical support at MyStatLab explaining the issue. The MyStatLab support team is almost always better able to resolve technical issues than your instructor.

COURSE OUTLINE: The topics covered will follow the chapters in the text as shown below. However, additional material may be included at the instructor discretion (including material from the Internet).

Week	Topics	Assignments
Week 1	**Syllabus Review and Excel Introduction**	**Check-In Due***
	Chap. 1 - Defining and Collecting Data	**PS 1 Due TBA**
	Chap. 2 - Organizing and Visualizing Variables	**PS 2 Due TBA**
	CONTINUED	**PS 3 Due TBA**
	Chap. 3 - Numeric Descriptive Measures	
	CONTINUED	
	CONTINUED	
	Exam 1 (1-3)	
Week 2	**Chap. 4** - Basic Probability	**PS 4 Due TBA**

	Chap. 5 - Discrete Probability Distributions	**PS 6 Due TBA** **PS 7 Due TBA** **PS 8 Due TBA**
	Chap. 6 - The Normal Distribution and Other Continuous Distributions	
	Chap. 7 -Sampling Distributions	
	CONTINUED	
	Chap. 8 - Confidence Interval Estimation	
	CONTINUED	
Week 3	**Chap. 9** - Fundamentals of Hypothesis Testing: One-Sample Tests	**PS 9 Due TBA** **PS 10 Due TBA** **PS 11 Due TBA**
	CONTINUED	
	CONTINUED	
	Exam 2 (4, 6-9)	
	Chap. 10 - Two-Sample Tests	
	CONTINUED	
	Chap. 11 - Analysis of Variance	
	CONTINUED	
	CONTINUED	
Week 4	**Chap. 12** - Chi-Squared Tests and Nonparametric Tests	**PS 12 Due TBA** **PS 13 Due TBA** **No PS**
	CONTINUED	
	Chap. 13 - Simple Linear Regression	
	Chap. 14 - 18	
	Chap. 19 - Statistical Applications in Quality Management	
	Exam 3 (10-13)	
	Last Day of Course	

* Problem Sets and the Check-In assignment should be completed by 36 hours after the date shown in table but may be worked on all semester (so the due dates are not enforced).