Syllabus for

Mathematics 1342 Statistical Methods/Sections 364, 365 Fall 2025

Instructor of Record: Dr. Paul M. Tunstall Jr Office Hours: during regular school hours

Room LCHS Room 606 Phone: (806) 993-2321 ext. 21606 Email: ptunstall@lcisd.net

Course Description: MATH 1342 Statistical Methods (3:3:0) Collection, analysis, presentation and interpretation of data, and probability. Analysis includes descriptive statistics, correlation and regression, confidence intervals and

hypothesis testing. Semester Hours: 3 Lecture Hours: 3 Lab Hours: 0

Pre-requisite: MATH 0320 or two units of high school algebra.

Note: This course satisfies a **020 Mathematics** Core Curriculum requirement.

Reference Textbook:

Illowsky, B.; Dean, S.; *Introductory Statistics 2e*; openstax.org; Rice University; Houston, TX; Digital Version ISBN-13: 978-1-961584-32-7, 2023.

Attendance: Attendance and effort are the most important activities for success in this course. Class attendance may be taken at any time during the class period, so please do not be late or leave early. You may be dropped from this course with a grade of X or F if you are absent four (4) consecutive classes or if you exceed six (6) absences throughout the semester. Special circumstances will be considered.

Course Objectives: Successful completion of this course should reflect mastery of the following objectives:

- 1. Descriptive Statistics
- 2. Regression Analysis
- 3. Probability & Discrete Random Variables
- 4. Normal Distributions

- 5. Statistical Estimations
- 6. Hypothesis Testing
- 7. Technology

Core Objectives:

Communication Skills: Effective development, interpretation, and expression of ideas through written, oral, and visual communication.

Critical Thinking: Creative thinking, innovation, inquiry, analysis, evaluation, and synthesis of information.

Empirical and Quantitative Competency Skills: The manipulation and analysis of numerical data or observable facts resulting in informed conclusions.

GeneralStudent 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, & compare various sampling distributions for discrete/continuous random variables.
- 6. Describe and compute confidence intervals.
- 7. Solve linear regression and correlation problems.
- 8. Perform hypothesis testing using statistical methods.

Grading Policies*

Grading Scale	90 or abov	re A		
	80 to 89	В		
	70 to 79	C	*Not	es:
	59 and Be	low F	1) St u	idents must justify answers or show
Assignment Weights Ma	jor Test Grades	60% of 86%	work on all p	problems to receive full credit.
		Daily Grades	40% of 86%	2) These weights may vary slightly from
		Exam Grade	14%	your high school grade in this course.
	Semester (Grade is 86% +	14% =100%	

Finality of Grades

The Final Semester Grade cannot be changed once submitted to the SPC registrar. A grade of C (70%) or above is required to advance to the next course

Course Evaluation: There will be final exam given by all instructors which may not be exempted.

<u>Student Learning Outcomes Assessment</u>: A diagnostic test and a pre- and post-test questions may be used to determine the extent of improvement that the students have gained during the semester.

Supplies

A supply of pencils, pens, and one or more folders for keeping and completing assignments, taking notes, etc., will be needed.

Academic Honesty & Equal Opportunity

Students are expected to uphold the ideas of academic honesty as noted in the common course syllabus. All work that is graded must be your own. This policy applies to all work attempted in this course. If this policy is violated the student will receive an F for the assignment and will be dropped with an **F**. For more details on what is considered cheating, see the South Plains College catalog.

As noted in the common course syllabus, South Plains College strives to accommodate the individual needs of all students in order to enhance their opportunities for success in the context of a comprehensive community college setting. It is the policy of South Plains College to offer all educational and employment opportunities without regard to race, color, national origin, religion, gender, disability, or age.

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

- 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;
- Cutting and pasting together information from books, articles, other papers, or online sites without providing proper documentation;
- Using direct quotations (three or more words) from a source without showing them to be direct quotations and citing them; or
- Missing in-text citations.

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

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

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.

<u>Diversity Statement</u>: 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.

Disabilities 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.

Expectations of the Instructor for the Student

The instructor is within all rights to expect that the student do the following:

Show up on time, as scheduled, to receive and learn all information pertinent to the course and be mindful
of any schedule changes.

- If you are going to drop this or any other SPC course, *all drops must be completed*
 - **by December 1 of 2025**. There will be no drops given after this date.
- Read the syllabus! You will remain subject to the criteria outlined herein whether you read this or not, so it is in your best interest to do so! Take advantage of all resources available to you. In the collegiate setting, all students are considered adults and are expected to uphold conduct worthy of such consideration.
- Be mindful of the classroom setting and the roles therein. While student tuition is vital to the well-being of this academic institution, this does not warrant the concession of any instructor to you in a manner that compromises the integrity of the classroom setting and that of the institution itself. Bring all materials needed for the course and refrain from bringing anything that is not needed. This allows you to pay attention to the subject matter only and shows the instructor that you are prepared to learn.
- Be willing to work together with but not do work for fellow classmates. Networking is an essential tool both in the workforce and the in the classroom; furthermore, the greater the number of minds there are involved, the less mental labor is required for each individual.
- Keep all homework assignments organized in a folder or binder. Online assignments must be completed in your folder. This will prove to be helpful in preparing for the exams. Write all graded work legibly and generally in pencil. Work early enough to get help if needed.
- Turn all electronic devices off that have no use in the classroom setting. If an unsanctioned device is in use inappropriately during an exam, then its grade will be zero percent (0%).
- Electronic devices will be used for their initial intended function only.
- Students may obtain missed information and assignments from a fellow classmate as necessary.

<u>Coursework:</u> Classwork is expected to be done as assigned. Most of the work in this class can be finished in class, but occasionally assignments may need to be completed at home. Written assignments may also be given as necessary where long-form answers are required. Any long-form answers must have all work shown in an organized fashion, and all answers must be given in complete, grammatically correct sentences that convey a logical thought process and answer the question or address the issue.

College Attendance Policy: Attendance and effort are the most important activities for success in this course. Records of your attendance are maintained throughout the semester. Five (5) absences, for any reason, are allotted to the student for the semester. Tardies count as one-half (1/2) of an absence. Tardies will be applied for consistently being late to class, as deemed by the instructor and leaving class early. If this number is exceeded, the instructor has the right to drop you with a grade of F or an X, depending on their discretion.

Non-Discrimination 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 parenting (paternal or maternal) with children under the age of 18 per Texas Education Code 51.982 and Title IX you have a right to reasonable accommodations to help continue your education. To activate accommodations you must submit a Title IX pregnancy and parenting accommodations request, along with specific medical documentation, to the Health and Wellness Center. 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 Health and Wellness Center at 806-716-2529 or email rcanon@southplainscollege.edu for assistance.

Campus Concealed Carry: Texas 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. 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.

Intellectual Exchange Statement: In South Plains College courses, the instructor will establish and support an environment that values and nurtures individual and group difference 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 intellectual exchange, we will not only mirror society as it is, but also model society as it should.

<u>Disabilities Statement</u>: Students with disabilities, including but not limited to physical, psychiatric, or learning disabilities, who wish to request accommodations 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, Lubbock Centers (located at the Lubbock Downtown Center) 806-716-4675, or Plainview Center (Main Office) 806-716-4302.

CARE (Campus Assessment, Response, and Evaluation) Team: South Plains College is committed to ensuring the safety, health, and well-being of its students and community. To support its campus community SPC has a CARE Team. This is a dedicated group of campus professionals responsible for assessing and responding to students who could benefit from academic, emotional, or psychological support, as well as those presenting risk to the health or safety of the community. If you see someone experiencing challenges, appearing distressed, posing a threat to their safety or someone else's safety, or causing a significant disruption to the SPC community, please submit a CARE Team referral. You may also submit a referral for yourself if you would like additional support. NOTE: In cases where a person's behavior poses an imminent threat to you or another, contact 911.

<u>COVID-19 (Rev. 3/18/2024)</u>: If you are experiencing any of the following symptoms, please do not attend class and either seek medical attention or get tested for COVID-19.

- Cough, shortness of breath, difficulty breathing
- Fever or chills
- Muscles or body aches
- Vomiting or diarrhea
- New loss of taste and smell

Please also notify DeEtte Edens, BSN, RN, Associate Director of Health & Wellness, at dedens@southplainscollege.edu or 806-716-2376

- 1. SPC will follow the recommended 3-day isolation period for individuals that test positive.
 - a. Please note that day 0 is the date of positive test. Day 1 begins the first full day after the date of positive result.
- 2. COVID reporting
 - a. Please have students and employees notify DeEtte Edens if they have tested positive to verify dates before returning to class or work.
 - b. The home tests are sufficient but students need to submit a photo of the positive result. The date of test must be written on the test result and an ID included in the photo. If tested elsewhere (clinic, pharmacy, etc.), please submit a copy of the doctor's note or email notification. Results may be emailed to DeEtte Edens, BSN, RN at dedens@southplainscollege.edu.
 - c. A student is clear to return to class without further assessment if they have completed:
 - The 3-day isolation period, symptoms have improved and
 - they are afebrile for 24 hours without the use of fever-reducing medication.
- 3. Please instruct students and employees to communicate with DeEtte Edens prior to their return date if still symptomatic at the end of the 3-day isolation.
- 4. Exposed individuals will not be required to quarantine. If exposed, SPC does request individuals closely monitor themselves. If an individual does become symptomatic, please do not attend class or work and be tested.

Artificial Intelligence Statement: · Purpose of Artificial Intelligence (AI) Applications:

AI applications such as ChatGPT, OpenAI, Bard, Grammarly, WordTune and others are advanced language models designed to aid and engage in meaningful conversations, as well as, generate and revise content. AI is intended to supplement learning, stimulate critical thinking, and enhance academic discourse. However, its use comes with certain responsibilities.

· Academic Integrity:

Using AI to generate academic work, including essays, reports, or assignments, without proper attribution is a violation of SPC academic integrity policies. Plagiarism undermines the learning process and is strictly prohibited. Students must ensure that their work reflects their own ideas, research, synthesis, and analysis and appropriately cites all sources, including AI.

· Collaboration and Consultation:

While AI can be a valuable resource, it is essential to strike a balance between seeking assistance and maintaining personal responsibility. Collaboration with peers, consulting instructors, and utilizing other approved learning resources should be prioritized. Over-reliance on AI for solutions without actively engaging in the learning process is discouraged and can be grounds for academic integrity violations. Utilizing AI as a tool for brainstorming or research is allowed but the writing should be the student's own work and thoughts.

· Critical Thinking and Originality:

AI usage can provide suggestions and information, but it is essential to critically evaluate the responses and exercise independent thought. Relying solely on AI for answers deprives students of the opportunity to develop their analytical and problem-solving skills. In assignments where originality, creativity, and independent thinking are valued, AI would be detrimental to the student learning process. Critical thinking and originality emphasize the importance of independent thinking in all academic endeavors as part of the student's learning experience apart from outside influence and offers the student the opportunity to refine their unique, individual voice through academic discourse with other students and faculty.

· Ethical Use and Bias Awareness:

AI is trained on large amounts of data from the internet, which may include biased or inaccurate information. Be mindful of the potential for bias and critically evaluate the responses provided by AI. Therefore, when using AI, just like with using any other database, students must verify that the information is from reliable sources, question any potential biases, and ensure that the information and sources used in the paper are neutral, peer-reviewed sources.

· Responsible Engagement:

Students should engage with AI in a respectful and responsible manner and avoid using offensive language, discriminatory remarks, or engaging in any form of harassment or inappropriate behavior. Students should also uphold the standards of respectful communication in addressing both AI and fellow classmates.

· Compliance with South Plains College Policies:

Policies regarding the appropriate use of AI in South Plains College courses are set by instructional departments and individual instructors. Appropriate use of AI may range from strict prohibition to assignments they may require the use of AI. Misusing or violating the guidelines outlined in this syllabus warning may result in disciplinary action, including academic penalties. Students are expected to familiarize themselves with the specific course policies regarding the use of AI and adhere to them throughout the semester.

Remember, AI can be a tool to support your learning in certain courses and assignments, but it cannot replace the critical thinking, creativity, and independent work that are integral to your overall academic growth.

Rev. 6/11/2024

Rev. 3/18/2024 - COVID (Isolation from 5 to 3-days)

Rev. 9/2023

FALL 2025-26 SEMESTER SCHEDULE BY WEEK

with Testing as Needed throughout the Semester

Week 01: 08/18	Diagnostic Test/ Leveling
Week 02: 08/15	Diagnostic Test/ Leveling
Week 03: 08/22	Descriptive Statistics: One- and Two-Variable Data
Week 04: 08/29	Descriptive Statistics: One- and Two-Variable Data
Week 05: 09/01	Collecting Data: Sampling, Experimental Design, & Inference
Week 06: 09/08	Collecting Data: Sampling, Experimental Design, & Inference
Week 07: 09/15	Probability, Random Variables, & Sampling Distributions
Week 08: 09/22	Probability, Random Variables, & Sampling Distributions
Week 09: 09/29	Probability, Random Variables, & Sampling Distributions
Week 10: 10/06	Confidence Intervals & Hypothesis Testing
Week 11: 10/13	Confidence Intervals & Hypothesis Testing
Week 12: 10/20	Confidence Intervals & Hypothesis Testing
Week 13: 10/27	Confidence Intervals & Hypothesis Testing
Week 14: 11/03	Confidence Intervals & Hypothesis Testing
Week 15: 11/10	Confidence Intervals & Hypothesis Testing
Week 16: 11/17	The Chi Squared Distribution & Regression Models
Thanksgiving Break	
Week 17: 12/01	The Chi Squared Distribution & Regression Models
Week 18: 12/08	The Chi Squared Distribution & Regression Models
Week 19: 12/15	Review & Final Exam