

South Plains College Department of Mathematics and Engineering

Math 1442.001: Business Statistics TR 1:00 – 2:45 AG 105

Spring 2019 Course Syllabus

Instructor: Jennifer K Bartlett

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Office: Levelland Campus Math 113

Office Hours: Mondays & Wednesdays 11:00-1:30,

Telephone: (806) 716-2664

Fridays 9:00-12:00, or by appointment

Prerequisites: College Algebra (Math1314), Math Analysis I (Math1324), or consent of instructor

Credit: 4 hours

Lecture: 3 hours

Lab: 3 hours

This course satisfies a math requirement for Business Majors and some nursing majors (BSN)

Course Description: This course is an introduction to the techniques of collection, presentation, analysis, and interpretation of numerical data. Applications of correlation methods, analysis of variance, dispersion, sampling, quality control, reliability, and mathematical models will be covered. This course may require lab time on the computer using EXCEL.

Course Objectives: The purpose of this course is to provide a transferable course in the elements of business statistics. Upon completion of this course and receiving a passing grade, the student will demonstrate mastery of the following concepts:

1. represent raw data using frequency distributions
2. represent raw data using stem & leaf plots, ogives, histograms, bar graphs, and pie charts
3. calculate measures of central tendency, variation, and position for both grouped and ungrouped data and interpret in writing the significance and meaning of the calculations
4. calculate coefficients of variation and skewness and interpret in writing the significance of the calculations
5. calculate classical and empirical probabilities
6. apply binomial, Poisson, and normal distribution properties to calculate probabilities and interpret in writing the significance of the calculations
7. calculate mean, variance, and standard deviations of probability distributions and interpret in writing the significance of test results
8. evaluate a hypothesis testing situation to determine the appropriate test to be used
9. use parametric and non-parametric tests for hypothesis testing and interpret in writing the significance of test results
10. calculate simple and multiple linear regression equations and use equations to make predictions
11. calculate coefficients of correlation, determination, and non-determination and interpret in writing the significance of the calculations
12. use a computer statistics program and/or a statistical calculator to help with computations

Course Materials:

- Textbook: *Elementary Statistics using EXCEL*, by Mario Triola, 6th Ed., published by Pearson
Book Options (All 3 options include access to the electronic version of the book)
 - 1) Purchase a new physical book that includes a pre-paid web access code.
(physical book and e-book)
 - 2) Purchase a used book, then purchase the web access code separately on www.pearson.com/mylab.
(physical book and e-book)
 - 3) Do not purchase a physical book; purchase only the web access code directly from www.pearson.com/mylab.
(no physical book; only e-book)

Note: No matter how you are going to pay for the access code, MyStatLab does allow a grace period/temporary access for about 14 days where you don't have to pay for the access. Go ahead and get registered for the course on MyStatLab under the grace period and just make sure to enter your access code before the grace period ends.

- Calculator: 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 others are also acceptable. Any other graphing calculator, you will need to read you manual to determine how to make the processes work. Cell phones and similar devices may NOT be used as calculators and no sharing of calculators is allowed. If you have any questions about your calculator, check with the instructor immediately.
- Working, reliable internet access

Methods of Learning Assessment: Students will be continually assessed throughout the course via in-class group work, questioning, and board work. Other methods of assessment include:

- **Attendance:** Attendance and effort are crucial for success in this course. It is your responsibility to make sure that I have marked you present for each class. Class attendance may be taken at any time during the class period, so please do not arrive late or leave early. Leaving early and being tardy will be considered ½ absence. You may be dropped from this course with a grade of X or F if you are absent four consecutive days or if you accrue five absences for any reason throughout the semester. Absences are not classified as ‘excused’ or ‘unexcused’. If you should incur an absence, please refer to your syllabus, contact the instructor, or contact another student to get the assignment completed BEFORE the next class. Late homework is not an option. The last day for student-initiated drops is Thursday, April 11th.
- **Homework:** Homework will be assigned at each class meeting. The homework is not a tool by which I torture you, but rather an opportunity for you to practice the skills presented in class which you will be responsible to demonstrate on a quiz the following class period. If you are interested in passing the class, you will need to do well on the exams. To do well on the exams, you will need to complete and understand the homework. Homework will be assigned online through MyStatLab: www.pearson.com/mylab. Our course ID is **bartlett99457**. Please see the MyStatLab instructions below for more information. Typically the online homework assignments are due at 12:15 pm and allow up to 5 attempts per problem, accepting the best score of these attempts. I suggest you do these online problems as a minimum. I strongly encourage you to work more problems from the book (hard copy book or electronic version) for sufficient practice for the exams. Homework dates are subject to change so please check the online due dates often. Remember your effort is key to your success. You have to focus your effort on being able to complete the problems on a quiz/exam without any outside resources.
- **Excel Assignments:** Some assignments you will need to complete using Excel. When grading these projects, neatness and presentation will count.
- **Exams:** Exams must be taken in pencil during the normal class period. Students are not allowed to leave the examination room until they have turned in their test for grading. The tentative exam dates are as follows:
 - Exam 1: Thursday, February 14th Chapters 1, 2, 3, & 10
 - Exam 2: Tuesday, March 26th Chapters 4, 5, & 6
 - Exam 3: Tuesday, April 23rd Chapters 7, 8
- **Final:** The comprehensive final will be given on Tuesday, May 7th from 1:00 – 3:00 as directed by the official South Plains College Schedule. No make-up final will be given. The final will cover all material covered in-class including chapters 1, 2, 3, 10, 4, 5, 6, 7, 8, 9.
- **Make-up:** Make-up work is given at the discretion of the instructor. NO make-up tests 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 quiz or exam BEFORE the next class period. Students who do not take exams in-class, early or late, forfeit the right to attempt any extra credit on that exam.

Grading Policy:

Daily Work (HW, labs)	16%
Excel Assignments:	10%
Exams (3 total)	18% each (total of 54%)
Comprehensive Final	20%

Grading Scale:

90-100%	A
80-89%	B
70-79%	C
60-69%	D
Below 60%	F

This course and its grade will be recorded on your official transcript. Grades will be posted on Blackboard during the semester usually after exams.

Student Responsibilities and Expectations:

1. Come to class on time and prepared to learn. (Pencils, homework, notebook, calculator)
2. Read the syllabus.
3. Take notes, participate in class, and complete course assignments early enough to seek help if needed.
4. Food and drink are not allowed in class, with the exception of bottled water.
5. Cell phones and any other electronic devices must be silenced and put away before entering the classroom. Use of these devices during class will result in a zero for that day’s quiz, homework, or exam.
6. Be courteous and respectful to your instructor and classmates at all times.
7. Use only pencil for all written assignments.

Resources:

- I am your first and BEST resource for this class! Feel free to come by during my office hours or email me at jkbartlett@southplainscollege.edu .
- Blackboard is the online course management system that will be used for this course. The course syllabus as well as any other class handouts can be accessed through Blackboard. Login at <http://southplainscollege.blackboard.com> . The user name and password should be the same as the MySPC and SPC email.
User name: first initial, last name, and last 4 digits of the Student ID
Password: Original Campus Connect Pin No. (found on SPC acceptance letter)
- Free tutoring is available in M116 on the Levelland campus. Hours for the tutors will be posted by the door of M116.
- Form study groups: Networking is an essential tool both in the classroom and in the workforce!
- Your book that you have already purchased.
- Websites that contain helpful videos:
patrickjmt.com
khanacademy.com

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 Center 806-716-2577, Reese Center (also covers ATC) Building 8: 806-716-4675, Plainview Center Main Office: 806-716-4302 or 806-296-9611, or the Health and Wellness main number at 806-716-2529.

Religious Holy Days: In accordance with Section 51.911, Texas Education Code, South Plains College will allow a student who is absent from class for the observance of a religious holy day to take an examination or complete an assignment scheduled for that day within seven (7) calendar days after the absence. Students are required to file a written notification of absence with each instructor within the first fifteen (15) days of the semester in which the absence will occur. Forms for this purpose are available in the Student Services Office along with instructions and procedures. "Religious holy days" means a holy day observed by a religion whose place of worship is exempt from property taxation under Section 11.20, Tax Code. (copied from current South Plains College catalog)

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.

Non-Discrimination Statement: 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.

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, please refer to the SPC policy at: (http://www.southplainscollege.edu/human_resources/policy_procedure/hhc.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.

Sexual Misconduct Statement: As a faculty member, I am deeply invested in the well-being of each student I teach. I am here to assist you with your work in this course. If you come to me with other non-course-related concerns, I will do my best to help. It is important for you to know that all faculty members are mandated reporters of any incidents of sexual misconduct. That means that I cannot keep information about sexual misconduct confidential if you share that information with me. Crystal Gilster, the Director of Health & Wellness, can advise you confidentially as can any counselor in the Health & Wellness Center. They can also help you access other resources on campus and in the local community. You can reach Ms. Gilster at 806-716-2362 or email cgilster@southplainscollege.edu or go by the Health and Wellness Center for assistance. You can schedule an appointment with a counselor by calling 716-2529.

4.1.1.4 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 Crystal Gilster, Director of Health and Wellness at 806-716-2362 or email cgilster@southplainscollege.edu for assistance.

MyStatLab Instructions:

To access MyStatLab where your online homework/quizzes are located, go to www.pearson.com/mylab. You will need the following information:

Course ID: **bartlett99457**

Student Access Code: This can be found in the MyStatLab kit inside the front cover of your new textbook or you can purchase access online with a credit card during the registration process.

Email Address

To Register and Enroll:

- 1) Go to www.pearson.com/mylab and click the Register button in the Students Area.
- 2) Follow the onscreen instructions to register and enroll. Remember, if you received the MyStatLab kit with your textbook, you do not need to purchase access online. Your student access code is included in the kit. If you did not purchase the textbook with the kit included, you will need to purchase access online using a credit card.
- 3) During the registration process, you will design a username and password. Consider using the same username and password you use for SPC. Whatever your username and password, be sure you don't forget it.
- 4) After logging in to the course for the first time, you will need to install the proper plug-ins for the graphics and videos to work on your computer. If the installation wizard does not start automatically, locate the link called "MyStatLab Installation Wizard", and follow the instructions. This will take 20 to 30 minutes.
- 5) Once all the plug-ins are installed with the Installation Wizard and you have logged into the class, click the link "How to Enter Answers Using the MathXL Player" and watch the video that follows.
- 6) Now you are ready to access your online homework. Inside the class, click "Do Homework" on the left side of the page, and begin! Also note, you can view your homework grades under the button called "Gradebook."

Other things about MyStatLab:

- 1) Assignments will close at 12:15pm the night they are due. You will be given an adequate amount of time to complete each assignment, so late homework will NOT be accepted and due date will NOT be extended for any reason. Because computer/internet problems can occur, I recommend you begin your homework assignments early!
- 2) MyStatLab has a 14 day grace period, during which you can use MyStatLab without purchasing access. This means you have plenty of time to purchase a code, for your paycheck to come in, or for financial aid to be processed and complete the assignments in MyStatLab. I will not accept not having a code as an excuse for late or incomplete homework.
- 3) The access code is good for the life of the textbook edition we are using. If you are repeating this course, you only need the class key below to add this class. You do not need to purchase a new access code. So don't forget your MyStatLab username and password the minute you complete the final this semester.
- 4) You must have Adobe Reader and Flash to use MyStatLab. For a full list of system requirements, you can search for "system requirements" through MyStatLab's help function.
- 5) MyStatLab's help function is really useful. Please make use of their "Student Support" if you have any technical questions about MyStatLab (getting into the class, completing your homework assignments, accessing your account, etc.). If you have already made use of this support and still need additional assistance, please feel free to contact me by email or come by my office during my office hours.
- 6) Most MyStatLab assignments will be due on Fridays and Sundays, but you should pay close attention to the course calendar and online due dates, which are subject to change, to make sure you complete all assignments on or before their due dates.
- 7) You may work ahead in this course, and it is recommended that you do just in case you get sick, have computer problems, or life in general happens.

Business Statistics Tentative Course Outline

Tuesday & Thursday MATH 1442.001

Lecture 1:00 – 2:15 Lab 2:15 – 2:45 AG105

Week	Day	Date	Lesson / Tentative Assignment	Homework Due
1	Tuesday	Jan15	Syllabus, 1.1, 1.2	
	Thursday	Jan 17	<i>Last Day to Add</i> 1.3, Lab	
2	Monday	Jan 21	<i>No School – Labor Day</i>	
	Tuesday	Jan 22	2.1, 2.2 Excel 1: Histogram Lab	
	Thursday	Jan 24	2.3, 2.4	
3	Tuesday	Jan 29	3.1, 3.2, Excel 2: Descriptive Stats Lab	
	Thursday	Jan 31	3.3	
4	Tuesday	Feb 5	10.1, 10.2	
	Thursday	Feb 7	10.3, Excel 3: Regression Lab	
5	Tuesday	Feb 12	Review	
	Thursday	Feb 14	Exam 1: Chapters 1, 2, 3, 10	
6	Tuesday	Feb 19	4.1, 4.2	
	Thursday	Feb 21	4.3	
7	Tuesday	Feb 26	Chapter 4	
	Thursday	Feb 28	5.1, 5.2, Excel 4: Discrete Probability Distribution Lab	
8	Tuesday	March 5	Chapter 5	
	Thursday	March 7	6.1	
	Mon-Fri	March 11 March 15	<i>Spring Break</i>	
9	Tuesday	March 19	6.2	
	Thursday	March 21	Review	
10	Tuesday	March 26	Exam 2: Chapter 4, 5, 6	
	Thursday	March 28	7.1	
11	Tuesday	April 2	7.2, Excel 5: Confidence Interval Lab	
	Thursday	April 4	8.1	
12	Tuesday	April 9	8.2	
	Thursday	April 11	<i>Last Day to Drop</i> 8.3	
13	Tuesday	April 16	Chapter 7 & 8 Worksheet	
	Thursday	April 18	Review	
14	Tuesday	April 23	Exam 3 – Chapter 7, 8	
	Thursday	April 25	<i>Last Day to Drop</i> 9.1, 9.2	
15	Tuesday	April 30	9.3	
	Thursday	May 2	Review for Final, Excel Final Project	
16	Tuesday	May 7	Final Exam 1:00 – 3:00	