

Math 1342.201MTWR Syllabus
Statistical Methods
Summer I, 2022
4pm – 5:55pm RC221

Instructor: Mrs. Morgan Groves
Email: mgroves@southplainscollege.edu
Office: 223F – Reese Building 2
Office Phone: 716-2735

Office Hours: By appointment only

Course Structure

- Flipped course
 - Watch lecture video (Blackboard) and fill in notes **before** class each day.
 - Students provide questions in class to discuss and solidify topics over the lesson(s).
 - Homework is to be attempted before class, also, but will not be due that day.
 - Assessments, such as labs, quizzes, and exams, will all be done in class.
 - All students are expected to be physically in class unless given explicit permission to be virtual.

Textbook

- No physical book required, but is optional.
- *Elementary Statistics: Picturing the World 7/e*, Farber, Betsy | Larson, Ron. Pearson. ISBN-13: 9780134683416.
- Will need the MyStatLab access, however.

Course Requirements/Materials

- Attend all classes with notes and homework done in advance.
- All graded assessments assigned in class are expected to be completed in the allotted class time, unless otherwise instructed by the professor.
- Reliable internet access
- Printer (for notes), but notes can be done electronically (tablet/ipad) as long as they are written by hand
- Smart phone and/or scanner to turn a written document into a PDF file
- Access paid to MyStatLab for homework assignments

Grading:	Tests (3 total)	50%	<u>Grading Scale:</u>	A 90-100
	Homework	7%		B 80-89
	Participation	7%		C 70-79
	Labs/Quizzes	16%		D 60-69
	Final Exam	20%		F 59 or below

***Note: Students must justify answers or show work on all problems to receive full credit.

Class Notes

- Found on Blackboard under Course Content.
- Should be completed by each student (hand-written) using lecture videos provided on Blackboard.
- Must have completed notes uploaded back to Blackboard before the start of each class.
- Bring all notes to class each day (2-3 in binder recommended)

Lecture Videos

- Found on Blackboard under Course Content.
- Watch and fill in the notes, pausing often to allow for processing time.
- Organize your questions to bring to class the next day.

Homework

- All homework assignments will be on MyStatLab, an online homework system, that is access through Blackboard.
- Homework is to be completed by the due dates posted on each assignment.
- No late homework will be accepted.
- The use of any statistical solving apps/programs (i.e. PhotoMath, etc.) is strictly prohibited and can result in academic dishonest proceedings.
- All work in this class must be your own!!
- Three low homework grades will be dropped at the end of the semester.

Labs/Quizzes

- Daily, as time allows
- Can use notes on Lab, but not on Quizzes
- Quizzes – can use a hand-written 3x5 notecard
- If notes were not done before class and/or were not brought to class, the student forfeits the right to ask for help on the lab assignment that day.
- Complete in allotted class time.

Tests

- 3 midterm exams and one comprehensive final exam.
- No notes/homework/textbooks will be allowed on ANY exam.
- Certain formula sheets will be allowed and provided by your instructor.
- All exams are expected to be completed in the allotted class time, no exceptions.
- No exam grades will be dropped.
- It is in your best interest to save ALL graded documents until your final grade is assigned at the end of the term.

Final Exam

- Comprehensive
- Failure to show up for the scheduled final will result in an F in the course, regardless of average at time of final exam.
- No make-up final exam will be offered.
- The final exam will be held on **Friday, July 8th from 4pm to 6pm.**

Late work

- Late work is not accepted.
- If you do not turn in an assignment on time, you will receive a zero for that assignment.

Office Hours

- Office hours are intended for the benefit of students, to give them a chance to get some extra help whenever needed.
- During summer terms, office hours are by appointment only. To make an appointment, email the instructor to request a time.

Attendance Policy

- Attend at least eighty percent (80%) of the **total** class meetings **and** submit at least eighty percent (80%) of the **total** class assignments.
- If the student fails to meet these minimum requirements, the instructor may remove the student from the class with an X, upon the discretion of the instructor.
- Be in the class room and on time for class each class
- Abuse of virtual component → instructor may drop the student from the course
- There are no excused absences, even with a doctor's note.
- 10+ minutes late or leave early without permission → 25% off participation grade
- Falling asleep during class or leaving class for extended period of time, as determined by the instructor → 25% or more of their participation grade lost for that day.

Participation Grade

- Daily participation grade.
- 50% attendance to/participation in class
- 50% for watching the lecture video(s) prior to class, completing the lecture notes properly, and uploading them to Blackboard prior to class each day.
- If there are any questions that students must answer in the lecture videos, the completion of these questions will be part of the participation grade (Preparedness) as well.
- In the event you are absent during class, you will get 0 pts for the Attendance/Promptness portion of this grade for that day, even if you have a doctor's note.

Class Participation

	Unacceptable 0 points	Acceptable 0.25 points	Exemplary 0.50 points	Score
Attendance/Promptness	The student is absent	The student is more than 10 minutes late to class	The student is on time for class	
Preparedness	The student did not complete any lecture examples from the assigned videos	The student completed only a portion of the lecture examples completed on the assigned videos	The student completed all lecture examples in the lecture material	
Total Score Max = 1 point (100%) Min = 0 point (0%)				

Submitting Documents Online

- Students will be required to upload their completed notes to Blackboard.
- Single PDF file that is clear and legible
- Students are allowed to use whatever hardware/software they desire to create the PDF files, but here are a few suggestions:
 - App: **GeniusScan** – need a Google email to do this for free
 - App: **CamScanner** – limit on number of pages that can be compiled on the free version
 - Apple Phone – has a program on it already that will compile pictures into PDF files

Academic Integrity

- Any student involved in cheating will receive a zero on the assignment(s) and will be informed of why he/she received a zero.
- Second offence: student will be dropped from the course and an academic dishonesty report will be filed against the student, which goes on the student's permanent school record.

Calculators

- Need a graphing calculator!!
- I recommend a TI 84 series calculator.
- TI NSpires or Casios are NOT recommended unless you are an expert at using them, as the instructor will be of little help. If you plan to use one of these calculators, you should expect to do a lot of research into how to perform certain calculations.

Make-up Work

- Make-up work is given at the discretion of the instructor.
- NO make-up labs, quizzes, or tests are given without prior notification AND proper documentation.
- If you are absent from class and have given prior notification and proper documentation of your absence, you **MUST** make arrangements to take the lab, quiz, or exam **BEFORE** the next class period.
- Students who do not take labs, quizzes, or exams in-class, early or late, forfeit the right to attempt any extra credit on that quiz or exam.

Class Rules:

- Be on time and ready to learn. Students that are more than 10 minutes late will be counted tardy. If promptness becomes a regular issue, as deemed by the instructor, the student may be dropped from the class.
- Use only pencil or erasable pen on all graded hand-written assignments.
- Students are not permitted to use electronic devices, other than a calculator, in class. **Put the cell phones away!!**
- During testing, all cell phones should be placed on SILENT or turned off and placed on the table face down. All smart watches need to be removed and placed on the table face-down.
- Any student who leaves the classroom for any reason (bathroom, phone call, etc.) during an exam will not be allowed to continue the exam upon their return. Once you leave the classroom during an exam, you are done.

- Any student who falls asleep will be counted absent that day, and may be asked to leave.
- Any student who does not focus on the lesson and/or participate in the discussions will be counted absent that day, and may be asked to leave.
- Students are expected to help facilitate a positive learning environment. Any student that chooses to behave in such a way that takes away from the positive learning environment will be asked to leave that day. If the behavior continues, the student may be dropped from the class.
- Adhere to the requirements of the Student Code of Conduct.

Virtual Students

- In the event you are joining class virtually, you are expected to stay active and attentive during the entire class.
- In the event of a lab, quiz, or test, you are expected to have your camera on and positioned in such a way as to allow the camera to catch both your face and your workspace.
- Keep your camera on until you have explicit permission from your instructor to turn it off.
- Your cell phone should be on silent, face down but in view of the camera during the entire assessment.
- Students are expected to follow the same testing/quizzes/lab rules as any student in class.
- If you leave the view of the camera during an assessment without explicit permission from the instructor, you will be given a 0 on the assessment.
- If you break any of the rules listed above, you will receive a 0 on the assessment.
- Keep your chat window on Blackboard Collaborate open during assessments as a way for the instructor to communicate (quietly) with each student.
- If the student does not keep their chat window visible to themselves during assessments and misses a message from the instructor, 15% credit will be deducted from that assignment's score.
- Students who are virtual for an assessment have been given explicit permission by the instructor to take the assessment in this format.
- If you are not given this permission, you are expected to be in class for each and every assessment (labs, quizzes, tests).
- Instructor permission is not given lightly nor liberally and the decision to allow a student to work virtually is entirely at the instructor's discretion.
- To submit work virtually, students must upload a single PDF document of their work using an app such as **GeniusScan**, or similar. It is the student's responsibility to ensure the document is legible and in the correct format.
- Any assignment not submitted in the correct format will be given a 0 on the assignment.
- Assignments will usually be uploaded to Blackboard, but can be e-mailed with instructor permission.

South Plains College
Common Course Syllabus: MATH 1342

Department: Mathematics, Engineering, and Computer Science

Discipline: Mathematics

Course Number: MATH 1342

Course Title: Statistical Methods

Available Formats: conventional/flex and internet

Campuses: Levelland, Reese, Plainview, Lubbock Center and Dual Credit

Course Description: Collection, analysis, presentation and interpretation of data, and probability. Analysis includes descriptive statistics, correlation and regression, confidence intervals and hypothesis testing.

Prerequisite: Minimum score of 350 on the TSIA, TSI-exempt status, or a successful completion with a grade of 'C' or better in MATH 0337.

Credit: 3 **Lecture:** 3 **Lab:** 0

Textbook: *Elementary Statistics: Picturing the World 7/e*, Farber, Betsy | Larson, Ron. Pearson. ISBN-13: 9780134683416.

Supplies: Please see the instructor's course information sheet for specific supplies.

This course partially satisfies a Core Curriculum Requirement: Mathematics Foundational Component Area (020)

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. Explain the use of data collection and statistics as tools to reach reasonable conclusions.
2. Recognize, examine and interpret the basic principles of describing and presenting data.
3. Compute and interpret empirical and theoretical probabilities using the rules of probabilities and combinatorics.
4. Explain the role of probability in statistics.

5. Examine, analyze and compare various sampling distributions for both discrete and continuous random variables.
6. Describe and compute confidence intervals.
7. Solve linear regression and correlation problems.
8. Perform hypothesis testing using statistical methods.

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: There will be departmental final exam questions given by all instructors.

Attendance 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](mailto: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.

Tentative Calendar for Math 1342 MTWR – Summer 1, 2022				
Week	Day	Date	Topic	Notes & HW
1	Monday	June 6	Introduction/Syllabus	Prepare for tomorrow!!
	Tuesday	June 7	An Overview of Statistics; Data Classification, Data Collection and Experimental Design	1.1 – 1.3
	Wednesday	June 8	Frequency Distributions and Their Graphs, More Graphs and Displays	2.1 – 2.2
	Thursday	June 9	Measures of Central Tendency, Measures of Variation, Measures of Position	2.3 – 2.5
2	Monday	June 13	Basic Concepts of Probability and Counting, Conditional Probability and the Multiplication Rule	3.1 – 3.2
	Tuesday	June 14	The Addition Rule, Additional Topics in Probability and Counting	3.3 – 3.4
	Wednesday	June 15	Review	
	Thursday	June 16	Exam 1	Units 1 - 3
3	Monday	June 20	Probability Distributions, Binomial Distributions	4.1 – 4.2
	Tuesday	June 21	Intro to Normal Distributions and Standard Normal Distributions, Finding Probabilities	5.1 – 5.2
	Wednesday	June 22	Normal Distribution: Finding Values, Sampling Distributions and The Central Limit Theorem	5.3 – 5.4
	Thursday	June 23	Confidence Intervals for the Mean (Sigma Known), Confidence Intervals for the Means (Sigma Unknown), Confidence Intervals for Population Proportions	6.1 – 6.3
4	Monday	June 27	Exam 2	Units 4 - 6
	Tuesday	June 28	Introduction to Hypothesis Testing, Hypothesis Testing for Mean (Sigma Known)	7.1 – 7.2
	Wednesday	June 29	Hypothesis Testing for Mean (Sigma Unknown), Hypothesis Testing for Proportions	7.3 – 7.4
	Thursday	June 30	Correlations, Linear Regression	9.1 – 9.2
5	Monday	July 4	4th of July Holiday – No Class	
	Tuesday	July 5	Measures of Regression and Prediction Intervals	9.3
	Wednesday	July 6	Exam 3	Units 7 - 9
	Thursday	July 7	Review	
	Friday	July 8	Final Exam	Comprehensive

*Last Day to drop: June 30th