

MATH 1324 Business Mathematics Syllabus

Instructor: Jason Groves
e-mail: jgroves@southplainscollege.edu
Office Hours: By Appointment

Office: M107 (Levelland)
Phone: 806-716-2739

Prerequisites: two years of high school algebra, successful completion of MATH 0320, or suitable TSI score.

Materials: College Mathematics 13th ed. by Barnett, Ziegler, Byleen. Suitable writing instruments and paper for taking notes and completing assignments. Calculators with exponential and logarithmic functions are required. Graphing Calculators are permitted but not required (NOTE: the TI-89, TI-*n*spire and above are *not* permitted).

Core Curriculum: This course satisfies the following Core Objectives:
Communication Skills:

- Develop, interpret, and express ideas through written communication
- Develop, interpret, and express ideas through oral communication
- Develop, interpret, and express ideas through visual communication

Critical Thinking:

- Generate and communicate ideas by combining, changing, and reapplying existing information
- Gather and assess information relevant to a question
- Analyze, evaluate, and synthesize information

Empirical and Quantitative Competency Skills:

- Manipulate and analyze numerical data and arrive at an informed conclusion
- Manipulate and analyze observable facts and arrive at an informed conclusion

Expected Learning Outcomes: At the end of this course, students should be able to competently perform the following:

1. Demonstrate and apply knowledge of functions, including domain, range, composition, and inverses.
2. Understand polynomial, rational, radical, exponential, and logarithmic functions, and solve related equations and applications.
3. Use functions to model and understand interest, including annuities, sinking funds, and amortizations.
4. Solve systems of linear and non-linear equations, and apply them to solve problems.
5. Use matrix methods to solve systems of linear equations and linear programs.

IT IS THE RESPONSIBILITY OF THE STUDENT TO BE FAMILIAR WITH SOUTH PLAINS COLLEGE POLICIES. BELOW ARE ITEMS SPECIFIC TO THIS COURSE

Assessment: Grading will be done according to the standard 10 percent scale (i.e. 100% - 90% is an A, etc.) with assignments weighted according to the following:

Quizzes	5%
Exams	75%
Final Exam	20%

Class Attendance: Students are expected to be in class and prepared for the day's lesson. Students are responsible for the material covered in this course, whether or not they are in class for any reason. A student missing two consecutive weeks of classes or 5 individual class days without continuing notification will be dropped from the course. Please note that state law only allows for 6 withdrawn courses total.

Quizzes: Quizzes will be given daily (except on exam days) to determine the collective standing of the class. Problems will be taken from the homework directly.

Exams: There will be at least three midterm exams given during this course. Questions will be similar to assigned homework problems. During exams cell phones, laptops, and other such objects should be turned off and put away. There is no tolerance for violations. Students who break these rules will be asked to leave the exam (counted as an absence) and receive a zero for their exam grade. *Makeup exams are not given.*

Final Exam: The final exam is comprehensive, and a required part of the course. Failure to take the final exam results in an automatic F. The Final Exam will be held in this classroom on Tuesday, July 11, from 4 pm - 8 pm

Extra Credit: Extra Credit is not offered except for the possibility of bonus questions on exams (final exam excluded)

Civility in the classroom: Students are expected to assist in maintaining a classroom environment that is conducive to learning. Given that students may be asked to present material as a part of the course, and contribute openly in class, troublesome behavior will not be tolerated. At a minimum, this includes use of cell phones, making offensive remarks, reading newspapers, arriving late, leaving early or engaging in any other form of distraction. Infractions will be dealt with proportionally to the offense, and may include dismissal from that class period (which will count as an absence on your attendance record). Tobacco products are not permitted in the classroom.

Honesty: "Scholastic dishonesty" includes but is not limited to cheating, plagiarism, collusion, falsifying academic records, misrepresenting facts, and any act designed to give unfair academic advantage to the student. Incidents of academic dishonesty will be promptly reported and dealt with.

Campus Resources: Students have access to tutoring in M116 on the Levelland campus, or Building 4 on the Reese campus. You may access other videos on blackboard by logging in with the username “mvideos” (the password is “mvideos” as well.) Other resources include YouTube, Khan Academy, and many other online sources.

ADA Compliance: SPC Disability Statements

Levelland Campus 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 to federal law, a student requesting accommodations must provide acceptable documentation of his/her disability. For more information, call or visit the Disability Services Office in the Student Services Building, 806-716-2577.

Reese Center and the Byron Martin Advanced Technology Center (ATC) 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 to federal law, a student requesting accommodations must provide acceptable documentation of his/her disability. For more information, call or visit the Disability Services Office in Rooms 809 and 811, Reese Center Building 8, 806-716-4675.

1324-summer calendar

Day	Date	Topics	Section
Monday	06/05/17	Algebra Review – Lines	A.1, 1.1, 1.2
Tuesday	06/06/17	Algebra Review – Quadratic Equations and Exponents	A.2 – A.7
Wednesday	06/07/17	Algebra Review – Functions	2.1 – 2.4
Thursday	06/08/17	Exponential and Logarithmic Functions	2.5, 2.6
Monday	06/12/17	Exam 1	
Tuesday	06/13/17	Finance – Simple and Compound Interest	3.1, 3.2
Wednesday	06/14/17	Finance – Annuities and Amortizations	3.3, 3.4
Thursday	06/15/17	Exam 2	
Monday	06/19/17	Algebra Review – Linear Systems	4.1
Tuesday	06/20/17	Linear Systems with Matrices	4.2, 4.3
Wednesday	06/21/17	Matrix Arithmetic	4.4, 4.5
Thursday	06/22/17	Matrix Algebra, Leontif I/O Analysis	4.6, 4.7
Monday	06/26/17	Exam 3	
Tuesday	06/27/17	Systems of Inequalities	5.1, 5.2
Wednesday	06/28/17	Intro to Linear Programming	5.3, 6.1
Thursday	06/29/17	Simplex Method: Standard Maximization	6.2
Monday	07/03/17	Simplex Method: Minimization and the Dual Problem	6.3
Tuesday	07/04/17	INDEPENDENCE DAY HOLIDAY	
Wednesday	07/05/17	Simplex Method: Mixed Constraints and the two-phase method	
Thursday	07/06/17	Exam 4	
Monday	07/10/17	Final Exam Review	
Tuesday	07/11/17	Final Exam	

Mathematics for Business, Life, and Social Sciences (MATH1324)
Suggested Exercises

Section	Problems
A-1	7-28, 45 - 48
1-1	11-23, 29-33, 47-65 odd
1-2	5-34, 53-59, 63, 65, 75, 77, 79
A-2	9-30 odd
A-3	19-55 odd
A-4	7-25 odd, 35-40
A-5	1-14, 39-44
A-6	1-12, 25-34, 41-65 odd
A-7	1-30 43-48
2-1	1-8, 29-35 odd, 47-51 odd, 61-73 odd, 75-79 odd
2-2	1-8, 47-51 odd, 69-72
2-3	1-8, 19-31 odd, 37, 39, 49, 51, 65-71 odd
2-4	1-8, 23, 25, 27, 47-51 odd, 57, 59
2-5	1-8, 29-41 odd, 55, 59, 61
2-6	1-19 odd, 43-49 odd, 61-65 odd, 87
3-1	49-79 odd
3-2	35-45 odd, 61-79 odd
3-3	27-45 odd
3-4	27-61 odd
4-1	13-33, 65-75 odd
4-2	55-79 odd
4-3	9-23 odd, 47-61 odd, 65, 67, 73-79 odd
4-4	31-49 odd, 55-58, 65, 67, 69
4-5	39-46
4-6	21-55 odd, 63-67 odd
4-7	21-27 odd, 35-41 odd
5-1	9-18, 51-61 odd
5-2	21-39 odd, 43, 44
5-3	17-33 odd, 39-47 odd
6-1	37-44, 51-58
6-2	13, 19, 29, 37, 39, 41, 43
6-3	21-31 odd, 45, 51, 53
	all (mixed constraints handout)