

South Plains College
Common Course Syllabus: MATH 0324/1324
Revised August 2020

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

Course Number: MATH 0324/1324

0324 Course Title: Mathematics for Business and Social Sciences Support Course

1324 Course Title: Mathematics for Business and Social Sciences

0324 Available Formats: conventional/flex

1324 Available Formats: conventional/flex 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 TSIA, or a successful completion with a grade of 'C' or better in MATH 0315.

1324 Prerequisite: Minimum score of 350 on the TSIA, TSI-exempt status, or a successful completion with a grade of 'C' or better in MATH 0320.

0324 Credit: 3 **Lecture:** 3 **Lab:** 1

1324 Credit: 3 **Lecture:** 3 **Lab:** 1

Textbook: *Mathematics with Applications in the Management, Natural, and Social Sciences*, Lial, Hungerford, Holcomb, and Mullins, 2019, 12th 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:

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.

Attendance Policy: Attendance and effort are the most important activities for success in this course. The instructor maintains records of the student's engagement throughout the semester. The student will be allowed to miss twenty percent (20%) of class assignments for the semester, *for any reason*. Should this number be exceeded, the instructor has the right to drop the student with a grade of F or an X, depending on the instructor's discretion.

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 for the Fall 2020 semester 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. Such behaviors specifically include the requirement that all students properly wear CDC-compliant face coverings while in SPC buildings including in classrooms, labs, hallways, and restrooms. Failure to comply with this policy may result in dismissal from the current class session. If the student refuses to leave the classroom or lab after being dismissed, the student may be referred to the Dean of Students on the Levelland campus or the Dean/Director of external centers for Student Code of Conduct Violation.

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 cgilster@southplainscollege.edu](mailto:cgilster@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.

Texas Tech University Statements

If Texas Tech University campus operations are required to change because of health concerns related to the COVID-19 pandemic, it is possible that this course will move to a fully online delivery format. Should that be necessary, students will need to have access to a webcam and microphone for remote delivery of the class. Additionally, students will need to have access to a way to print and scan documents, and access to a reliable internet service.

Illness-Based Absence Policy

If at any time during this semester you feel ill, in the interest of your own health and safety as well as the health and safety of your instructors and classmates, you are encouraged not to attend face-to-face class meetings or events. Please review the steps outlined below that you should follow to ensure your absence for illness will be excused. These steps also apply to not participating in synchronous online class meetings if you feel too ill to do so and missing specified assignment due dates in asynchronous online classes because of illness.

1. If you are ill and think the symptoms might be COVID-19-related:
 - a. Call Student Health Services at 806.743.2848 or your health care provider. After hours and on weekends contact TTU COVID-19 Helpline at [TBA].
 - b. Self-report as soon as possible using the Dean of Students COVID-19 webpage. This website has specific directions about how to upload documentation from a medical provider and what will happen if your illness renders you unable to participate in classes for more than one week.
 - c. If your illness is determined to be COVID-19-related, all remaining documentation and communication will be handled through the Office of the Dean of Students, including notification of your instructors of the period of time you may be absent from and may return to classes.
 - d. If your illness is determined not to be COVID-19-related, please follow steps 2.a-d below.
2. If you are ill and can attribute your symptoms to something other than COVID-19:
 - a. If your illness renders you unable to attend face-to-face classes, participate in synchronous online classes, or miss specified assignment due dates in asynchronous online classes, you are encouraged to visit with either Student Health Services at 806.743.2848 or your health care provider. Note that Student Health Services and your own and other health care providers may arrange virtual visits.
 - b. During the health provider visit, request a “return to school” note;
 - c. E-mail the instructor a picture of that note;
 - d. Return to class by the next class period after the date indicated on your note.

Following the steps outlined above helps to keep your instructors informed about your absences and ensures your absence or missing an assignment due date because of illness will be marked excused. You will still be responsible to complete within a week of returning to class any assignments, quizzes, or exams you miss because of illness.

Addressing Accommodation Requests from High-Risk Students Returning to Campus

Texas Tech University is taking considerable measures to provide effective social distancing and sanitation protocols as we prepare to return to campus in the Fall. We need to be mindful that, because of underlying health conditions, some students will be at higher risk for COVID-19. Other students, although healthy themselves, might live with someone who has compromising health conditions. Students in one or both of these two categories might request accommodations or alternatives to fulfill course requirements to avoid potential exposure to the virus.

The Office of the Provost authorizes instructors of record (IoRs), in coordination with their department chairs, academic advisors, and academic associate deans, with the flexibility necessary to make instructional accommodations for students to avoid exposure to COVID-19. Accommodations might include, as examples, alternatives to face-to-face group assignments, remote learning such as online instruction or off-site activities, changing to an online section of the same course or to an independent study with the same learning objectives as the original course, or approval of a substitute course that is offered online and can fulfill the same degree requirements of the original course.

Keep in mind the following criteria when considering making an accommodation for a student: (1) whether the requested accommodation would make a substantive alteration of the course material or objectives; (2) whether the accommodation provides an equally effective alternative to the original objectives or activities of the class; and (3) whether the accommodation can be uniformly applied should more than one student request it. If the IoR can satisfactorily address these three requirements for accommodation, and is comfortable providing it, then it is appropriate to do so. If the IOR feels unable to provide accommodation that satisfies these three criteria or is unsure how the requested accommodation can be provided, the IoR is encouraged to contact their academic associate dean’s office for guidance. Students should also be advised to follow the steps for reporting illness-related absences outlined on the Dean of Students COVID-19 webpage.

If a high-risk student asks for a substantial alteration to the essential elements of the class, then the IoR, advisor, or associate dean should suggest that the student work with SDS to provide a Letter of Accommodation (LOA).

Fall 2020 TTAP Math 0324/1324.C251
Math for Business and Social Sciences (with Support Course)
MWF 1:00 – 1:50 ENGLPHL 164
TR 1:00 – 2:20 EDUC 262

Instructor: Jennifer Bartlett
Office: Levelland Campus, Math Building Room 113
Telephone: (806) 716-2664
Email: jkbartlett@southplainscollege.edu

Office Hours:
 Mon & Wed 8:30-10:00 in Levelland Math 113,
 Tues & Thurs 9:15-10:00 in Levelland Math 113,
 2:20-4:20 at TTU ENGLPHL 264,
 or by appointment.

Virtual Office Hours Zoom Link:
<https://southplainscollege.zoom.us/j/3468755641>

Course Materials:

- Calculator: You are required to bring your calculator to EVERY class. 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.
- 3-ring binder (3 inch), dividers, paper, graph paper, hole punch, 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 meetings with video and audio

Homework: Homework will be assigned at each class meeting and will be submitted through Blackboard as a SINGLE PDF document. No late assignments will be accepted. You should show all work when doing homework. Simply writing the problem and the answer is not “doing homework.” Using a solution manual or an app that shows you the steps, and copying them down is NOT “doing homework.” Remember your effort is key to your success. You have to focus your effort on being able to complete the problems on a quiz/exam without any outside resources. You are responsible for the following homework requirements. Any homework that does not follow the homework requirements will be recorded as a grade of a zero.

Homework Requirements:

- 1) Assignments must be submitted through Blackboard by the beginning of the next class period. Late homework will not be accepted.
- 2) Multiple pages must be scanned, saved, and submitted as a SINGLE PDF document.
- 3) Assignments must be written in pencil on white 8.5 x 11 inch paper. It must be neat and legible. I will be the judge as to what is neat. Just because you can read it doesn't mean that I can interpret it.
- 4) Assignments must be presented in an orderly manner with the problem running in a single or double column down the page. No more than double column work will be graded.
- 5) All final answers must be circled to receive credit. Any algebraic answer not circled or “boxed” in will not be graded. Pictures/graphs do not need to be circled or boxed.

Notebook: You will keep all class materials (notes, handouts, homework, quizzes, exams, etc.) organized in a notebook (3-ring binder). These materials should be neat, brought to every class period, and will be used as a reference and study guide.

Quizzes: Short, in-class quizzes that will be given regularly will have problems selected from, or closely related to, your homework. Most, if not all, quizzes will be pop-quizzes so you will need to be prepared every class period. Students arriving late may be denied the chance to take a quiz, if there is one that day. Quizzes must be taken in pencil.

Exams: Exams must be taken in pencil. Student may not leave the examination room for any reason without turning in their exam for grading. The tentative exam dates are on the course calendar below. If classes are moved to an online format, exams will be recorded.

Final: The comprehensive final will be given on Tuesday, December 8th from 1:30-4:00pm as directed by the official Texas Tech University Schedule. No make-up final will be given. The final will cover all material covered in-class. Location will be announced.

Make-up: Make-up work is given at the discretion of the instructor. NO make-up quizzes or tests are given without prior notification AND proper documentation. If are absent from class, have given prior notification and proper documentation of your absence, you MUST make arrangements to take the quiz or test BEFORE the next class period. Students who do not take quizzes or exams in-class, early or late, forfeit the right to attempt any extra credit on that quiz or exam.

Grading Policy:

Daily Work (HW, quizzes, labs)	16%
Exams (4 total)	16% each (total of 64%)
Comprehensive Final	20%

Grading Scale (1324):

90-100%	A
80-89%	B
70-79%	C
60-69%	D
Below 60%	F

Grades will be updated on Blackboard during the semester usually after exams. If you make a grade of A, B, or C then that is the grade you will be awarded for both courses: 0324, and 1324. However, if you complete the course and make a grade of a D or F, then your grade for the 0324 course will be assessed at your 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.

Student Responsibilities and Expectations:

1. Come to class on time and prepared to learn. (Pencils, homework, notebook, calculator)
2. Read the syllabus.
3. Take notes, participate in class, and complete course assignments early enough to seek help if needed.
4. Food and drink are not allowed in class, with the exception of bottled water.
5. Cell phones and any other electronic devices must be silenced and put away before entering the classroom. Use of these devices during class will result in a zero for that day's quiz, homework, or exam.
6. Be courteous and respectful to your instructor and classmates at all times.

Resources:

- I am your first and BEST resource for this class! Feel free to come by during my office hours or email me.
- Blackboard is the online course management system that will be used for this course. The course syllabus as well as any other class handouts can be accessed through Blackboard. Login at <http://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)
- Free tutoring is available in M116 on the Levelland campus. Hours for the tutors will be posted by the door of M116.
- Form study groups: Networking is an essential tool both in the classroom and in the workforce!
- Websites that contain helpful videos:
patrickjmt.com
khanacademy.com

TTAP Math 1324/0324.C251 Tentative Calendar Fall 2020				
Week	Day	Date	Topic	Homework Due
1	Monday	Aug 24	Syllabus	
	Tuesday	Aug 25		
	Wednesday	Aug 26	1.1: The Coordinate Plane & Equations of Lines	
	Thursday	Aug 27		
	Friday	Aug 28	<i>Last Day to Add a Course SPC</i> 1.2: Linear Business Applications	
2	Monday	Aug 31	1.3: Interval Notation & Linear Inequalities	
	Tuesday	Sept 1		
	Wednesday	Sept 2	1.4: Functions & Their Equations	
	Thursday	Sept 3		
	Friday	Sept 4	1.5: Functions & Their Graphs	
3	Monday	Sept 7	<i>No School: Labor Day Holiday</i>	
	Tuesday	Sept 8		
	Wednesday	Sept 9	1.6: Quadratic Functions and Applications	
	Thursday	Sept 10		
	Friday	Sept 11	1.7: Polynomial Functions	
4	Monday	Sept 14	1.8: Rational Functions	
	Tuesday	Sept 15		
	Wednesday	Sept 16	Unit 1 Worksheet & Review for Exam 1	
	Thursday	Sept 17		
	Friday	Sept 18	Review for Exam 1	
5	Monday	Sept 21	EXAM 1 (16%)	
	Tuesday	Sept 22		
	Wednesday	Sept 23	2.1: Exponential & Log Functions	
	Thursday	Sept 24		
	Friday	Sept 25	2.2: Log Properties & Log Equations	
6	Monday	Sept 28	2.3: Exponential Equations	
	Tuesday	Sept 29		
	Wednesday	Sept 30	2.4: Logarithmic and Exponential Applications	
	Thursday	Oct 1		
	Friday	Oct 2	2.5: Simple & Compound Interest	
7	Monday	Oct 5	2.6: Future Value of an Annuity	
	Tuesday	Oct 6		
	Wednesday	Oct 7	2.7: Present Value of an Annuity	
	Thursday	Oct 8		
	Friday	Oct 9	Unit 2 Lab	
8	Monday	Oct 12	Review for Exam 2	
	Tuesday	Oct 13		

	Wednesday	Oct 14	EXAM 2 (16%)	
	Thursday	Oct 15		
	Friday	Oct 16	<i>No School: SPC Fall Break</i>	
9	Monday	Oct 19	3.1: Systems of Two Linear Equations	
	Tuesday	Oct 20		
	Wednesday	Oct 21	3.2: Gauss-Jordan Elimination (GJE)	
	Thursday	Oct 22		
	Friday	Oct 23	3.2: Gauss-Jordan Elimination (GJE)	
10	Monday	Oct 26	3.3: Applications of Systems	
	Tuesday	Oct 27		
	Wednesday	Oct 28	3.4: Matrix Operations and Inverses	
	Thursday	Oct 29		
	Friday	Oct 30	3.5: Applications of Matrices – Leontief Input-Output Models	
11	Monday	Nov 2	Review for Exam 3	
	Tuesday	Nov 3		
	Wednesday	Nov 4	EXAM 3 (16%)	
	Thursday	Nov 5		
	Friday	Nov 6	4.1: Graphing Linear Inequalities & Graphical Linear Programming	
12	Monday	Nov 9	4.2: Graphical Linear Programming Applications	
	Tuesday	Nov 10		
	Wednesday	Nov 11	4.3: Linear Programming: Simplex Method	
	Thursday	Nov 12		
	Friday	Nov 13	4.4: Simplex Method Applications	
13	Monday	Nov 16	4.5: Simplex Method: Nonstandard Problems	
	Tuesday	Nov 17		
	Wednesday	Nov 18	5.1: Introduction to Probability & Expected Value	
	Thursday	Nov 19	<i>Last Day to Drop a Course SPC</i>	
	Friday	Nov 20	Review for Exam 4	
14	Monday	Nov 23	EXAM 4 (16%)	
	Tuesday	Nov 24	<i>Last Day to Drop a Course TTU</i>	
	Wed-Fri	Nov 25-27	<i>No School: Thanksgiving Break</i>	
15	Monday	Nov 30	5.2: Markov Chains	
	Tuesday	Dec 1		
	Wednesday	Dec 2	Review for Final Exam	
	Thursday	Dec 3	<i>No School: Dead Day TTU</i>	
16	Tuesday	Dec 8	Final Exam (20%) 1:30-4:00pm	