MATH 0324 (3:3:1)
&
MATH 1324 (3:3:1)

CoRequisite
MATHEMATICAL ANALYSIS I

MATHEMATICS DEPARTMENT

Division of Arts & Sciences

South Plains College

SPRING 2026

Shirley Davis

Table of Contents

Table of Figures

MATH 0324/1324 – Corequisite Mathematical Analysis I
HYBRID/FLEX

Section C001, MTWR 1 – 2:45pm
Math Bldg., Rm. 105

I. Instructor Info

Professor: Miss S. Davis
Office: 103 MATH Bldg.
Phone: (806) 716 – 2699
E-mail address: sdavis@SouthPlainsCollege.edu (This is NOT Bb email.)

- Any questions or comments should be sent using **Blackboard email** not your SPC email.
- **Response Times**
  I will do my best to respond to your email within the primary office hours availability zone posted on Blackboard. If the emails are overwhelming in volume then please allow me 48 hours = 2 business days of receipt Monday through Thursday throughout the regular business day Monday through Thursday to respond to your email. If I do not respond within 48 hours please email again. Response times are dependent on whether my proposed method of emailing is respectively followed. In other words, if you decline to follow my instructions for emailing me through Blackboard and email me through my SPC email account then response times could take weeks.
- **Messaging/Announcements:** **Blackboard email** and postings will be used as our primary virtual means of communication. **SPC Email will be used as a secondary communication instrument since student emails can be overwhelmed by administrative emails.** Your course will be contained within Blackboard. The instructor will post general announcements in Blackboard usually accompanied with email to your SPC email address.

You must check Blackboard homepage on a regular basis preferably daily.

Office Hours:

Monday	*Tuesday*	*Wednesday*	*Thursday*	*Friday*
8 – 8:30am *10:35 – 11am* *2:15 – 3:45pm*	*2:15 – 3:45pm*	*10:35 – 11am* *2:15 – 3:45pm*	*2:15 – 3:15pm*	*1 hour* *(Designated time posted weekly)*
or by appointment				
At these designated times, I will be available to help you. You **do not** need an appointment for office hours. When you come by, I may be assisting another student, but please wait patiently, and I will attend to you eventually.				

Table 1 – Office Hours

II. Course Info

Course Description for MATH 0324:
Math 0324 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.

Course Description for 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.

This course partially satisfies a Core Curriculum Requirement:
0324: None **1324:** Mathematics Foundational Component Area (020)

Purpose:
To provide a transferable course in Mathematical Analysis I for Business Administration majors and CIS majors; and to lay a foundation for the study of Mathematical Analysis II.

Text:
College Mathematics for Business, Economics, Life Sciences, and Social Sciences, 13th Edition by Barnett, Ziegler, & Byleen, Prentice Hall Publisher, 2011. (ISBN: 0-321-94551-4)

Supplies:
Scientific calculator (or graphing calculator), Graph paper, a ruler, *(at least a **3 in** ring) notebook,* hole puncher, stapler, a staple puller, & a red pen/pencil.
(If your lack of responsibility results in you asking to borrow any of the supplies from me then there will be automatic 5 point deduction from your final grade. **Bring your supplies to class everyday!**)

Return to Table of Contents

III. Attendance Policy

Attendance:

Lectures, effort, engagement, and Q&A are the most important activities for success in this course. The instructor maintains records of the student's attendance and submission of assignments throughout the semester. Maintaining a time management schedule for the online video lectures is crucial to avoid lagging in this class. 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 has the right to drop the student with a grade of F or an X, depending on the instructor's discretion.

IV. Equipment

A. Online Essentials:

1.) Internet access
- Working, reliable internet access with the ability to participating in online conferences via Blackboard or Zoom.
- Libraries, school and public communities, are a great source to computer accessibility.

2.) Computer (required) and Webcam

3.) **Blackboard (Bb)**
- The online course management system that will be used for this course.
- A wealth of information is provided to you for this class in the **Math Analysis I Blackboard** (**MA Bb)**. All the information for this class will exist on Blackboard including but not limited to syllabus & compendium, homework assignments, worksheets supplements, videos, & etc., but additional material involves Classroom Conduct, Technological & Equipment info & assistance, Tutoring opportunities, previous semester student evaluations, and miscellaneous administrative information. Please be responsible to log in to Blackboard and visit **MA Bb** page and peruse through it to become familiar with all the items.

  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. (located on SPC acceptance letter)
- *Technical Support:* Student support is available by emailing blackboard@southplainscollege.edu or calling 716-2962. When emailing a request for help, include your full name, course(s) enrolled in, name of instructor(s) and a phone number where you can be reached.

4.) Calculator
- A scientific calculator for this course is recommended.
- Acceptable: TI-83, TI-83+, TI-84, TI-84+, or TI-84+ Silver Edition but many others are also acceptable.
- Any other graphing calculator, you will need to read you manual to determine how to make the processes work.
- The TI graphing calculator model is not allowed in this class: TI-Nspire.
- Cell phones and similar devices may NOT be used as calculators and no sharing of calculators is allowed.

5.) Other Resources
- You are expected to keep up with the schedule set forth by the due dates of the homework assignments and the exams. If you need help, please ASK! Here are some other good resources online:
  - Your instructor is your first and BEST resource for any help!!!!
  - Free online math videos at www.khanacademy.org, www.patrickjmt.com, www.mathtv.com, & MIT Opencourseware.

6.) Troubleshooting
- Computer Issues
  - If your personal computer becomes "disabled", then you will need to seek an alternate computer source.

Return to Table of Contents

V. Coursework Policies

Assignment Policy:

Homework will be assigned daily (located on **MA Bb**). You are expected to work all problems assigned in each assignment and to seek help when you do not understand. You are responsible for keeping up to date and prepared. Homework is to be completed and be kept in a notebook that must accompany you to each (f2f) class session. The homework assignments maybe graded periodically. ***However, the practice is required in order to more fully understand each topic and to successfully negotiate the quizzes and the tests***.

Assessments:

There will be random quizzes given over the assigned homework in which no make-ups will be allowed. The total number of quizzes for the semester is unpredictable but only a portion will count as the quiz grade. **Make-up quizzes will NOT be given.**

Tests:

There will be six tests (final exam exclusive) face-to-face (f2f) unless circumstances change. Exams will be f2f unless there exist **verified extenuating circumstances** in which the exams will be conducted online through virtual meetings. The final exam will be comprehensive.

If the final exam score is greater than any non-zero major exam score then the final exam score replaces the major exam score. In other words, the major exam score will be deleted, and the final exam score will count two times (an exception is the Honest Effort Rule (**H.E.R.**) policy). See your OUTLINE for the approximate date for each test.

Make-up Policy:

There is no automatic provision for making up exams. Only under **verified extenuating circumstances** (e.g., death in the family, hospitalization, +COVID test) will make-up exams be inevitable. These situations will be dealt with on a trial-by-trial basis. If at all possible, the instructor should be notified prior to missing an exam.

If you happen to miss an exam, a grade of **0** will be administered, and under the **H.E.R.** (Honest Effort Rule), this missed exam of grade **0** will not be replaced by the final exam even if the final exam is greater.

Grading Policy:

Your final grade will be based solely on major exam scores, quiz average, and a comprehensive final.

Grading Score:

$$\text{Final score} = \frac{\text{Test 1} + \text{Test 2} + \text{Test 3} + \text{Test 4} + \text{Test 5} + \text{Test 6} + \text{Quiz Avg.} + \text{Final Exam score}}{8}$$

NOTE: If the final exam score is greater than the least non-zero major exam score (excluding the Homework/Quiz avg.) then the final exam score replaces the least non-zero major exam score. In other words, the major exam score will be deleted and the final exam score will count two times.

Grading Scale:

Table 2 - Grading Scale

A:	90 and above	D:	60 – 69
B:	80 - 89	F:	59 or below
C:	70 - 79		

Borderline Grades: These grades will be evaluated with regard to attendance and mature conduct in class.

Blackboard Gradebook: Your grades will be accessible in **MA Bb** Gradebook. However, I consider Bb Gradebook the UNOFFICIAL grade because, at any time, it may not contain all your grades for the course. For your final score in this course, you will obtain at the end of the semester **through Texan Connect &/or Colleague.**

Return to Table of Contents

Study:

You should normally spend approximately 2-3 hours outside of class in study for each hour of lecture. Some material will require more time than other material. Also, your mathematical background is a major factor in the time spent completing the homework. Try to study the assigned lesson as soon after the class meets if possible. With your greatest effort, try not to get behind on the homework! Refer to the "How to Study" sheet for further detailed studying suggestions.

Notebook: Homework, quizzes, tests, and other useful material should be kept in a notebook in which the notebook will be used as a reference and study guide. The notebook will be brought to class everyday! The following material will be placed in the notebook in the order listed:

- Cover sheet including Name, Class, and Semester,
- Syllabus,
- Procedure pages,
- Assignment sheet,
- Notes,
- Work,
- Quizzes,
- Tests, &
- Miscellaneous

Table 3 – Notebook Material

*To print all the material for your notebook, please visit the **MA Blackboard** page. All printed material needs to be read at least once during the term of this course.*

Tutoring:

Free tutoring is available in the Math-Engineering building (Levelland campus, room M116) and online. For the Math-Engineering building tutor, please remember to sign in when you seek help from a tutor. For free online tutoring, please refer to **MA Bb**.

Video Review Recordings:

Video Review Recordings for many topics in this course are available at the following web addresses

College Algebra: http://www.youtube.com/playlist?list=PLXbDWrtfFWZFyJsxoTSmTO_0J7vBDTuRy

The topics available for this class are

For **Math Analysis:**

1. Linear Programming – Graphical Method
2. Linear Programming – Standard Simplex Method
3. Nonstandard Simplex

From **College Algebra:**

8. Quadratic equations
9. Functions
11. Inequalities
12. Lines (Slopes,etc.)
13. Graphing
16. Exponential & Logarithmic Functions
17. 2 x 2 Systems
18. 3 x 3 Systems
19. Systems of Inequalities
20. m x n Systems
21. Solving Systems of Equations using Matrices
22. Operations with Matrices
23. Determinants
24. Cramer's Rule

Table 4 – Math Video Reviews

Critical Dates:

Jan 19	Martin Luther King, Jr. Day	*April 10*	**WEB Pre-registration for Fall, Spring Interim, & Summer 2026**
March 16 – 20	Spring Break	**Final Exams**	
April 3	EASTER	*May 4*	*(10:15a – 12:15p, Monday)*
April 30	Last Day to Drop		

Table 5 - Special Dates

Return to Table of Contents

VI. Responsibilities & Consequences

Student Responsibilities:

- Attend class and be aware of announcements made in class.
- Work homework problems early enough to seek help if needed.
- Form study groups.
- Get help from tutors, tapes, and/or the instructor.
- Read and know the attendance policy.
- All students are encouraged to implement good hygiene measures such as washing hands regularly, using hand sanitizer, and covering coughs/sneezes. Hand sanitizing stations are available across all SPC locations.
- ** Please, *turn off cell phones and pagers during class!* **
  - **If the instructor determines that activation of a cell phone, pager, PDA, Ipod, laptop, or any electronic device interrupts the lecture or classroom discussion or impedes the progress of any student then the instructor may ask the student to leave the class temporarily or permanently.**
  - **No technologic devices such as cell phones, PDA's, etc. are to be used during tests or in-class quizzes.**
- **Follow the classroom policy, no food or drink allowed in the classroom if posted.**
- **In addition to the No Food or Drink classroom policy and in accordance to campus policy, no tobacco products are to be permitted and consumed in class.**
- **Do not dress for the beach or for bed.**
- **You will obtain your final grade for the class through Texan Connect &/or Colleague.**

Cell Phone Policy:

All students will, during each class period and for its duration, place and keep their cell phone in its deactivated state, provided that they are at the present time in possession of said device, face-down in the right-hand corner and on the top surface of their desk unless the cell phone is used as a laptop function. If a student's cell phone activates and/or the student engages in text messaging during class at anytime during the semester, the student, by the instructor's discretion, could be permanently dismissed from the class for the remainder of the semester. If a student's cell is activated during class and/or the student engages in text messaging determined by the instructor, and **the student chose not to place their phone on top of their desk as mentioned above** then the student will be dismissed from the class by the instructor permanently.

Academic 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 serious offense and renders the offender liable to serious consequences, possibly suspension. For more detail, see "Academic Integrity" and "Student Conduct" in the South Plains College General Catalog.

You are expected to work alone on all quizzes and tests. You are not allowed to use any electronic device other than your calculator during a quiz or test. If you choose to cheat, you will be withdrawn immediately from this class with a grade of "F."

Academic Misconduct:

Complete honesty is required from students in all facets of course work including homework assignments, tests, and the final exam. See the South Plains College Catalog for more detail.

Sanctions for Cheating or Plagiarizing:

A grade of "F" in the course will be assigned to any student caught cheating or plagiarizing; additional sanctions may also be considered. Students are responsible for understanding the meanings of the words cheating and plagiarizing.

VII. Questions:

I invite all your questions **except** the following:

1. I wasn't able to make it to class. Did I miss anything? (Yes.)
2. Is this going to be on the test? (Perhaps, not directly, but if the ideas were not important, I would not be discussing them in class.)
3. Do you have the test graded? (I normally have the tests graded by the next class day. However, there are times that I do not have them graded but I will have them graded as soon as I can.)

Verified Extenuating Circumstances

Death in the family, hospitalization, +COVID test, etc. with written proof.

Return to Table of Contents

VIII. Objectives:

Course 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 Objectives: Upon completion of this course and receiving a passing grade, the student will have mastered at least 70% of the course objectives. The course objectives state that 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.

IX. SPC Policies & Procedures

A. Diversity:

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.

B. Disability Statement:

Students with disabilities, including but not limited to physical, psychiatric, or learning disabilities, who wish to request accommodations 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.

C. 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.

D. Sexual Misconduct:

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. Dr. Lynne Cleavinger, 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 Dr. Cleavinger at 716-2563 or lcleavinger@southplainscollege.edu or go by the Health and Wellness Center. You can schedule an appointment with a counselor by calling 716-2529.

E. Title IX Pregnancy Accommodations Statement:

If you are pregnant or parenting (paternal or maternal) with children under the age of 18 per **Texas Education Code 51.982** and Title IX you have a right to reasonable accommodations to help continue your education. To activate accommodations you must submit a **Title IX pregnancy and parenting 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 **rcanon@southplainscollege.edu** for assistance.

F. Campus Concealed Carry:

Texas 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.

G. AI use:

Artificial Intelligence (AI) Policy

Return to Table of Contents

X. Course Outline

			MA Course Outline This schedule is tentative and subjective to change. Changes will be announced in class.
Week	**Date**		**Topics and Sections Covered**
1	1/12, Mon	Lesson 1	**Introduction,** Misc The Number System, Prime Factorization, GCF, & LCM
	1/13, Tues	Lesson 2	**Integer Rules, Fractions: Multiplication & Division**
	1/14, Wed	Lesson 3	Fractions: Addition & Subtraction
	1/15, Thurs	Lesson 4	**Evaluating Exponents and Radicals: Square and nth Roots**
2	***1/19, Mon***		***Martin Luther King, Jr. Day***
	1/20, Tues	Lesson 5	**Order of Operations**
	1/21, Wed	Lesson 6	Rules of Exponents, Part 1
	1/22, Thurs	Lesson 7	**Rules of Exponents, Part 2**
3	1/26, Mon	Lesson 8	More with Rules of Exponents
	1/27, Tues		***Review***
	1/28, Wed		**TEST 1 – Numbers & Operations**
	1/29, Thurs	Lesson 9	**Radicals: Add & Subtract**
4	2/2, Mon	Lesson 10	Polynomials: Add, Subtract, Multiply, & Divide
	2/3, Tues	Lesson 11	**Solving Linear Equations in One Variable**
	2/4, Wed	Lesson 12	The Coordinate Plane, Slope, Intercepts, & Equations of Lines
	2/5, Thurs	Lesson 13	Parallel & Perpendicular Lines
5	2/9, Mon	Lesson 14	1.1 Linear Equations & Inequalities 1.2 Graphs & Lines
	2/10, Tues		*Review*
	2/11, Wed		**TEST 2 – Linearity**
	2/12, Thurs	Lesson 15	2.1 **Functions**
6	2/16, Mon	Lesson 16	Factoring: GCF & Trinomials such that a=1
	2/17, Tues	Lesson 17	**Factoring: GCF & Trinomials such that a not =1 and Special Products**
	2/18, Wed	Lesson 18	Solving Quadratics by Factoring, Square Root Property, and Completing the Square
	2/19, Thurs	Lesson 19	2.3 **Quadratic Functions**
7	2/23, Mon	Lesson 20	2.4 Polynomial Functions
	2/24, Tues	Lesson 21	**Solving Rational Equations**
	2/25, Wed	Lesson 22	2.5 Rational Functions
	2/26, Thurs		***Review***
8	**3/2, Mon**		**TEST 3 – Polynomial & Rational Functions**
	3/3, Tues	Lesson 23	2.6 **Exponential Functions**
	3/4, Wed	Lesson 24	2.7 Logarithm Functions
	3/5, Thurs	Lesson 25	**Logarithmic Properties**
9	3/9, Mon	Lesson 26	Solving Logarithmic Equations
	3/10, Tues		***Review***
	3/11, Wed		**TEST 4 – Exponential & Logarithmic Functions**
	3/12, Thurs	Lesson 27	3.1 Simple Interest 3.2 Compound & Continuous Compound Interest
	3/16 – 3/20		***Spring Break***
10	3/23, Mon	Lesson 28	3.3 Future Value of an Annuity – Sinking Funds
	3/24, Tues	Lesson 29	**3.4 Present Value of an Annuity**
	3/25, Wed	Lesson 30	3.4 Present Value of an Annuity: Amortize Amortization Schedule
	3/26, Thurs	Lesson 31	**Mixture: Future Value & Present Value**

11	3/30, Mon	Lesson 32	Mixture: Future Value & Present Value *Review*
	3/31, Tues	Lesson 33	*4.1* ***Systems of Linear Equations in Two Variables***
	4/1, Wed		**TEST 5 – Mathematics of Finance**
	4/2, Thurs	Lesson 34	4.2 **Systems of Linear Equations & Augmented Matrices** 4.4 **Matrices: Basic Operations**
	4/3, Fri		***Easter Holiday***
12	4/6, Mon	Lesson 35	4.3 Gauss-Jordan Elimination (GJE)
	4/7, Tues	Lesson 36	4.3 **Gauss-Jordan Elimination (GJE) contd.**
	4/8, Wed	Lesson 37	4.4 Cramer's Rule
	4/9, Thurs	Lesson 38	**Applications of Systems**
13	**4/13, Mon**		**TEST 6 – Systems of Equations**
	4/14, Tues	Lesson 39	**Matrices: Operations & Inverses** **Applications of Matrices – Leontief Input-Output Models**
	4/15, Wed	Lesson 40	5.1 Graphing Linear Inequalities in Two Variables 5.2 Systems of Linear Inequalities in Two Variables
	4/16, Thurs	Lesson 41	**5.3 Linear Programming in Two Dimensions – A Geometric Approach**
14	4/20, Mon	Lesson 42	6.2 Simplex Method – Maximizing with Problem Constraints of form $\leq$
	4/21, Tues	Lesson 43	**6.2 Simplex Method – Maximizing with Problem Constraints of form $\leq$ contd.**
	4/22, Wed	Lesson 44	6.3 Simplex Method – Dual Problem: Minimizing with Problem Constraints of form $\geq$ contd.
	4/23, Thurs	Lesson 45	**6.3 Simplex Method – Dual Problem: Minimizing with Problem Constraints of form $\geq$ contd.**
	4/24, Fri		**UIL –** No office hours
15	4/27, Mon	Lesson 46	6.4 Simplex Method – Maximization & Minimization Problem Constraints
	4/28, Tues	Lesson 47	**6.4 Simplex Method – Maximization & Minimization Problem Constraints contd.**
	4/29, Wed	Lesson 48	Introduction to Probability & Expected Value
	4/30, Thurs		***Review***
Finals	**5/4, Mon**		***FINAL EXAM:*** **10:15 – 12:15pm**

Table 6 - Course Outline

Return to Table of Contents

Index

ACKNOWLEDGMENTS

I owe a debt of gratitude to Charlene Perez, Professor of CIS, at South Plains College for tolerating my incessant number of questions and ideas all the while being at my occasional disposal during the semester I attended BCIS 1305 – Business Computer Applications which primarily aided in the shape and refinement of this syllabus in terms of all its bells and whistles.

Return to Table of Contents