

Instructor Information	
Instructor	Jake Meadows
Email	meadowsj@lamarpa.edu
Phone	(409) 984-6419
Office	Student Center - Room: 403
Office Hours	MW: 1:00pm - 2:30pm TR: 12:00pm - 2:30pm F: 1:00pm - 3:00pm Other times by appointment.
Additional Contact Information	Please email me from your @lamarpa.edu email address or else I may not receive your email.
Course Information	
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.
Required Textbooks	<i>Textbook Purchasing Statement: A student attending Lamar State College Port Arthur is not under any obligation to purchase a textbook from the college-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.</i> Mathematics for Business and Social Sciences, by Kathryn Bollinger and Vanessa Coffelt, 2020. This is an open source text and is available to download for free online at: https://oaktrust.library.tamu.edu/handle/1969.1/188687 (It is also available on Blackboard)
Additional Materials/Resources	No additional resources are required for this course.
Corequisites/Prerequisites	MATH-0332 Intermediate Algebra
Learning Outcomes	- Apply elementary functions, including linear, quadratic, polynomial, rational, logarithmic, and exponential functions to solving real-world problems. - Solve mathematics of finance problems, including the computation of interest, annuities, and amortization of loans. - Apply basic matrix operations, including linear programming methods, to solve application problems. - Demonstrate fundamental probability techniques and application of those techniques, including expected value, to solve problems. - Apply matrix skills and probability analyses to model applications to solve real-world problems.
Core Objectives	- Communication skills: Students will demonstrate effective written, oral and/or visual communication. - Critical Thinking Skills: Students will engage in creative and/or innovative thinking, and/or inquiry, analysis, evaluation, synthesis of information, organizing concepts and constructing solutions. - Empirical and Quantitative Skills: Students will demonstrate applications of scientific and mathematical concepts.
Lecture Topics Outline	<u>Chapter 1 Matrices</u> 1.1 Basic Matrix Operations 1.2 Matrix Multiplication <u>Chapter 2 Linear Models and Systems of Linear Equations</u> 2.1 Review of Lines 2.2 Modeling with Linear Functions 2.3 Systems of Two Equations in Two Unknowns 2.4 Setting Up and Solving Systems of Linear Equations

Chapter 3 Linear Programming
3.1 Setting Up Linear Programming Problems
3.2 Graphing Systems of Linear Inequalities in Two Variables
3.3 Graphical Solution of Linear Programming Problems
3.4 Simplex Method

Chapter 4 Basic Probability and Applications

4.1 Mathematical Experiments
4.2 Basics of Probability
4.3 Rules of Probability
4.4 Probability Distributions and Expected Value

Chapter 5 Functions

5.1 Relations and Functions
5.2 Polynomial Functions
5.3 Rational Functions
5.4 Power and Radical Functions
5.5 Piecewise-Defined Functions
5.6 Exponential Functions
5.7 Combining and Transforming Functions
5.8 Inverse Functions and Logarithms

Chapter 6 Mathematical Finance

6.1 Interest and Effective Rates
6.2 Annuities, Sinking Funds, and Amortization

**Major Assignments
Schedule**

Please reference Blackboard for assignment access.

Final Exam Date

May 12, 2025 - 8:10 AM

Grading Scale

90 - 100=A 80 - 89=B 70 - 79=C 60 - 69=D Below 59 = F

**Determination of
Final Grade**

Attendance - 10%
Homework - 15%
Quizzes - 15%
Exam 1 - 15%
Exam 2 - 15%
Exam 3 - 15%
Final Exam - 15%

Course Policies

Instructor Policies

Homework:

Each section of the text is accompanied by a related homework assignment. Homework assignments will be available on Blackboard through an open-source software called My Open Math. Unlike many homework programs used by colleges and universities, My Open Math is 100% free and does not require you to create an account to use. You may access your homework at any time through Blackboard. It is your responsibility to check Blackboard for available assignments and to complete them in a timely manner. Due dates will always be made explicit in Blackboard and you will be notified via announcement and email if any are adjusted. Homework assignments will account for 15% of your final grade.

Quizzes:

Each chapter of the text is accompanied by one or more quizzes. As with homework assignments, these quizzes will be available on Blackboard. As before, it is your responsibility to stay up to date with quizzes and their due dates. Your lowest quiz score will be dropped at the end of the semester when calculating your final grade. Your quiz average will account for 15% of your final grade.

Exams:

There will be three mid-term exams scheduled at regular intervals throughout the semester. Each of the mid-term exams will count as 15% of your final grade. There will also be a comprehensive final exam at the end of the semester which will also count as 15% of your final grade. There will be no make-ups or extensions for the exams. I will replace your lowest mid-term exam score with whatever score you make on the final exam (including grades of zero for missed exams), if this improves your overall score.

Attendance Policy

While attendance is important for success in any classroom, attendance with active participation is crucial for success in a mathematics course. As such, students will be expected to attend all class meetings, for the full duration. Students will be expected to arrive to class prepared and to engage in class activities when appropriate.

Attendance will account for 10% of the student's final grade in the course. Attendance will be recorded at the beginning of each class period. Each student may have at most 2 unexcused

absences before their grade is affected. Absences may only be excused at the instructor's discretion and may only be accepted if the instructor is notified prior to the missed class.

You are responsible for missed material which was covered when you are absent. Please visit me during my office hours or contact me through your LSCPA email account if you need any help.

Additional Information

This syllabus may be updated at any time during the semester. Any such change will be announced in class and/or through Blackboard and email. If you ever have questions about the syllabus, please feel free to ask me.

Institutional Policies

MyLSCPA

Be sure to check your campus email and Course Homepage using MyLSCPA campus web portal. You can also access your grades, transcripts, academic advisors, degree progress, and other services through [MyLSCPA](#).

Academic Honesty

Academic honesty is expected from all students, and dishonesty in any form will not be tolerated. Please consult the LSCPA policies (Academic Dishonesty section in the Student Handbook) for consequences of academic dishonesty.

ADA Considerations

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the [Disability Services Coordinator](#), Room 117, in the Student Success Center. The phone number is (409) 984-6241.

COVID 19 Information

The Lamar State College Port Arthur (LSCPA) Student Code of Conduct COVID 19 Policy requires students who have been diagnosed with COVID 19 to report their condition directly to their local health department. Students should also contact their course faculty to report their quarantine status. In addition, this policy requires all students to wear face coverings when directly exposed to COVID 19 in compliance with the criteria included in the policy. For more information please refer to the COVID 19 link on the LSCPA website.

Facility Policies

No food or tobacco products are allowed in the classroom. Only students enrolled in the course are allowed in the classroom, except by special instructor permission. Use of electronic devices is prohibited.

HB 2504

This syllabus is part of LSCPA's efforts to comply with Texas House Bill 2504.

Mandatory Reporting of Child Abuse and Neglect

As per Texas law and LSCPA policy, all LSCPA employees, including faculty, are required to report allegations or disclosures of child abuse or neglect to the designated authorities, which may include a local or state law enforcement agency or the Texas Department of Family Protective Services. For more information about mandatory reporting requirements, see [LSCPA's Policy and Procedure Manual](#).

Title IX and Sexual Misconduct

LSCPA is committed to establishing and maintaining an environment that is free from all forms of sex discrimination, including sexual harassment, sexual violence, and other forms of sexual misconduct. All LSCPA employees, including faculty, have the responsibility to report disclosures of sexual misconduct, including sexual harassment, sexual assault (including rape and acquaintance rape), domestic violence, dating violence, relationship violence, or stalking, to LSCPA's Title IX Coordinator, whose role is to coordinate the college's response to sexual misconduct. For more information about Title IX protections, faculty reporting responsibilities, options for confidential reporting, and the resources available for support visit [LSCPA's Title IX website](#).

Clery Act Crime Reporting

For more information about the Clery Act and crime reporting, see the [Annual Security & Fire Safety Report](#) and the [Campus Security website](#).

Grievance / Complaint / Concern

If you have a grievance, complaint, or concern about this course that has not been resolved through discussion with the Instructor, please consult the Department Chair.

Department Information

General Education and Developmental Studies

Chair: [Dr. Steven Zani](#)
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Phone: (409) 984-6431