

**South Plains College  
Common Course Syllabus: MATH 1324  
Revised August 2021**

**Department:** Mathematics, Engineering, and Computer Science

**Discipline:** Mathematics

**Course Number:** MATH 1324

**Course Title:** Mathematics for Business and Social Sciences

**Available Formats:** conventional, hybrid and internet

**Campuses:** Levelland, Reese, and Dual Credit

**Course Description:** The application of common algebraic functions, including polynomial, exponential, logarithmic, and rational, to problems in business, economics, and the social sciences are addressed. The applications include mathematics of finance, including simple and compound interest and annuities; systems of linear equations; matrices; linear programming; and probability, including expected value.

**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 0320, or successful completion of NCBM-0114.

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

**Textbook:** *Mathematics with Applications in the Management, Natural, and Social Sciences*, Lial, Hungerford, Holcomb, and Mullins, 2019, 12<sup>th</sup> Edition, Prentice Hall/Pearson Education

**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. Apply elementary functions, including linear, quadratic, polynomial, rational, logarithmic, and exponential functions to solving real-world problems.
2. Solve mathematics of finance problems, including the computation of interest, annuities, and amortization of loans.

3. Apply basic matrix operations, including linear programming methods, to solve application problems.
4. Demonstrate fundamental probability techniques and application of those techniques, including expected value, to solve problems.
5. Apply matrix skills and probability analyses to model applications to solve real-world problems.

**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 can not 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.

**COVID Syllabus Statement:** It is the policy of South Plains College that as a condition of on-campus enrollment, all students are required to engage in safe behaviors to avoid the spread of COVID-19 in the SPC community. There will be no requirement for face coverings at any location on any South Plains College campus or classroom. Faculty, staff, or students may continue to wear a mask voluntarily, but there will be no requirements for face coverings in any circumstance. 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](mailto:dedens@southplainscollege.edu) or 806-716-2376.

**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 rcanon@southplainscollege.edu](mailto:rcanon@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.



**Assessment:** Grading will be done according to the standard 10 percent scale (i.e. 100% - 90% is an A, etc.) with assignments weighted as follows:

Assignments/Lessons	16%
Tests	16% each
Final Exam	20%

Grades are calculated by taking the average of all of the grades in that assessment type, and then weighing them according to the proportions given above. Details of each assessment type are given below.

**Class Attendance:** As stated above, this is a hybrid course with both online and in-person components. Attendance to the in-person meetings is required. Students should be involved with working the course material as often as possible in order to develop mastery of the topics presented. If a student misses more than 4 in-class days without communication or arrangements made with the instructor that student may be dropped from the course with an X or an F (depending on the student's current course average).

If you wish to drop the course on your own (which gives a mark of W) see the drop materials in the Course Resources section of Blackboard. The last day to drop the course is Thursday, November 30 (11/30).

Be sure to plan your work time in such a way that you have seen and attempted as much of the material as possible before the class meetings. This way you will have questions to ask, and class time can be allocated to help all students where they are. Further, it has been well documented that spreading out study and regular, consistent practice over a longer period of time helps to retain knowledge, create new connections, and gain additional insights into the material.

**Homework:** Daily work is essential to developing mastery over the topics presented in this course. All homework assignments are available from the first day of classes. Homework problems may be attempted an unlimited number of times in order to achieve mastery over the topic. Each homework assignment has embedded within it videos and reading material to help students understand the concepts, which they can then apply directly to the homework. Unlimited repetition allows for self-assessment and mastery. A primary use of the homework is to start building an intuition regarding each of the topics discussed in this course. This intuition can then be used to gain insights into material in future classes, so it is essential that students achieve as much mastery over the topics as possible. For best results, students should keep a notebook of all correctly worked homework problems to use as a study guide for quizzes, exams, and projects. Homework assignments may be accessed after the due date to help you review or relearn past concepts.

**Quizzes:** Quizzes will be given at every class meeting (except exam days) as a way to gauge class understanding, and will be turned in at the end of class via Gradescope. Quizzes are not dropped and cannot be made up.

**Exams:** Midterm exams are given during this course. These exams will be held exclusively during the classroom sessions of the course. Questions will consist of problems similar to the assigned lessons and quizzes, as well as conceptual questions that will exercise students' skills for communication and abstraction. Students caught cheating will be dropped from the class with an F and disciplinary action will be pursued.

Students must show all work when taking exams. All work should be done neatly and in pencil.

**Projects:** A project will be assigned over the finance unit of the course. This is considered an exam for the purposes of grading.

**Final Exam:** The final exam is comprehensive, and a required part of the course. Failure to take the final exam results in an automatic F. The Final Exam will be held Monday, December 12 at 5:30 pm

**Email:** The email at the header of the syllabus is the best way to get into contact with me. This email is also available on Blackboard in the “Instructor Information” section of the Blackboard course. This should be used as often as necessary to ask questions, schedule appointments for office hours (physical or virtual) or turn in written assignments in the event that Blackboard or Gradescope are down. You may also email incomplete parts of assignments in order to get feedback on how to proceed.

All emails should be formatted with the course number and section, and an adequate heading (i.e. “Math 1324-151 project questions” or “Math 1324-151 Lesson 4.3 problems”). Failure to format the subject line properly may result in emails being caught by SPC’s email filter. Neither the instructor nor SPC is responsible for emails lost due to improper formatting. (NOTE: using Blackboard to email will automatically add the course and section number to the subject heading)

Be sure to confirm that all relevant attachments are sent with the email and that the body of the email contains all relevant information for that correspondence.

Students that have questions while doing homework online may use the helps found in the program, including the option to email the instructor directly. This sends the instructor an email link to the specific version of the problem being worked, and allows a space for the student to describe the issue they have encountered. Emails sent this way have already been marked as “safe” and will not be caught by email filters.

**Showing Work:** In all written assignments submitted (exam work, case studies, projects) work of one kind or another needs to be shown in order for the instructor to properly assess how much of the content has been properly learned and implemented. *When submitting written work any question or component that does not have work associated with it will be given reduced (or no) credit.* The Course Resources area has further instructions and examples of properly showing work.

**Civility in the classroom:** Students are expected to contribute to classroom work and discussions, and to do so in a way that creates an environment conducive to learning. Mathematics can be difficult, for some more than others, and at different times. Students that are intentionally and/or consistently rude, hurtful, or derogatory to other students in the class may be dismissed from the class meeting, with zeros given for any work turned in during class. Continuing such behavior may result in being dropped from the course for creating a hostile learning environment.

**Honesty:** “Scholastic dishonesty” includes but is not limited to cheating, plagiarism, collusion, falsifying academic records, misrepresenting facts, and any act designed to give unfair academic advantage to the student. Incidents of academic dishonesty will be promptly reported and dealt with.

**Student Resources:** To schedule a face-to-face or virtual meeting with SPC tutors, go to the SPC webpage, click Student Services, and click on Tutoring. There students may choose at which center they wish to have tutoring or if they wish to have a virtual session (face-to-face sessions only require an open spot, while virtual sessions require 4 hours notice). Click the Booking link and log in with SPC credentials. Students can then choose the subject and tutor.

Students also have access to the use of Tutor.com for a few hours each week. Students can access Tutor.com directly from the blackboard homepage, or from the Help section of this Blackboard course.

Week	Content Covered	Assignments Due: (lessons should be certified by Tuesday)
Week 1 8/28 - 8/31	Lessons 1.1, 1.2, 1.3	Introductory Assignment (due at end of class)
Week 2 9/4 - 9/7	Lessons 1.4, 1.5, 1.6 9/4: No class - Labor Day	Certify: 1.1 - 1.3
Week 3 9/11 - 9/14	Lessons 2.1, 2.2, 2.3 9/11: Exam 1 (1.1 - 1.6)	Certify: 1.4 - 1.6
Week 4 9/18 - 9/21	Lessons 6.1, 6.2, 6.3 9/18: Quiz 1	Certify: 2.1 - 2.3
Week 5 9/25 - 9/28	Lessons 6.4, 6.5, 6.6 9/25: Exam 2 (2.1 - 2.3, 6.1 - 6.3)	Certify: 6.1 - 6.3
Week 6 10/2 - 10/5	Lessons 7.1, 7.2, 7.3 10/2: Quiz 2	Certify: 6.4 - 6.6
Week 7 10/9 - 10/12	Lessons 7.4, 7.5 10/9: Quiz 3	Certify: 7.1 - 7.3
Week 8 10/16 - 10/19	Lessons 3.1, 3.2, 3.3, 3.4 10/16: Exam 3 (6.4 - 7.5)	Certify: 7.4, 7.5
Week 9 10/23 - 10/26	Lessons 3.5, 3.6, 3.7 10/23: Quiz 4	Certify: 3.1 - 3.4
Week 10 10/30 - 11/2	Lessons 3.8, 3.9 10/30: Quiz 5	Certify: 3.5 - 3.7
Week 11 11/6 - 11/9	Lessons 4.1, 4.2, 4.3, 4.4 11/6: Quiz 6	Certify: 3.8, 3.9
Week 12 11/13 - 11/16	Lessons 5.1, 5.2, 5.3, 5.4 11/13: Exam 4 (3.1 - 4.4)	Certify: 4.1 - 4.4
Week 13 11/20 - 11/23	Lessons 8.1, 8.2, 8.3, 8.4 11/20: Quiz 7 11/22 - 11/24: Thanksgiving	Certify: 5.1 - 5.4
Week 14 11/27 - 11/30	Lessons 8.5, 8.6, 8.7 11/27: Quiz 8	Certify: 8.1 - 8.4
Week 15 12/4 - 12/7	Review Q&A for Final Exam	Certify: 8.5 - 8.7
Week 16 12/11 - 12/14	Final Exam Monday, 12/11: 7:15 pm	

Problem: Due dates

class needs to be split between qu  
due dates need to allow students t  
no questions/material on exam da

Case Study: Life Expectancy, Case Study: Interpolation and Extrapolation

Case Study: Flow Problems

Case Study: Airline Routes, Case Study: Food Chains

Case Study: Diet Problem

Case Study: Maximizing Functions

Finance Project (due ??)

estions and new material

o ask questions in class and use the information to improve scores.

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