South Plains College
Common Course Syllabus: MATH 1342
Revised July 2023

Department: Mathematics, Engineering, and Computer Science

Discipline: Mathematics

Course Number: MATH 1342

Course Title: Statistical Methods

Available Formats: conventional, hybrid and internet

Campuses: Levelland, Lubbock Downtown Center, Plainview 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 TSIA1, minimum score of 950 on the TSIA2, a diagnostic score of 6 on the TSIA2, TSI-exempt status, a successful completion with a grade of 'C' or better in MATH 0337, or successful completion of NCBM-0112.

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

Textbook: No textbook is required.

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/Student Engagement Policy: Attendance and engagement are the most critical activities for success in this course. The instructor maintains records of the student's attendance and submission of assignments throughout the semester. The student is expected to attend at least eighty percent (80%) of the **total** class meetings **and** submit at least eighty percent (80%) of the **total** class assignments to have the best chance of success. If the student fails to meet these minimum requirements, the instructor may remove the student from the class with an X, upon their discretion, to help the student from harming their GPA. If the student cannot receive an X, the instructor will assign an F.

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.
10. Providing a test or test answers to another student.
11. Failing to secure your work and allowing another student to access your test or test answers, whether knowingly or not.

Penalties for academic integrity violations will range from a 50% to a 100% grade reduction, depending on the severity of the infraction.

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Student Code of Conduct Policy: Any successful learning experience requires mutual respect from the student and the instructor. Neither instructor nor student should be subject to others' rude, disruptive, intimidating, aggressive, or demeaning behavior. 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.

For information regarding official South Plains College statements about intellectual exchange, disabilities, non-discrimination, Title IX Pregnancy Accommodations, CARE Team, and Campus Concealed Carry, please visit https://www.southplainscollege.edu/syllabusstatements/.

South Plains College policies, return to campus plan, and protocols regarding COVID-19 can be found here: https://www.southplainscollege.edu/emergency/covid19-faq.php.

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.

Course Information Sheet - MATH 1342.605 – Fall 2025

Instructor: Denise Johansen   **Office:** LBK Downtown B020; (806)716-4632

Cell/Text: (513)227-0095   **Email:** djohansen@southplainscollege.edu

Time/Place: Tuesdays AND Thursdays, 5:30pm-6:411:59pm/Lubbock Downtown Center B003

Lubbock Downtown Center Office Hours (in B020): MW 3pm-4pm, T/Th 3pm-5:30pm, most Fridays 9am-10am, or by appointment.

Supplies:
- Calculator (Required): I HIGHLY recommend a graphing calculator with statistics package; TI-83/84 are preferred, but other models will work. For other models, you will have to read your manual or look online to learn how the various statistics commands work. NOTE: You may NOT use Excel, a calculator program on your phone, and NOT a TI-89 nor TI-Nspire.
- Required: Notebook paper on which to complete your assignments
- Required: Printed Notes. A blank copy of the notes will be posted on Blackboard. You should print them off and fill them out as we go through the notes in class. Please note that the SPC campus computer labs are available if you want to print your notes off there. You could also print them off at most public libraries, but please note that it usually requires you to pay a small fee per page. I recommend keeping all of your notes in order in a notebook so they are easily accessible.
- Recommended: Large 3-ring binder with dividers to organize all notes and homework.

Technology Required:
Working, reliable internet access.
Access to your SPC email.
Access to our Blackboard class. Login at http://southplainscollege.blackboard.com
MyOpenMath website - login through Blackboard
Gradescope.com website – login through Blackboard
Computer, laptop, tablet, or phone for accessing and completing assignments.

Course Delivery: This course is a **face-to-face, lecture-based** course with online homework and discussions and in-person meetings and exams. I will be covering course material

during class, but you are responsible for completing your assignments outside of class. Also, you will understand more during class if you will read the notes and preview the homework **before** you come to class. You can find links for these in Blackboard. You should print your notes and bring them with you to class to complete. If you miss class for any reason, the whiteboard notes may be found in Blackboard in the Course Resources folder. Also during class, you will have the opportunity to ask questions, we will have class discussions, and there will be short in-class labs to practice the topics. There may also be short quizzes at the beginning of class. I use email, MyOpenMath, Blackboard, and Gradescope.com to deliver and manage this course. I do NOT use the Course Messages feature in Blackboard. I hold face-to-face office hours at the Lubbock Downtown Center campus and virtual office hours using Zoom (Live Q&A's on Thursdays at 8pm or schedule time with me at https://go.oncehub.com/djohansen). I can also be reached by phone or text using my cellphone number (513-227-0095). If you have to leave a message, my response time is 1 business day or less.

Course Requirements: To maximize the potential to successfully complete this course, a student should spend 10-15 hours per week for the 15 weeks of our semester doing the following:
- Attend all class meetings and be prepared to ask your questions and take notes.
- Login to Blackboard at least three days a week, use the links in Blackboard to access and print the class notes, and login to MyOpenMath to thoroughly complete all homework assignments, and prepare well for examinations.
- Participate in a Blackboard discussion board to be completed most weeks.
- The three written exams will be taken in class, and the Final Exam will be taken according to the SPC Final Exam Schedule.
- Additionally, students are expected to check their SPC school email **daily** and respond to email communications promptly. **If you don't normally check your SPC email, make sure to set up your SPC account to forward mail to an account you do check.**

Contacting Your Instructor: I am available by phone or face-to-face visit in my office on the Lubbock Downtown Center campus during my posted office hours; you can email me or text my cell at any time. I can also be reached by phone using my office number (806-716-4632) or cellphone number (513-227-0095) during reasonable hours. If you have to leave a message, my response time is 1 business day or less. NOTE: I do not use the Course Messages feature in Blackboard.

Learning Materials/Activities: To be successful in this course, you will use the following materials and complete the given activities for each section of the material that we will cover.
- Class Notes:
  - Print the class notes out from Blackboard and preview them before class. As you read, you should make note of any new vocabulary words (usually in boldface type), formulas, theorems, and calculator commands. The reading is probably your first introduction to the concepts.
  - Bring your printed notes to class, and complete them during the lecture and discussion.

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- Homework: questions may be multiple choice or fill-in-the-blank, but are primarily open-ended questions for problems that you work out. The questions generally give you 3 chances to get the question right before marking the problem wrong. You will then have access to a Similar Question button that will give you a new question and 3 more chances to get the question right. You have unlimited attempts on homework questions, so if you are persistent, do your work on time, and learn from your mistakes, you can earn 100% on all homework assignments. The purpose of homework is to practice, practice, practice! This is where you actually are learning the concepts, not just watching someone else work problems. ==If you have struggles with the homework, please email your question to me or bring it to my office hours so I can help you.==

- In-Class assignment – On most days that we meet for class, we will take some time to practice what you've learned and/or to apply the concepts to lab exercises.

- Discussion boards – These are 9 Blackboard assignments for you to get to know other students in the class, learn new tools to be a better student, discuss strategies for solving problems, and generally get help from me and each other. For each discussion, you have to make your post before you can read the other students' posts. Your initial post is due by 11:59pm on Wednesdays, and your responses to classmates are due by 11:59pm on Sundays.

Course Evaluation:
- There will be in-class assignments collected most days. Because these activities are done in-class, there are generally no makeups if you are absent. The only makeups allowed will be for absences that are qualified by DeEtte Edens with SPC's Health Services. The lowest 2 in-class grades will be dropped, and the remaining average will be worth 10% of your grade

- When your Class Notes are completed, you will submit a scan of them to that assignment in Blackboard. I will be grading them for completion and accuracy. The lowest 2 Notes grades will be dropped, and the remaining average will be worth 5% of your grade.

- Daily online homework assignments will be due weekly, usually at 11:59pm on Sundays. The homework average is worth 15% of your grade, and the lowest 3 homework grades will be dropped.

- There will be 9 Discussion boards posted on Blackboard during the term, worth up to a total of 9 **bonus points** on your exams.

- There will be 3 paper/pencil/calculator/notecard exams during the term, each worth 15% of your grade. For each of these exams, you are allowed ONE 3"x5" handwritten, front and back, notecard. If applicable, I will provide you a z-chart, t-chart, or correlation coefficient chart. If one exam is missed for a legitimate reason, the Final Exam grade will be substituted for the missed exam. All exams will be taken in person during our normal class time and will be timed at 75 minutes. There are NO makeup exams or retakes given for any reason. A second missed exam will receive a 0. It is still your responsibility to contact me **in advance** to let me know if you are going to miss an exam, and we can potentially discuss alternative proctored testing for you.

- There will be 1 in-class cumulative final exam on **Tuesday, December 9th from 11:59pm-7pm**, worth 25% of your grade. You are allowed TWO 3"x5" handwritten, front and back, notecards on this exam, and I will provide any needed charts.

- **Due dates:** Your initial posts on the bonus discussions are due on Wednesdays by 11:59pm, and your follow-up posts are due on Sundays by 11:59pm. MyOpenMath assignments for the following week will be released at 11:59pm on Fridays and usually due by 11:59pm on Sundays after the material is covered in class. Dates for the exams are listed in the Course Outline/Calendar section of the Syllabus.
- **Late work:** Late work on Homework will be accepted in MyOpenMath with a 20% late deduction. This means that if an assignment has 10 questions, and you get 9 of them correct and on time, you earned a 90% on the assignment. If you get the same 9 of them correct, but even one day late, you have earned 80% of 90%, which is only 72%. PLEASE do your assignments on time; don't shoot yourself in the foot! Blackboard discussions will also be accepted with a 20% late deduction.
  - **No extensions will be given for any coursework**. The exception to this policy is if you are severely ill and/or hospitalized. If this is the case, you must contact DeEtte Edens at dedens@southplainscollege.edu or at (806) 716-2376 and submit the required medical documentation to her. She will notify the instructor, if the illness warrants an extension.
  - **No assignments will be accepted after a hard deadline of 11:59pm on Tuesday, 12/9.**

Grading Policy:

		Letter Grades:		
Homework average	15%	90% - 100%	A
In-Class average	10%	80% - 89%	B
Class Notes	5%	70% - 79%	C
Exams (3@15%)	45%	60% - 69%	D
Final Exam	25%	59% & below	F

How your work is graded:
- MyOpenMath grades online assignments as a percentage based on how many parts of a question were answered correctly, and these grades are immediately included in your MOM Gradebook.
- For the Discussion Boards, your original post is generally worth 3 points, and your meaningful responses to 2 classmates are worth 2 points. Any exception to this will be explained in the instructions for that discussion.
- For the Exams that I grade, I give a percentage of points based on how many parts of the question were answered correctly.
  - You will take your paper and pencil exams in class with me, and I will scan the exams and upload the scans to Gradescope. I will grade exams and "publish" grades in Gradescope, Gradescope will update your Bb Gradebook and current class average to include those scores.

Response times for grading:
- Homework - Graded immediately by MyOpenMath, reviewed by me within 1 business day if you contact me with a specific question/issue.
- In-Class - Graded by me and returned to you, usually by the next class meeting.
- Class Notes – Graded by me within one week of due date.
- Discussion – Graded by me within one week of due date.

- Exam - Graded by me and returned to you within one week, with feedback available on Gradescope. Exception: the Final Exam is not returned to you or published on Gradescope, but you can make an appointment with me to see your graded Final Exam.

Reviewing Grades on Blackboard: After you complete MOM assignments or I grade your other assignments and exams, you should be able to log into Blackboard to see your grade in the Gradebook tab.

Reviewing Grades on Gradescope: After I grade your exams, you should be able to log into Blackboard, click on the Gradescope link in the Start Here folder or any of the weekly folders for Exam weeks to get to your graded exams and see your grade and my comments or corrections. You can also login to Gradescope.com or the Gradescope Mobile app using your School Single Sign On method.

Brainfuse Online Tutoring:
You also have 180 FREE minutes of tutoring with Brainfuse each week, and your hours reset every Monday morning. Log into Blackboard, and click on the tools option from the left-hand menu bar. Click on the Brainfuse link and you will automatically be logged in for free tutoring. You may access Brainfuse tutors during the following times:
Monday – Thursday: 8 pm-8 am
6pm Friday – 8am Monday morning

For questions regarding tutoring, please email tutoring@southplainscollege.edu or call 806-716-224

Last day to drop is Thursday, December 4ᵗʰ.

SPC School Holidays:
     Monday, 9/1, Labor Day Holiday
     Friday, 10/17, Fall Break
     Wednesday-Friday, 11/26-11/28, Thanksgiving Holidays

Daily Health Screening: Though this is an online class, you may need to come to campus to see me, see a tutor, or take one of your exams. It is critical that you honestly self-screen and STAY HOME if you are experiencing any of the following: fever, cough, chills, muscle pain, shortness of breath or difficulty breathing, new loss of taste or smell, or a sore throat. Contact DeEtte Edens at dedens@southplainscollege.edu or at (806) 716-2376 and submit the required medical documentation to her if you are having any health issues that interfere with taking your exams or completing other assignments on time.

Cellphones: To limit disruptions to the class and distractions to yourself, please put your cellphone on silent mode or airplane mode. If you feel a call is an emergency that you must answer, please take the phone out in the hall before answering to minimize the disruption to the class. If you feel you must leave class, please do so as quietly as possible.

Student Dress: Reasonable standards of decency apply to the college community. The student should dress in a manner which does not distract from the academic atmosphere. Revealing attire or clothing carrying obscene or offensive slogans is not permitted. In all

academic buildings, classrooms, offices, the Student Center, and dining facilities, students are required to wear shirts and shoes.

Language: Please be respectful of others and use language that is appropriate to the workplace. Remember that you are addressing a group. Even though you don't see them, they will be reading. This means several things:

- Don't say/write things that you wouldn't say/write publicly (face-to-face).
- Don't address comments to individuals unless you want all to know what you are telling that person.
- Don't share confidential information. If you are quoting from something another person has sent you personally, ask their permission first.
- Read your message before you send it since once it is out there, you can't change it.
- This is a NO JUDGEMENT ZONE! None of us have the same background and life experiences, so we understand or see things differently from each other. This means what seems obvious to you may not be obvious to others, and vice-versa. All on-topic questions are welcomed and treated with respect.

COURSE OUTLINE*

Problems are assigned online in MyOpenMath for each section of material that we cover. To access online assignments, you must initially clicking the Course Content button in Blackboard, then click the MyOpenMath link, then create a free account. After the initial registration process, you can access your MOM assignments through Blackboard or by directly logging in to MyOpenMath.com. Assignments have due dates, and you will lose 20% for work completed after the due date passes. To master the material and prepare for the exams, you **MUST** work problems!

* Assignments and deadlines are subject to change at instructor's discretion, and all changes will be emailed to the class and posted in Blackboard Announcements.

Date	Content	Assignments
Week 1 8/26	**Syllabus & Introduction to Statistics (Part 1)** • Syllabus • 1.1 – An Overview of Statistics and Data Classification	**Day 1 Checklist** **Blackboard Discussion 1 – Introduce Yourself**
8/28	• 1.2 – Data Collection and Experimental Design	Notes 1.1, 1.2 MOM Hwk 1.1, 1.2 **Due 11:59pm, 8/31**
Week 2 9/2 9/4	**Introduction to Statistics (Part 2) & Descriptive Statistics (Part 1)** • **9/1 – Labor Day Holiday – No Classes and no office hours!** • 1.3 – Frequency Distributions and Their Graphs • 1.4 – Measures of Central Tendency	**Bb Discussion 2 – Success Plan** Notes 1.3, 1.4 MOM Hwk 1.3, 1.4 **Due 11:59pm, 9/7**

Date	Content	Assignments
Week 3 9/9 9/11	**Descriptive Statistics (Part 2)** • 1.5 – Measures of Variation • 1.6 - Measures of Position Additional paper and pencil review with answer key posted on Bb on Course Resources page and in Review Materials folder.	**Bb Discussion 3 – Study Strategies** Notes 1.5, 1.6 MOM Hwk 1.5, 1.6 **Due 11:59pm, 9/14**
Week 4 9/16 9/18	**Review & Exam 1** • Review • **Exam 1 (Notes 1.1-1.6)**	**Bb Discussion 4 – Growth Mindset** **Due 11:59pm, 9/21**
Week 5 9/23 9/25	**Probability (Part 1)** • 1.7 – Basic Concepts of Probability and Counting • 1.8 – Conditional Probability and the Multiplication Rule	**Bb Discussion 5 – Stress Management** Notes 1.7, 1.8 MOM Hwk 1.7, 1.8 **Due 11:59pm, 9/28**
Week 6 9/30 10/2	**Probability (Part 2)** • 1.9 – The Addition Rule • 1.10 – Additional Topics in Probability and Counting	**Bb Discussion 6 – Review Success Plan** Notes 1.9, 1.10 MOM Hwk 1.9, 1.10 **Due 11:59pm, 10/5**
Week 7 10/7 10/9	**Probability Distributions** • 2.1 – Probability Distributions • 2.2 – Binomial Distributions	**Bb Discussion 7 – Sleep** Notes 2.1, 2.2 MOM Hwk 2.1, 2.2 **Due 11:59pm, 10/12**
Week 8 10/14 10/16	**Normal Probability Distributions (Part 1)** • 2.3 – Introduction to Normal Distributions and Standard Normal Distributions • 2.4 – Normal Distributions: Finding Values • **10/17– Fall Break – No Classes and no office hours!**	**Bb Discussion 8 – Nutrition** Notes 2.3, 2.4 MOM Hwk 2.3, 2.4 **Due 11:59pm, 10/19**
Week 9 10/21 10/23	**Normal Probability Distributions (Part 2) & Review for Exam 2** • 2.5 – Sampling Distributions and The Central Limit Theorem • Review for Exam 2 Additional paper and pencil review with answer key posted on Bb on Course Resources page and in Review Materials folder.	**Bb Discussion 9 – Gratitude** Notes 2.5 MOM Hwk 2.5 **Due 11:59pm, 10/26**

Date	Content	Assignments
Week 10 10/28 10/30	**Exam 2 & Confidence Intervals (Part 1)** • **Exam 2 (Notes 1.7-2.5)** • 2.6 – Confidence Intervals for the Mean (Sigma Known)	Notes 2.6 MOM Hwk 2.6 **Due 11:59pm, 11/2**
Week 11 11/4 11/6	**Confidence Intervals (Part 2)** • 2.7 – Confidence Intervals for the Mean (Sigma Unknown) • 2.8 – Confidence Intervals for Population Proportions	Notes 2.7, 2.8 MOM Hwk 2.7, 2.8 **Due 11:59pm, 11/9**
Week 12 11/11 11/13	**Hypothesis Testing (Part 1)** • 3.1 – Introduction to Hypothesis Testing • 3.2 – Hypothesis Testing for the Mean (Sigma Known)	Notes 3.1, 3.2 MOM Hwk 3.1, 3.2 **Due 11:59pm, 11/16**
Week 13 11/18 11/20	**Hypothesis Testing (Part 2) & Review for Exam 3** • 3.3 – Hypothesis Testing for the Mean (Sigma Unknown) • 3.4 – Hypothesis Testing for Proportions • Review for Exam 3 Additional paper and pencil review with answer key posted on Bb on Course Resources page and in Review Materials folder.	Notes 3.3, 3.4 MOM Hwk 3.3, 3.4 **Due 11:59pm, 11/23**
Week 14 11/25	**Exam 3 & Thanksgiving** • **Exam 3 (Notes 2.6-3.4)** • **11/26-11/28 – Thanksgiving Holidays – No office hours and no classes!**	
Week 15 12/2 12/4	**Correlation and Regression & Review for Final Exam** • 3.7 – Correlations • 3.8 – Linear Regression • Review for Final Exam Additional paper and pencil review with answer key posted on Bb.	Notes 3.7, 3.8 MOM Hwk 3.7, 3.8 **Due 11:59pm, 12/7**
Week 16 12/9	**Cumulative/Comprehensive Final Exam** **Final Exam Tuesday, 12/9, 5pm-7pm** • **Any late work due by 5pm, Tuesday, 12/9**	**Have a safe and happy break!**