

Math 0324/1324-C001 Math for Business and Social Sciences (Coreq)
Mondays and Wednesdays from 12:30 to 2:15, Room 124
Spring 2024

Instructor: Joshua Keneda, Ph.D. (Dr. K)

Email: jkeneda@southplainscollege.edu

Office Location: Levelland Math & Engineering, Room 104

Office Phone: (806)-716-4036

Office Hours: The office hours schedule is on the Blackboard page. Any student is welcome at any of the office hours. For in person hours, go to Room 104 in the Levelland Math Building. For virtual office hours, join my personal Blackboard meeting (linked on the Bb page) during the scheduled hours. Any student can request additional office hours by emailing me.

Course Structure

- Face-to-face lecture model
 - Class meetings will generally focus on a lecture topic, occasionally with lab/review time.
 - Students provide questions in class to discuss and solidify topics over the lesson(s).
 - Homework over the current week's topics will be due the following week.
 - Quizzes may be given online or in class, but all exams will be done in class
 - All students are expected to be physically in class unless given explicit permission to be virtual.

Textbook

(The textbook is **not** required for the course, but the student is welcome to purchase any of the following textbooks. The Hawkes book is much cheaper and gives lifetime access if you buy through their website.)

(Optional main course textbook) Hawkes Learning (2022). Mathematics with Applications in Business and Social Sciences.

<https://www.hawkeslearning.com/Products/Math/MABS/MathematicswithApplicationsinBusinessandSocialSciences.html>

(Another option) Lial, M. L., Hungerford, T. W., Holcomb J. P., and Mullins B. (2014). Mathematics with Applications in the Management, Natural, and Social Sciences, 12th edition. Pearson. **ISBN:** 0134767624.

There are also some free online resources that you can find under the Course Resources tab on the Blackboard page.

Course Requirements/Materials

- Attend all classes with materials to take notes
- Scientific calculators will be allowed during exams, but they can be borrowed from the prof.
- Reliable internet access
- Printer (for notes), but notes can be done electronically (tablet/iPad) as long as they are written by hand
- Smart phone and/or scanner to turn a written document into a PDF file
- Solid work ethic and character

Expected Engagement: To maximize the potential to complete this course, a student should attend all class meetings (either in person or remotely), take notes and participate in class, and complete all homework assignments, quizzes, and examinations including final examinations.

Class Cancellation: In the event of the class being canceled by the school (for snow days, COVID, etc.), the student will *still* be responsible for the lecture material. The class will continue on the calendar presented unless otherwise noted. All information needed, including a lecture video for the canceled day(s), will be on Blackboard and should be accessed by the student.

Disclaimer: The instructor reserves the right to alter the syllabus and/or any class policies as deemed necessary by the instructor or South Plains College and will announce any changes in class. Any changes to the exam policy or dates will be announced at least one week before the new exam date. If a student has any questions about a change in policy, they should contact/ask the instructor for clarification.

To successfully complete the course objectives, the students must already be prepared to factor algebraic expressions, reduce, add, subtract, multiply, divide, and simplify rational expressions, and simplify, add, subtract, multiply and divide exponential and radical expressions. It is the responsibility of the student to make sure that they enter the class with basic algebraic skills. Contact your instructor to request additional review/supportive materials, if necessary.

Withdrawal: If you wish to withdraw from this class for any reason, you must initiate the appropriate steps on your own. You cannot assume that the instructor will drop you from the course, even if you stop attending at any point during the semester. The drop form can be obtained online in MySPC, under the Student Forms and Tools link. The last day to drop the course is on the course/lecture calendar. If you are still enrolled after the last drop day, you will be receiving a letter grade in the course. Please be aware that SPC may not permit an undergraduate student to drop a total of more than six courses (including any course a transfer student has dropped at another institution of higher education).

Email Policy: All students at South Plains College are assigned a standardized SPC e-mail account. Although personal e-mail 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 MySPC and click the SPC Google Mail option under Campus Bookmarks. (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. Please mention your class (e.g. Beginning Algebra, Business Math, etc.) in your email, so that your instructor quickly knows which class you're asking about. Your instructor will generally reply to emails within one business day.

Final Grading Policy: All grades are rounded from the tenths place. Upon the submission of grades at the end of the semester, **ALL GRADES ARE FINAL!**

Grading Scale

90 or above	A
80 to 89	B
70 to 79	C
60 to 69	D
59 or below	F

Assignment Weights

Practice Assessment		32 points
<i>Quizzes</i>	10 @ 2 point	20 points
<i>Homework</i>	12 @ 1 point	12 points
Aptitude Assessment		68 points
<i>Exams</i>	6 @ 8 points	48 points
<i>Final Exam</i>	1 @ 20 points	20 points
Total Points		100 points

Supplemental materials and a close approximation of your current grade are available throughout the semester on South Plains College's Blackboard server.

Exam Corrections: Students can correct one exam (excluding the final exam) of their choice, before the last day of the class (the last class before Finals Week) to recover fifty percent (50%) of their missed points on that exam. To complete the exam correction, the student will correct the questions missed on the exam on a different sheet of paper and return the corrections, together with the original exam. The instructor will give more details as Finals Week approaches. **This is the only "bonus point" opportunity in the class.**

Feedback: Feedback will be available within two weeks of turning in your homework/exams, but usually the instructor will feedback within one week.

Religious Holy Days: In accordance with Section 51.911, Texas Education Code, South Plains College will allow a student who is absent from class for the observance of a religious holy day to take an examination or complete an assignment scheduled for that day within seven (7) calendar days after the absence. Students are required to file a written notification of absence with each instructor within the first fifteen (15) days of the semester in which the absence will occur. Forms for this purpose are available in the Student Services Office along with instructions and procedures. "Religious holy days" means a holy day observed by a religion whose place of worship is exempt from property taxation under Section 11.20, Tax Code. (copied from current South Plains College catalog)

Mandated Reporting: As a faculty member, I am deeply invested in the well-being of each student I teach. I am here to assist you with your work in this course. If you come to me with other non-course-related concerns, I will do my best to help.

It is important for you to know that all faculty members are mandated reporters of any incidents of sexual misconduct. That means that I cannot keep information about sexual misconduct confidential if you share that information with me. Mrs. Crystal Gilster, the Director of Health & Wellness, can advise you confidentially as can any counselor in the Health & Wellness Center. They can also help you access other resources on campus and in the local community. You can reach Mrs. Crystal Gilster at 716-2362 or cgilster@southplainscollege.edu or go by the Health and Wellness Center. You can schedule time with a counselor by calling 716-2529.

Holiday/Travel Statement: If a student has pre-existing plans to travel out of the area during scheduled class times, you must inform the instructor at least two weeks before your planned absences. Failure to do so will result in the forfeiture of any assignments and/or exams that are not completed during your dates of absence. These assignments will not be replaced or allowed for make-up work.

Homework Policy: Achieving success in this class will require giving regular effort outside of class, especially by doing homework. If you plan to be successful in this class, expect to spend a minimum of 4 to 6 hours outside of class every week maintaining or increasing your math skills. Homework is a planned practice for students to master the skills taught in class and necessary for higher-level mathematics courses.

Every student must do homework. Homework will be assigned daily. The assigned homework will be available on the South Plains College's Blackboard server, for optional printing. A student's homework will be given full credit if each problem is fully attempted. Points will be lost for incomplete attempts or missing work. Though the homework problems are not graded for correctness, this practice is required to more fully understand each topic and to successfully navigate the quizzes and the exams. The homework that was assigned during the previous week will be scanned to a .pdf by the student (either using a scanner or a smartphone app) and collected on the Blackboard page. No credit will be given for homeworks that are submitted in an incorrect format (e.g. as a .jpg). Due dates will be posted on the Blackboard page. Homeworks that are turned in up to one week late will receive half credit. Homeworks over one week late will receive no credit. Failure to show work on a problem will result in no credit given for that problem.

Quizzes: Quizzes will be given in class or through Blackboard to assess if the student is practicing and mastering their math skills (doing homework). Questions will be similar to the questions in the assigned homework. No make-up quizzes will be allowed. If we take more than 10 quizzes during the semester, only your top 10 quiz scores will count toward your semester grade. The other quizzes will be dropped.

Exams: Exams are used to assess the amount of the course objectives that the student has mastered. The student's indicated answer will be the answer graded and only one answer will be graded per problem. Tentative exam dates will be noted in the class calendar and announced in class. Exams must be taken in-person unless otherwise noted. Some dishonesty controls (like the use of Proctorio, etc.) may be required at the instructor's discretion. Quarantined students will take the exam online either via Proctorio or in a Zoom meeting with the instructor, and arrangements must be made via email at least two days before the exam to take the exam this way. If these arrangements are made, a working webcam and mic are required to take the exam online. Students have the scheduled class time to take exams and the time scheduled by the college to take the final exam. No student will be allowed to begin an exam after the first person has turned in their exam and left the classroom.

If the student does poorly on their first exam, they are required to schedule an appointment to discuss their performance with the instructor in their office. If a student should have to miss an exam, the instructor will consider replacing the missed exam with the final exam score only if the student notifies the instructor at least two days before the exam is missed. Exams can be rescheduled with the instructor, but the request for rescheduling must be made via email at least two days before the exam takes place. If no such arrangements are made and the exam is missed, then the student will receive no credit for that exam.

As stated above, exam days are subject to change. The instructor will announce any changes.

Final Exam: There will be a **comprehensive** final exam at the end of the semester. Failure to attempt the final exam will result in a failing grade for the course. The final exam will be given at the scheduled time determined by South Plains College, not during the typical class time. Conflicts in test schedules should be worked out with individual instructors at least a week before the final is administered. A student's library records and all financial records must be clear before the student will be allowed to take final examinations in any course.

Academic Honesty: You are expected to uphold the ideas of academic honesty and to follow the instructions given on all assignments and exams. All work that is graded must be your own. This policy applies to all work attempted in this course. If your instructor has reason to believe that this policy is violated the student will receive no credit for the relevant assignment(s) and may be dropped from the course with an **F**, at the instructor's discretion. For more details on what is considered cheating, see the South Plains College catalog.

Syllabus Content: The instructor reserves the right to change/update the syllabus/course policies throughout the semester. Students will be made aware of any changes to the syllabus by email. The rest of this syllabus contains more detailed information about SPC's policies for this course.

South Plains College
Common Course Syllabus: MATH 0324/1324
Revised December 2022

Department: Mathematics, Engineering, and Computer Science

Discipline: Mathematics

Course Number: MATH 0324/1324

Course Title: Mathematics for Business and Social Sciences with Support Course

Available Formats: conventional, hybrid, and internet

Campuses: Levelland and Downtown Center

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.

Math 1324 - 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: Math 0324 - 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.

Math 1324 - 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 (each): 3 Lecture: 3 Lab: 1

Textbook: *(Optional main course textbook) Hawkes Learning (2022). Mathematics with Applications in Business and Social Sciences.*
<https://www.hawkeslearning.com/Products/Math/MABS/MathematicswithApplicationsinBusinessandSocialSciences.html>

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) if you pass Math 1324.

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 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.

Student Code of Conduct Policy: Any successful learning experience requires mutual respect from the student and the instructor. Neither the instructor nor the 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.

South Plains College policies concerning diversity, disabilities, non-discrimination, Title IX Pregnancy Accommodations, and Campus Concealed Carry Statements can be found here: <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>.

4.1.1.1. 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.

4.1.1.2. 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, Lubbock Centers (located at the Lubbock Downtown Center) 806-716-4675, or Plainview Center (Main Office) 806-716-4302 or 806-296-9611.

4.1.1.3 Non-Discrimination Statement

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.

4.1.1.4 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](mailto:dburleson@southplainscollege.edu) for assistance.

4.1.1.5 Campus [Concealed Carry](#) Statement

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 (with notification to students of any changes) at any point during the semester.

Tentative Calendar for Math 0324/1324 Spring 2024

Week	Day	Date	Topic	Homework
1	Monday	Jan 15	MLK Holiday	
	Wednesday	Jan 17	Intro/Syllabus Day	
2	Monday	Jan 22	1.1 – 1.2: Foundations by Hand; Integer Rules, Fraction Multiplication and Division	1.1 & 1.2
	Wednesday	Jan 24	1.3 – 1.4: Fraction Addition & Subtraction, Order of Operations; Exponent Rules & Radicals	1.3 & 1.4
3	Monday	Jan 29	1.5: Like Terms; Multiplying Polynomials	1.5
	Wednesday	Jan 31	1.6 – 1.7: Solving Linear & Absolute Value Equations; Linear Inequalities; Graphs & Equations of Lines	1.6 & 1.7
4	Monday	Feb 5	1.8. – 1.9: Functions; Linear Business Applications	1.8 – 1.9
	Wednesday	Feb 7	2.1 – 2.2: Factoring Polynomials; Solving Quadratic Equations	2.1 – 2.2
5	Monday	Feb 12	2.3: Quadratic Functions and Applications	2.3
	Wednesday	Feb 14	Exam 1 (Chapter 1)	
6	Monday	Feb 19	2.4: Polynomial Functions	2.4
	Wednesday	Feb 21	3.1: Simplifying Rational Expressions	3.1
7	Monday	Feb 26	3.2: Solving Rational Equations	3.2
	Wednesday	Feb 28	3.3: Rational Functions	3.3
8	Monday	Mar 4	4.1: Systems of Linear Equations	4.1
	Wednesday	Mar 6	Exam 2 (Chapters 2 and 3)	
		<i>March 11 – March 15</i>	<i>Spring Break</i>	
9	Monday	Mar 18	4.2: Applications of GJE	4.2
	Wednesday	Mar 20	4.3: Input-Output Models	4.3
10	Monday	Mar 25	5.1: Linear Programming Graphical Method	5.1
	Wednesday	Mar 27	Exam 3 (Chapter 4)	
11	Monday	Apr 1	5.2: Linear Programming Simplex Method	5.2
	Wednesday	Apr 3	5.3: Linear Programming Two-Phase Method	5.3
12	Monday	Apr 8	6.1: Exponential Functions & Applications	6.1
	Wednesday	Apr 10	Exam 4 (Chapter 5)	
13	Monday	Apr 15	6.2: Logarithmic Functions & Applications	6.2
	Wednesday	Apr 17	6.3: Simple & Compound Interest	6.3
14	Monday	Apr 22	6.4: Annuities	6.4
	Wednesday	Apr 24	7.1: Probability, Expected Value, and Markov Chains	7.1
15	Monday	Apr 29	Exam 5 (Chapter 6)	
	Wednesday	May 1	Review	
16	Monday	May 6	Math 0324 Final Exam	
	Wednesday	May 8	Math 1324 Final Exam	

Last day to drop – April 25, 2023

The following sections are considered **developmental material**. Mastering these sections will earn students a P in Math 0324 this term.

Sections 1.1 – 1.8

Sections 2.1 – 2.2

Sections 3.1 – 3.2

Section 4.1