

South Plains College
Common Course Syllabus: MATH 0324/1324.C001
Fall 2022

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

Course Number: MATH 0324/1324

0324/1324 Course Title: Mathematics for Business and Social Sciences & Support Course

0324 Available Formats: conventional, hybrid, and internet **1324 Available Formats:** conventional, hybrid, and internet

0324 Campuses: Levelland and Reese

1324 Campuses: Levelland, Reese, and Dual Credit

0324 Course Description: Math0324 is to be taken concurrently with MATH 1324. Background topics which are necessary for a student to successfully complete MATH 1324 will be covered, with an emphasis on fractions, factoring polynomials, functions, exponents, and operating with radical expressions.

1324 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.

0324 Prerequisite: Minimum score of 340 on the TSIA1, minimum diagnostic score of 3 on the TSIA2, a successful completion with a grade of 'C' or better in MATH 0315, or a successful completion of NCBM-0105.

1324 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.

0324 Credit: 3 Lecture: 3 Lab: 1

1324 Credit: 3 Lecture: 3 Lab: 1

Instructor: Jennifer Bartlett

Telephone: (806) 716-2664

Office: Levelland Campus, Math Building, Office 113

Email: The instructor may be emailed through Blackboard or at jkbartlett@southplainscollege.edu.

Email Policy: All students at South Plains College are assigned a standardized SPC e-mail account. Although personal email addresses will continue to be collected, the assigned SPC e-mail account will be used as the official channel of communication for South Plains College. The Student Correspondence Policy can be found at www.southplainscollege.edu. To access the SPC student e-mail account, log in to portal.office.com. (Copied from SPC Student Guide) Since all students have an assigned SPC email, the instructor will only acknowledge, respond, and send emails to your assigned SPC email. This ensures all correspondence from the instructor is received by the intended recipient.

Virtual/Face-to-Face Office Hours:

- Tuesdays, 8:30-11:30am
- Thursdays, 8:30-11:30am
- Fridays, 8:30-10:30am (virtual office hours only)
- And by appointment (scheduled in Blackboard).

**Office hours may be scheduled in Blackboard.*

Textbook: A textbook is not required for this course; however a recommended textbook for this course may be: *Mathematics with Applications in Business and Social Sciences*, 2022, Hawkes Learning

Supplies:

- Calculator: You would be required to bring your calculator to EVERY class if this were a face-to-face class so you will need it for most every time you work on our coursework. You may use a graphing calculator on most homework, quizzes, and exams. TI-83, TI-83+, TI-84+ are preferred, but many others are also acceptable. 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.
- Paper, maybe a small amount of graph paper, pencils, and erasers
- Access to a reliable internet service, a way to print and scan documents, a device with the capability to participate in Zoom/Proctorio meetings with video and audio
- You may want 3-ring binder (about 2.5 or 3 inch) and dividers to keep track of all the course materials

Blackboard: Blackboard is the online course management system that will be utilized for this course. This course is supplemented online, so all access to course information and your instructor is through the Internet. This course syllabus, as well as all course materials can be accessed through Blackboard. Login at <https://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)

Questions regarding Blackboard support may be emailed to blackboard@southplainscollege.edu or by telephone to 806-716-2180.

This course partially satisfies a Core Curriculum Requirement:

0324: None

1324: 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. Your final average in the course will determine the letter grade posted on your transcript. Grades will be updated on Blackboard during the semester. Math 0324 will be graded as Pass/Fail. If a grade of A, B, or C is earned in Math 1324, then a grade of Pass will be awarded in Math 0324. If a grade of D or F is earned in Math 1324, then a grade of Pass or Fail will be awarded for Math 0324 at the instructor's discretion. If you pass MATH 0324 but do not pass the MATH 1324 portion, you will be able to register for MATH 1324 in future semesters. Your grade is determined by the following scale: A (90-100%), B (80-89%), C (70-79%), D (60-69%), F (0-59%).

- Daily Work (Assignments, Quizzes, Labs, etc.) = 10%
- Unit Exams (7 total) = 70%
- Final Exam = 20%

Assignment Format and Policy: Assignments are given after each lesson and are collected according to the tentative course schedule below. Expect a quiz to accompany each assignment. For each question on each assignment:

- Write the question number.
- In solving the problem, show all necessary work.
- Clearly mark your answer.
- Check your answers in Blackboard to make certain you are practicing the exercises correctly.
- Write your name at the top of each page of your work.
- Submit the assignment in Blackboard as a single pdf file, preferably using the Gradescope app. (Pdf files can be generated easily using a scanner or many freely available phone apps, like CamScanner, Scannable, or OneDrive.)

Make certain to complete and submit assignments on time (or early). Early submissions are welcomed! Late assignments will not be accepted.

Quiz Format and Policy: Expect a face-to-face quiz to be administered at most every class session. No late quizzes will be accepted, as quizzes are to be taken during the class time.

Exam Format and Policy: There will be seven-unit exams in this course. Exams must be taken at the days and times listed on the tentative course schedule. All exams must be taken in pencil. Students may not leave the examination room, Proctorio or in-person, for any reason without turning in their exam for grading.

Final Exam: The comprehensive final will be given on Wednesday, December 14th from 10:15am to 12:15pm. No make-up final will be given. The location and room number will be announced later.

Make-up Exams: No make-up, or late, homework assignments will be given. No make-up exams are given without prior notification AND proper documentation. If are absent from an exam, you must give prior notification and proper documentation of your absence. Students who do not take exams at the normal time, early or late, forfeit the right to attempt any extra credit on that quiz or exam.

To maximize your potential for successfully completing this course:

- login to Blackboard daily
- watch the lecture videos and take notes on them
- thoroughly complete and submit the assignments on time (or early)
- practice the exercises repeatedly until you have full mastery of them
- ask questions when you have them

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.

SPC Tutors

Tutoring is FREE for all currently enrolled students. Make an appointment or drop-in for help at any SPC location or online! Visit the link below to learn more about how to book an appointment, view the tutoring schedule, and view tutoring locations.

<http://www.southplainscollege.edu/exploreprograms/artsandsciences/teacheredtutoring.php>

Tutor.com

You also have 180 FREE minutes of tutoring with Tutor.com each week, and your hours reset every Monday morning. Log into Blackboard, click on the tools option from the left-hand menu bar. Click on the Tutor.com link and you will automatically be logged in for free tutoring. You may access tutor.com tutors during the following times:

Monday – Thursday: 8pm-8am

6pm Friday – 8am Monday morning

For questions regarding tutoring, please email tutoring@southplainscollege.edu or call 806-716-2538.

Academic Integrity (Plagiarism and Cheating Policy): “Complete honesty is required of the student in the presentation of any and all phases of course work. This idea applies to quizzes of whatever length as well to final examinations, to daily reports, and to term papers” (*SPC General Catalog*).

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.

It is the aim of the faculty of South Plains College to foster a spirit of complete honesty and a high standard of integrity. The attempt of any student to present as his or her own any work which he or she has not honestly performed is regarded by the faculty and administration as a most serious offense and renders the offender liable to serious consequences, possibly suspension. (*SPC General Catalog*)

Plagiarism and cheating are not tolerated in this course. Under the policies of South Plains College, punishment for cheating may include no credit (failing) on the assignment, quiz, exam, or the course.

COVID Syllabus Statement: If you are experiencing any of the following symptoms, please do not attend class and either seek medical attention or test 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. Proof of a positive test is required. A home test is sufficient but students must 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.

A student is clear to return to class without further assessment from DeEtte Edens, BSN, RN if they have completed the 5-day isolation period, symptoms have improved, and they are without fever for 24 hours without the use of fever-reducing medication.

Students must communicate with DeEtte Edens, BSN, RN prior to their return date if still symptomatic at the end of the 5-day isolation.

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 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 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, Lubbock Centers (located at the Lubbock Downtown Center) 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 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 dburleson@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.

Math 0324/1324.C001 Tentative Calendar Fall 2022 MW: Face-to-Face in Math 123 TR: Online			
Week	Date	Topic	Homework Due (before 12:30pm)
Week 1	Aug 29 – M	Syllabus, 1.1: Integer Rules, Fraction Multiplication & Division	
	Aug 30 – T	1.2: Fraction Addition & Subtraction, Order of Operations	1.1
	Aug 31 – W	1.3: Exponent Properties	1.2
	Sept 1 – R	1.4: Radical Properties	1.3
Week 2	Sept 5 – M	<i>No School: Labor Day Holiday</i>	
	Sept 6 – T	1.5: Polynomials: Add, Subtract, Multiply Radicals: Add, Subtract Factoring: GCF, Trinomials	1.4
	Sept 7 – W	1.6: Factoring with Leading Coefficient not 1, Special Products	1.5
	Sept 8 – R	1.7: Factoring Summary	1.6
Week 3	Sept 12 – M	Unit 1 Exam	1.7
	Sept 13 – T	2.1: Rational Expressions	
	Sept 14 – W	2.2: Solving Linear and Absolute Value Equations	2.1
	Sept 15 – R	2.3: Solving by Factoring, Quadratic Formula	2.2, Exam Reflections
Week 4	Sept 19 – M	2.4: Solving by Square Root Property, Complete the Square	2.3
	Sept 20 – T	2.5: Solve Rational Equations	2.4
	Sept 21 – W	Review for Unit 2 Exam	2.5
	Sept 22 – R	Review for Unit 2 Exam	
Week 5	Sept 26 – M	Unit 2 Exam	
	Sept 27 – T	3.1: The Coordinate Plane, Slope, Intercepts, & Equations of Lines	
	Sept 28 – W	3.2: Parallel and Perpendicular Lines & Graphing Lines	3.1
	Sept 29 – R	3.3: Linear Business Applications	3.2, Exam Reflections
Week 6	Oct 3 – M	3.4: Supply & Demand, Interval Notation, & Linear Inequalities	3.3
	Oct 4 – T	3.5: Functions & Their Equations	3.4
	Oct 5 – W	3.6: Functions & Their Graphs	3.5
	Oct 6 – R	Review for Unit 3 Exam	3.6
Week 7	Oct 10 – M	Unit 3 Exam	
	Oct 11 – T	4.1: Quadratic Functions and Applications	
	Oct 12 – W	4.2: Polynomial Functions	4.1
	Oct 13 – R	4.3: Rational Functions	4.2

Week 8	Oct 17 – M	Unit 4 Lab	4.3
	Oct 18 – T	Review for Unit 4 Exam	
	Oct 19 – W	Unit 4 Exam	
	Oct 20 – R	5.1: Exponential & Log Functions	
Week 9	Oct 24 – M	5.2: Log Properties & Solving Log Equations	5.1
	Oct 25 – T	5.3: Solving Exp Equations & Exp/Log Applications	5.2
	Oct 26 – W	6.1: Simple & Compound Interest	5.3
	Oct 27 – R	6.2: Future Value of an Annuity	6.1
Week 10	Oct 31 – M	6.3: Present Value of an Annuity	6.2
	Nov 1 – T	Review for Unit 5 & 6 Exam	6.3
	Nov 2 – W	Unit 5 & 6 Exam	
	Nov 3 – R	7.1: Systems of Linear Equations	
Week 11	Nov 7 – M	7.2: Gauss-Jordan Elimination (GJE)	7.1
	Nov 8 – T	7.2: Gauss-Jordan Elimination (GJE)	7.2
	Nov 9 – W	7.3: Applications of Systems	7.2
	Nov 10 – R	7.4: Matrix Operations and Inverses	7.3
Week 12	Nov 14 – M	7.5: Applications of Matrices – Leontief Input-Output Models	7.4
	Nov 15 – T	Review for Unit 7 Exam	7.5
	Nov 16 – W	Unit 7 Exam	
	Nov 17 – R	8.1: Linear Programming: Graphical Method	
Week 13	Nov 21 – M	8.2: Linear Programming: Simplex Method	8.1
	Nov 22 – T		
	Nov 23-25	<i>No School: Thanksgiving Break</i>	
Week 14	Nov 28 – M	8.3: Simplex Method Applications	8.2
	Nov 29 – T	8.4: Simplex Method: Nonstandard Problems	8.3
	Nov 30 – W	9.1: Introduction to Probability & Expected Value	8.4
	Dec 1 – R	<i>Last Day to Drop a Course</i> Review for Unit 8 & 9 Exam	9.1
Week 15	Dec 5 – M	Unit 8 & 9 Exam	
	Dec 6 – T	Review for Final	
	Dec 7 – W	Review for Final	
	Dec 8 – R	Review for Final	
Week 16	Dec 14 – W	Final Exam (10:15-12:15)	