

South Plains College
BUSI 2305-151/451: Business Statistics (On-Line)
Spring 2022

Instructor: Taek Hyun Jang, PhD

Email: tjang@southplainscollege.edu

Office: M107 (Math and Engineering Building, Levelland)

Virtual/Face-to-Face Office Hours:

- Mondays, 10:00 am-12:00 pm.
- Tuesdays, 1:00 pm - 2:30 pm.
- Wednesdays, 10:00 am-12:00 pm.
- Thursdays, 1:00 pm - 2:30 pm.
- Fridays, 10:00 am - 12:00 pm.
- And by appointment (scheduled in Blackboard).

**Office hours may be scheduled in Blackboard.*

Department: Business Administration

Discipline: Business

Course Number: BUSI 2305-151/451

Course Title: Business Statistics

Available Formats: conventional, hybrid, and internet

Campuses: Levelland and Reese

Course Description: Descriptive and inferential statistical techniques for business and economic decision-making. Topics include the collection, description, analysis, and summarization of data; probability; discrete and continuous random variables; the binomial and normal distributions; sampling distributions; tests of hypotheses; estimation and confidence intervals; linear regression; and correlation analysis. Statistical software is used to analyze data throughout the course. (BUSI 2305 is included in the Business Field of Study.)

Prerequisite: Successful completion with a grade of 'C' or better in MATH 1324 or MATH 1314 and successful completion with a grade of 'C' or better in BCIS 1305.

Credit: 3 **Lecture:** 3 **Lab:** 1

Textbook: *Elementary Statistics: Using Excel*, Triola, 2018, 7th Edition, Pearson Education.

Supplies: A graphing calculator with the statistics package is required and you are required to bring your calculator to EVERY class. TI-83, TI-83+, TI-83+TI-84+ are preferred, but many other softwares are also acceptable such as Micro Office Excel, MATLAB, R, SAS, etc. For any other graphing calculator, you will need to read the manual to determine how to make the

processes work. Cell phones and similar devices may NOT be used as calculators. If you have any questions about your calculator or software, check with the instructor immediately.

This course partially satisfies a Core Curriculum Requirement: None

Core Curriculum Objectives addressed:

- **Communications skills**—to include effective written, oral and visual communication
- **Critical thinking skills**—to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
- **Empirical and quantitative competency skills**—to manipulate and analyze numerical data or observable facts resulting in informed conclusions

Student Learning Outcomes: Upon completion of this course and receiving a passing grade, the student will be able to:

1. Describe the random processes underlying statistical studies.
2. Calculate and use probability in solving business problems.
3. Compute descriptive statistics, construct graphs for data analysis, and interpret outcomes.
4. Compute and interpret measures of central tendency and dispersion.
5. Calculate expected values to evaluate multiple outcomes of a decision.
6. Describe, interpret, and apply discrete and continuous probability distributions.
7. Construct and interpret confidence intervals for means and proportions.
8. Formulate, perform, and interpret hypotheses tests (one and two population parameters).
9. Calculate, evaluate, and interpret simple linear correlation/regression.
10. Use statistical software to graph, compute, and analyze statistical data.

Student Learning Outcomes Assessment: A pre- and post-test questions will be used to determine the extent of improvement that the students have gained during the semester

Course Evaluation:

Assessment

Homework Assignment: 10%
 Excel and Lab Assignment: 10%
 Exams (3): 20% each (total 60%)
 Final Exam: 20%

Grading Scale

90 or above A
 80 to 89 B
 70 to 79 C
 60 to 69 D
 59 and below F

Homework: Homework will be assigned online through Pearson MyMath. Students can access the homework assignment from SPC Blackboard without Course ID. Typically, the homework assignments are due at 11:59 pm on Fridays of every week and allow up to 5 attempts per problem. The due date of homework will not be extended, so please check the due date often and start early to avoid the any problems due to internet or Blackboard issues.

Excel and Lab assignments will be uploaded on SPC Blackboard, and students must upload their solutions through SPC Blackboard by the due.

Tentative Exam and Final Schedule:

- Exam 1: Chapters 1, 2, 3, & 10 (Date: 02/14/2022)
- Exam 2: Chapters 4, 5, & 6 (Date: 03/28/2022)
- Exam 3: Chapters 7, 8 & 9 (Date: 04/25/2022)
- Final Exam: Comprehensive (Date: 05/11/2022)

Make-up: Make-up work is given at the discretion of the instructor. NO make-up exams are given without prior notification AND proper documentation. If are absent from class, have given prior notification and proper documentation of your absence, you MUST make arrangements to take the exam BEFORE the next class period.

Communication:

- We will communicate through SPC Email during this semester. Pease use your SPC email for this course, otherwise I cannot guarantee I will receive and respond to other email addresses. Students can also stop by instructor's office during the office hours or make an appointment for face-to-face office hour.
- Virtual and Face-to-Face office hours are available from Monday through Friday. Students may stop by instructor's office (M107) or book the virtual meeting in Blackboard.

Attendance/Student Engagement Policy: Attendance and effort are the most important activities for success in this course. The instructor maintains records of the student's engagement throughout the semester. The student will be allowed to miss twenty percent (20%) of class assignments for the semester, **for any reason**. Should this number be exceeded, the instructor has the right to drop the student with a grade of F or an X, depending on the instructor's discretion.

Plagiarism violations include, but are not limited to, the following:

1. Turning in a paper that has been purchased, borrowed, or downloaded from another student, an online term paper site, or a mail order term paper mill;
2. Cutting and pasting together information from books, articles, other papers, or online sites without providing proper documentation;
3. Using direct quotations (three or more words) from a source without showing them to be direct quotations and citing them; or
4. Missing in-text citations.

Cheating violations include, but are not limited to, the following:

1. Obtaining an examination by stealing or collusion;
2. Discovering the content of an examination before it is given;
3. Using an unauthorized source of information (notes, textbook, text messaging, internet, apps) during an examination, quiz, or homework assignment;
4. Entering an office or building to obtain an unfair advantage;
5. Taking an examination for another;
6. Altering grade records;
7. Copying another's work during an examination or on a homework assignment;
8. Rewriting another student's work in Peer Editing so that the writing is no longer the original student's;
9. Taking pictures of a test, test answers, or someone else's paper.

COVID Syllabus Statement: Should be provided by the Vice-President of Student Services over email.

Student Code of Conduct Policy: Any successful learning experience requires mutual respect on the part of the student and the instructor. Neither instructor nor student should be subject to others' behavior that is rude, disruptive, intimidating, aggressive, or demeaning. Student conduct that disrupts the learning process or is deemed disrespectful or threatening shall not be tolerated and may lead to disciplinary action and/or removal from class.

Diversity Statement: In this class, the teacher will establish and support an environment that values and nurtures individual and group differences and encourages engagement and interaction. Understanding and respecting multiple experiences and perspectives will serve to challenge and stimulate all of us to learn about others, about the larger world and about ourselves. By promoting diversity and intellectual exchange, we will not only mirror society as it is, but also model society as it should and can be.

Disability Statement: Students with disabilities, including but not limited to physical, psychiatric, or learning disabilities, who wish to request accommodations in this class should notify the Disability Services Office early in the semester so that the appropriate arrangements may be made. In accordance with federal law, a student requesting accommodations must provide acceptable documentation of his/her disability to the Disability Services Office. For more information, call or visit the Disability Services Office at Levelland (Student Health & Wellness Office) 806-716-2577, Reese Center (Building 8) 806-716-4675, or Plainview Center (Main Office) 806-716-4302 or 806-296-9611.

Nondiscrimination Policy: South Plains College does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs and activities. The following person has been designated to handle inquiries regarding the non-discrimination policies: Vice President for Student Affairs, South Plains College, 1401 College Avenue, Box 5, Levelland, TX 79336. Phone number 806-716-2360.

Title IX Pregnancy Accommodations Statement: If you are pregnant, or have given birth within six months, Under Title IX you have a right to reasonable accommodations to help continue your education. To activate accommodations you must submit a Title IX pregnancy accommodations request, along with specific medical documentation, to the Director of Health and Wellness. Once approved, notification will be sent to the student and instructors. It is the student's responsibility to work with the instructor to arrange accommodations. Contact the Director of Health and Wellness at 806-716-2362 or email cgilster@southplainscollege.edu for assistance.

Campus Concealed Carry: Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in South Plains College buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and South Plains College policy, license holders may not carry a concealed handgun in restricted locations. For a list of locations and Frequently Asked Questions, please refer to the Campus Carry page at: <http://www.southplainscollege.edu/campuscarry.php> Pursuant to PC 46.035, the open carrying of handguns is prohibited on all South Plains College campuses. Report violations to the College Police Department at 806-716-2396 or 9-1-1.

SPC Bookstore Price Match Guarantee Policy: If you find a lower price on a textbook, the South Plains College bookstore will match that price. The difference will be given to the student on a bookstore gift certificate! The gift certificate can be spent on anything in the store.

If students have already purchased textbooks and then find a better price later, the South Plains College bookstore will price match through the first week of the semester. The student must have a copy of the receipt and the book has to be in stock at the competition at the time of the price match.

The South Plains College bookstore will happily price match BN.com & books on Amazon noted as *ships from and sold by Amazon.com*. Online marketplaces such as *Other Sellers* on Amazon, Amazon's Warehouse Deals, *fulfilled by Amazon*, BN.com Marketplace, and peer-to-peer pricing are not eligible. They will price match the exact textbook, in the same edition and format, including all accompanying materials, like workbooks and CDs.

A textbook is only eligible for price match if it is in stock on a competitor's website at time of the price match request. Additional membership discounts and offers cannot be applied to the student's refund.

Price matching is only available on in-store purchases. Digital books, access codes sold via publisher sites, rentals and special orders are not eligible. Only one price match per title per customer is allowed.

Note: The instructor reserves the right to modify the course syllabus and policies, as well as notify students of any changes, at any point during the semester.

BUSI 2305-151/451: Business Statistics Tentative Class Schedule

Week	Date	Topic	Chapter
1	Jan 18	1.1 Statistical and Critical Thinking 1.2 Type of Data 1.3 Collecting Sample Data 1.4 Introduction to Excel	Ch 1
2	Jan 24	2.1 Frequency Distributions for Organizing and Summarizing Data 2.2 Histogram	Ch 2
3	Jan 31	3.1 Measures of Central 3.2 Measures of Variation 3.3 Measures of Relative Standing and Boxplots	Ch 3
4	Feb 07	2.4 Scatterplots, Correlation, and Regression 10.1 Correlation 10.2 Regression	Ch 10 & Ch 2.4
5	Feb 14	Exam 1 (Ch 1, 2, 3, & 10)	
6	Feb 21	4.1 Basic Concept of Probability 4.2 Addition Rules and Multiplication Rule 4.3 Complements, Conditional Probability and Bayes' Theorem	Ch 4
7	Feb 28	<i>Ch 4 continued</i> 5.1 Probability Distribution 5.2 Binomial Probability Distribution	Ch 5
8	Mar 07	<i>Ch 5 continued</i>	
9	Mar 14	SPRING BREAK – NO CLASS (03/14 – 03/18)	
10	Mar 21	6.1 The Standard Normal Distribution 6.2 Real Applications of Normal Distributions 6.3 Sampling Distribution and Estimators 6.4 The Central Limit Theorem	Ch 6
11	Mar 28	Exam 2 (Ch 4, 5 & 6)	
12	Apr 04	7.1 Estimating a Population Proportion 7.2 Estimating a Population Mean	Ch 7
13	Apr 11	8.1 Basic of Hypothesis Testing 8.2 Testing a Claim about a Proportion 8.3 Testing a Claim about a Mean	Ch 8
14	Apr 18	9.1 Two Proportions 9.2 Two Means: Independent Samples 9.3 Matched Pairs	Ch 9
15	Apr 25	Exam 3 (Ch 7, 8 & 9)	
16	May 02	12.1 One-Way ANOVA 12.2 <i>Two-Way ANOVA</i>	Ch 12
17	May 11	Final Exam (Comprehensive) Ch 1, 2, 3, 4, 5, 6, 7, 8, 8, 9, 10 and 12	