

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

Department: Mathematics, Engineering, and Computer Science

Discipline: Mathematics

Course Number: MATH 1324

Course Title: Mathematics for Business and Social Sciences

Available Formats: conventional/flex 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 TSIA, TSI-exempt status, or a successful completion with a grade of 'C' or better in MATH 0320.

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: 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 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: Should be provided by the Vice-President of Student Services over email.

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.

MATH 1324—Mathematics for Business and Social Sciences
South Plains College, Reese Center campus
Fall Semester 2020

Section: 004, MW, 2:30-4:15 p.m.

Room: Levelland MECS Building, Room 124

Instructor: Mr. Robert E. Plant, II, M.S.

Office Info: Room—Math Building,
Phone—(806) 716-2734
Hours—the following table will display the office hours [(V): virtual].

Monday	Tuesday	Wednesday	Thursday	Friday
8:00 – 9:00 (V)	9:30 – 11:30*	8:00 – 9:00 (V)	9:30 – 11:30*	9:30 – 11:30*

* Virtual Office Hours to be set by appointment via Calendly; first-come, first serve; link:
<https://calendly.com/rplant-1/virtual-office-hours?month=2020-08>

E-mail: rplant@southplainscollege.edu

O.P.I.*: This syllabus is © 2020 by Mr. Robert E. Plant, II
* O.P. I. means “other pertinent information,” or in layman terms, “something else that you need to know.”

Tutoring: Free tutoring is available in room 116 of the Mathematics-Engineering Building, at the Reese Center campus in Rooms RC211 and RC212, and at the Lubbock Center (40th and Avenue Q). (Please remember to verbally request a tutor and to sign in when you seek the help of a tutor in each of these places.)
Videos for this course are also available. Students are encouraged to view these by accessing them online via YouTube.
There are alternate tutoring resources available online for students upon request.

“Practice & Application Sustain Success. #PASS”

—Instructor

Fundamental Principles of Mathematics

Mathematics is built upon two fundamental principles—pattern recognition and problem solving. Students must become able to recognize patterns in order to solve *types* of problems. Too often have I observed students hang a majority of time up on each specific problem, so it is my mission as your instructor to emphasize that there are sets of problems within the homework (HW) assigned that require *one concept or skill to solve all problems in each set!* It is the ultimate objective of this and any other mathematics course to enable you as the student to become proficient in both of these areas. But until you have reached the point of mastery in both, I submit to you a paraphrase of a quote taken from Tupac Shakur: “**All eyes on me!**”

Expectations of the Student for the Instructor

The Student is within all rights to expect that the Instructor do the following:

- Show up, as scheduled and mutually agreed upon, to teach all information pertaining to the course.
- Use the entirety of the lecture period, physical or virtual, as well as the allotted lab time for this course.
- Provide notice of any schedule changes.
- Maximize the time allotted for this course by assessing student aptitude of covered information, when time permits.
- Present the material in a manner that can generally be understood by the class at large.
- Be accessible to those who need assistance outside of the classroom setting, by way of e-mail or in person, during office hours or reasonably scheduled appointment times.
- Respond to all contact attempts in a timely and discretionary manner.
- Hold to any assignment(s) given over the semester unless removed.
- Uphold the policies of the college as it pertains to the student’s welfare in the course.
- Not make any exceptions regarding the dismissal of any student from the course for reasons listed herein.
- Allow each student the opportunity to discuss the material presented during the lecture period.
- Provide examinations based on the information discussed in class that contain problems which use solving methods *similar* to those assigned from sections pertaining to the exam.

Expectations of the Instructor for the Student

The Instructor is within all rights to expect that the Student do the following:

- Show up, as scheduled and mutually agreed upon, to receive and learn all information pertinent to the course and be mindful of any schedule changes.
- Take advantage of *all* resources available to you. These resources, which include the Office Hours and the Tutoring Lab, have been previously stated in the syllabus.
- Be respectful of your peers and the Instructor as stated in the SPC Student Handbook.
 - In the collegiate setting, all students are considered adults and are expected to uphold conduct worthy of such consideration.
 - Failure to do so provides enough grounds for the Student to be dismissed from the course.
- Be willing to work with—**BUT NOT DO WORK FOR**—fellow classmates.
 - Networking is an essential tool both in the workforce and in the classroom; furthermore, the greater the numbers of minds there are involved, the less mental labor is required for everyone.
 - Virtual networking will very much be a necessity. Use Skype, Teams, or other virtual conferencing interfaces to interact with each other (when permitted).
 - No one is an island... *except on the exams!*
- Be mindful of the classroom setting and the roles therein.
 - While student tuition is vital to the well-being of this academic institution, this does NOT warrant the concession of any instructor to you in a manner that compromises the integrity of the classroom setting and that of the institution itself.
- *Write all graded work legibly. All work not understood by me will not be accepted by me and will cause you to receive a grade of zero percent (0%) for the work in question.*
- Turn all electronic devices *off* that have no use in the face-to-face classroom setting.
 - This means all music players, cellular telephones (or cell phones), etc.
 - If a cell phone must be on (family emergencies only), then
 - the Instructor must be notified *before* the beginning of the period and
 - the phone must be put on vibrate mode and placed **screen down** on your desk.
 - *Tablets and digital notebooks during face-to-face lecture are permitted.*
 - If a disallowed device is in use during an exam, then the grade for said exam will be zero percent (0%).
- Bring all materials needed for the course and refrain from bringing anything that is not needed. This allows you to pay attention to the subject matter only and shows me that you are prepared to learn.
- Obtain all missed information and assignments from a fellow classmate.
 - In the spirit of holding to all course objectives in a manner that warrants personal accountability, I will not relay such information unless necessary.
 - This means that *if there is no documented reason for missing the information, then find your peers, not me.*

- READ THE SYLLABUS!!!
 - If you lose the copy that I give you, then you will have to obtain another copy from Blackboard. There are *no exceptions* to this rule!

Required & Disallowed Materials for the Course

The following materials are required of the Student for this course:

- PDF Document Scanner—This will be required for all work that is virtually submitted to the Instructor; apps such as Evernote Scannable and
- Ruler—This will be required for the Graphing portion of this course
- Multi-subject Notebook (with at least 5 sections)—This will be required for the Student to keep his/her notes; any writing utensil may be used to take notes, and *the notebook is to be used in this course only*
- Three-ringed Binder—This will be required to store all Homework (HW) that is assigned in the course; should be stocked with at least 250 sheets of loose-leaf writing paper and at least 100 sheets of graphing paper, which are sold separately
- **Graphing calculators**—These are allowed in this course and cannot exceed the quality of a TI-84 Calculator; no extra calculators are required of the Instructor to provide in the event of the Student not having his/her own
- Syllabus Acknowledgment of Receipt—The filling in, signing, and returning of said form is prerequisite for any accommodations stated in the syllabus to be recognized for the Student; nonetheless, the Student is still expected to uphold any responsibilities that are stated herein

The following materials and situational items are disallowed in this course:

- Cell phones—Usage of cell phones during lecture is prohibited in this course
 - Usage during lecture may result in dismissal from lecture and a counted absence
 - Usage during an exam is grounds for immediate dismissal from the course
- Online math answering programs—Programs that provide “solutions” to unworked problems, such as Chegg, MathWay, PhotoMath, and Wolfram Alpha are strictly prohibited from use in this course
 - First Offense—Dismissal from lecture and counted absent
 - Second Offense—Student will be dropped from the course
- TI-89 and *n*-Spire calculators—As the TI-89 can symbolically differentiate as well as integrate, the use thereof is prohibited; as the *n*-Spire calculator can save webpage information, the use thereof is prohibited; cell phone calculator usage is also disallowed; repeated violation will result in the *dismissal of the Student from the course*
- Pen for doing graded work—Use thereof in said circumstance will result in a zero percent (0%) for the assignment in question
 - All work must be shown in pencil
 - Writing each question in pen is permitted
 - Circling/boxing answers in pen/highlighter is allowed
- Notes on exams—Use thereof in said circumstance that is not permitted by the Instructor will result in the immediate dismissal of the Student from the course.
- Student Solutions Manuals during class time—Use thereof in said circumstance will result in the Student being dismissed from the classroom and being counted as absent for the day in question

If the Student has any concerns pertaining to the information above on this page, then the Student is to contact the instructor by the means stated in this document. The Instructor cannot be reasonably expected to address any such concerns if no communication is had with the Student.

Grading Policy*

90% or above	A	HW Notebook Checks (2 @ 4%):	8% of overall grade
80-89%	B	HW Quizzes (8 @ 3%):	24%
70-79%	C	Mid-term Examinations (4 @ 12%):	48%
60-69%	D	Final examination (cumulative):	20%
59% or below	F		

*All grades are rounded from the first decimal. Borderline grades (within 2% of the minimum) will be handled by the Instructor based on the Student’s compliance with the Syllabus. Upon the submission of grades at the end of the semester, **ALL GRADES ARE FINAL!**

Holiday/Travel Statement

If you the student have pre-existing plans to either travel out of the area during scheduled class times, you must inform me by **NO LATER THAN Monday, September 13, 2020**. Failure to do so will result in the forfeiture of any assignments that will come into question during your dates of absence.

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)

Final Examination Policy

There will be a final examination for this course. ***All students are required to take this exam at the appointed time listed herein.*** Also, due to the insurance of outcomes assessment at the end of any semester, there will be no guarantee of exemption from the final exam for this course. ***If any exam is missed, then the final will replace ONE such exam upon notification before the exam is scheduled.*** All other exams missed will receive a grade of 0% or be handled at the Instructor's discretion. **If the final exam is missed by any student required to take such, the student will receive a 0% for the final and an "F" for the course!**

Sexual Misconduct Confidentiality Statement

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, however, 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.

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 the director by phone at 716-2563 or by going to the Health & Wellness Center. You can schedule an appointment with a Counselor by calling 716-2529.

Key SPC Dates

September 9th – 12th Class Day

November 19th – Last Day to Withdraw from Classes

December 7th-10th – Finals Week



The “Course Fishing” Rule

This rule has been implemented for the Fall Semester of 2007 and is effective hereafter. As per House Bill 116 (Senate Bill 1231) of the Texas legislature, *all* students will be limited to a total of six (6) mid-semester withdrawals for their entire undergraduate academic career. A mid-semester withdrawal is one that occurs after the twelfth (12th) class day and is noted on the student’s transcript as a “W”, and upon the student receiving the sixth W, all future attempts to withdraw from a course mid-semester will be denied. As a result, a terminal course grade (A, B, C, D, or F) will be issued for the course in question. This does not include any withdrawals acquired by the student before the Fall Semester of 2007, so the count for each student under this rule is currently zero (0). **BE SURE OF YOUR INTENTIONS TO FINISH OUT THE COURSE BEFORE CONTINUING!**

Mr. Robert E. Plant, II
Fall 2020 Lecture & Homework Calendar
MATH 1324

Week (Dates)	Monday	Wednesday
1 (8/24 to 8/28)	Introduction; Chapter 1	2.1 – 2.3
2 (8/31 to 9/4)	2.4, 2.5; WA 1	3.1, 3.2
3 (9/7 to 9/11)	Labor Day Holiday	3.3, 3.4
4 (9/14 to 9/18)	3.5, 3.6; WA 2	4.1, 4.2 (Exam 2 Material)
5 (9/21 to 9/25)	Exam 1	4.3, 4.4
6 (9/28 to 10/2)	5.1; WA 3	5.2
7 (10/5 to 10/9)	5.3; WA 4	5.4
8 (10/12 to 10/16)	Exam 2	6.1, 6.2
9 (10/19 to 10/23)	6.3; WA 5	6.4, 6.5
10 (10/26 to 10/30)	6.6; WA 6	7.1, 7.2
11 (11/2 to 11/6)	7.3; WA 7	7.4, 7.5
12 (11/9 to 11/13)	Exam 3	8.3, 8.4
13 (11/16 to 11/20)	9.1	9.5; WA 8
14 (11/23 to 11/27)	Exam 4	Thanksgiving Holiday
15 (11/30 to 12/4)	Probability Review	Final Exam Review
16 (12/7 to 12/10)	FINAL EXAMINATION SCHEDULE Monday, 12/9, 1:00 -3:00 PM ORIGINAL CLASSROOM (CoViD-permitting)	

The homework will be every 3rd problem from each section unless otherwise stated in class. Do NOT ask the Instructor for information given in class if you are absent!

Assignment Glossary

- WA: Weekly Assessment; will be given based on previous Lecture Periods
- **Midterm Exam:** Non-cumulative; based on the units covered before the scheduled date AND since the previous Exam
- Homework Notebook: will be checked on the day of each Midterm Exam; points to be given based on the *rubric* from Page 4
- **FINAL EXAMINATION:** cumulative assessment (unless otherwise informed by the Instructor); will be taken in the same classroom at the time stated in the Calendar

Final Reminders

- No make-up consideration will be given by the Instructor UNLESS
 - Prior notification is given
 - Sufficient documentation is provided *and* verified
 - Acknowledgment of Receipt (see next page) has been submitted to the Instructor by the end of Week 3
- Network with your Classmates as they will be how you receive any missed information.
 - Do NOT ask the Instructor for any information that you have missed due to negligence
- All special considerations such as Extra Credit will ONLY be given to those who are in class on the day thereof *or* have met the criteria for the 1st Reminder.
- If you provide notice of travel arrangements AFTER the deadline, any assignment in question will be graded as a **zero**.

HW Grading Rubric

This is the rubric that will be used for the four (4) homework (HW) notebook checks during the semester and the Instructor will hold to this rubric. Each HW notebook check will be worth **4 points** with students required to *have the notebook ready at all times*. There will be 5 criteria evaluated at each check, with each criterion receiving a standard maximum of 0.8 point:

1. All problems in each section (up to the current section at that time) are attempted, or no more than 1 problem is missing for every 10 problems assigned.
 - a. 0.8 point if satisfied; +0.2 point if all are attempted and worked
 - b. 0.4 point if partially satisfied
 - c. 0 points if not satisfied
2. All work is shown for *each* problem, and the Student is using an **authorized** calculator in this course.
 - a. 0.8 point if satisfied; +0.2 point if *all* answers are correct with work shown
 - b. 0.4 point if at least half of the problems have work shown with answers
 - c. 0.2 point if less than half of the problems have work shown with answers
 - d. 0 points if no work is shown with answers OR an unauthorized calculator is used
3. HW is organized based on the lecture calendar, is kept in a 3-ringed binder as per the Syllabus, and is grouped based on the mid-term exams.
 - a. 0.8 point if completely satisfied; +0.1 point if a copy of the Syllabus is inside; +0.1 point if separated with tabbed sheets
 - b. 0.4 point if kept in a folder/spiral notebook OR if out of order
 - c. 0 points if not satisfied
4. HW is made available upon request (on time) with all work done in pencil.
 - a. 0.8 point if completely satisfied; +0.2 point if Acknowledgment of Receipt is submitted before Week 3
 - b. Prorated deduction for all sections not satisfied
 - c. 50% penalty on entire assignment if one class day late; 100% penalty thereafter*
5. Student correctly applies the information presented in the lecture to HW.
 - a. 0.8 point if completely satisfied;
 - b. 0.4 point if not completely satisfied, but work is attempted for all sections
 - c. 0 points if all sections are not satisfied

* Extenuating circumstances will be handled at the Instructor's discretion as per the Syllabus.

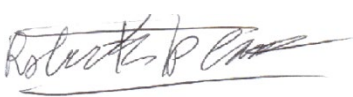
ACKNOWLEDGMENT OF RECEIPT

As a student in this course, I hereby acknowledge that I have received, read, and clearly understood the syllabus. Furthermore, I hold myself accountable for adhering to the expectations stated therein. I also acknowledge that it is my duty and responsibility to notify the instructor of all personal situations that affect my standing in this course before any occur. I am fully aware that any breach of said expectations and responsibilities on my part will result in any necessary consequences that the instructor has stated to me through the syllabus, and that any differences of opinion will be discussed with the instructor in a manner befitting of adults. Finally, in the event of a later dispute by me, I will refer to the syllabus and will, by my signature, forfeit any pursuit that is not backed by the syllabus.

Student's Printed Name

Date of Acknowledgment

Student's Signature



Instructor's Signature

Fall Schedule (Monday-Thursday)	
<u>Class/Work</u>	<u>Hours</u>