

South Plains College Department of Mathematic and Engineering
Math 0324/1324.C001 Math for Business and Social Sciences (CoReq)
MTWR 10:00 – 11:45 Math 122
Fall 2019 Course Syllabus

Instructor: Mrs. Jennifer K Bartlett
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Office Hours: MW 8:30-10:00, TR 9:15-10:00
F 8:30-12:00, or by appointment

Course Description: 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. This course is designed for Business, Economics, and Life and Social Science majors. It is a heavy application course, meaning the course is primarily word problems relating to the majors listed previously.

Student Learning Outcomes/Competencies:

Upon successful completion 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.

Core Objectives:

This course satisfies the following Core Objectives:

- 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.

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.
- You will need a 3-ring binder (3 inch), dividers, paper, graph paper, hole punch, pencils, and erasers.

Methods of Learning Assessment: Students will be continually assessed throughout the course via in-class group work, questioning, and board work. Other methods of assessment include:

- **Attendance:** Attendance and effort are crucial for success in this course. It is your responsibility to make sure that I have marked you present for each class. Class attendance may be taken at any time during the class period, so please do not arrive late or leave early. Leaving early and being tardy will be considered $\frac{1}{2}$ absence. You may be dropped from this course with a grade of X or F if you are absent four consecutive days or if you accrue five absences for any reason throughout the semester. Absences are not classified as 'excused' or 'unexcused'. If you should incur an absence, please refer to your syllabus, contact the instructor, or contact another student to get the assignment completed BEFORE the next class. Late homework and makeup quizzes are not an option. The last day for student-initiated drops is Thursday, November 14th.
- **Homework:** Homework will be assigned at each class meeting. The homework is not a tool by which I torture you, but rather an opportunity for you to practice the skills presented in class which you will be responsible to demonstrate on a quiz the following class period. If you are interested in passing the class, you will need to do well on the quizzes. To do well on the quizzes, you will need to complete the homework. 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

solutions 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) It must be turned in at the beginning of the class period. Late homework will not be accepted. Late is defined to be: anything turned in after the start of the class period.
- 2) Homework 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.
- 3) If you have more than one page to turn in, the pages must be stapled together. Multiple pages that are not stapled or held together by a paperclip, folded corner, spit, gum, etc. will not be accepted and be recorded with a grade of zero. You must staple multiple pages together.
- 4) Homework must be presented in an orderly manner with the problem running in a single column down the page.
- 5) ALL WORK must be shown in order to receive credit for each problem.
- 6) 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.
- 7) All assignments must be done in pencil.

No work will be graded that has been done on the given assignment sheet. The given assignment sheet is a cover sheet for your assignment. Graded work must be done on your own paper with all work and steps shown.

- **Notebook:** You will be required to keep all class materials (notes, handouts, homework, quizzes, exams, etc.) organized in a notebook (3-ring binder). These materials are subject to be turned in for grading at any time. Please make certain all materials accompany you to each class meeting. The notebook will have 4 dividers labeled the following: Notes, Homework, Quizzes & Labs, and Reviews & Exams. You will keep the corresponding material under the matching divider.
- **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 as follows:

Exam 1: Mon, Sept 9 th	Exam 5: Wed, Oct 23 rd
Exam 2: Thurs, Sept 19 th	Exam 6: Mon, Nov 4 th
Exam 3: Wed, Oct 2 nd	Exam 7: Thurs, Nov 14 th
Exam 4: Mon, Oct 14 th	Exam 8: Tues, Nov 26 th (the day before Thanksgiving break)
- **Final:** The comprehensive final will be given on Monday, December 9th from 10:15 – 12:15 as directed by the official South Plains College Schedule. No make-up final will be given. The final will cover all material covered in-class.
- **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)	10%
Exams (8 total)	70%
Comprehensive Final	20%

Grading Scale (1324):

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

Grades will be posted 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 halves of the course. However, if you complete the course and make a grade of a D or F, then your graph 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.
7. Use only pencil for all assignments.

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

Academic Integrity: Academic dishonesty will not be tolerated. You are expected to uphold the ideas of academic honesty. All work that is graded must be your own. This policy applies to all work attempted in this course. If this policy is violated the student will receive an F for the assignment and will be dropped with an F. For more details on what is considered cheating, see the South Plains College catalog. If you are caught cheating on any assignment, you will not be allowed to take another class with me in the future.

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.

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.

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.

Non-Discrimination Statement: 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.

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, please refer to the SPC policy at: (http://www.southplainscollege.edu/human_resources/policy_procedure/hhc.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.

Sexual Misconduct 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 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. Crystal Gilster, 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 Ms. Gilster at 806-716-2362 or email cgilster@southplainscollege.edu or go by the Health and Wellness Center for assistance. You can schedule an appointment with a counselor by calling 806-716-2529.

4.1.1.4 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 Crystal Gilster, Director of Health and Wellness at 806-716-2362 or email cgilster@southplainscollege.edu for assistance.

Math 0324/1324.C001 Tentative Calendar Fall 2019

Week	Day	Date	Topic	Homework Due
1	Monday	Aug 26	Syllabus, 1.1: Integer Rules, Fraction Multiplication & Division	
	Tuesday	Aug 27	1.2: Fraction Addition & Subtraction, Order of Operations	
	Wednesday	Aug 28	1.3: Exponent Rules & Radicals	
	Thursday	Aug 29	1.4: Polynomials: Add, Subtract, Multiply Radicals: Add, Subtract Factoring: GCF, Trinomials	
	Friday	Aug 30	<i>Last Day to Add</i>	
2	Monday	Sept 2	<i>No School: Labor Day Holiday</i>	
	Tuesday	Sept 3	1.5: Factoring with Leading Coefficient not 1, Special Products	
	Wednesday	Sept 4	1.6: Factoring Summary	
	Thursday	Sept 5	Review for Exam 1	
3	Monday	Sept 9	EXAM 1	
	Tuesday	Sept 10	2.1: Rational Expressions & Equations	
	Wednesday	Sept 11	2.2: Solving Linear and Absolute Value Equations	
	Thursday	Sept 12	2.3: Solving by Factoring, Quadratic Formula	
4	Monday	Sept 16	2.4: Solving by Square Root Property, Complete the Square	
	Tuesday	Sept 17	2.5: Solve Rational Equations	
	Wednesday	Sept 18	Review for Exam 2	
	Thursday	Sept 19	EXAM 2	
5	Monday	Sept 23	3.1: Graphs	
	Tuesday	Sept 24	3.2: Equations of Lines & Linear Word Problems	
	Wednesday	Sept 25	3.3: Linear Inequalities with Interval Notation	
	Thursday	Sept 26	3.4: Functions & Graphs of Functions	
6	Monday	Sept 30	3.5: Applications of Linear Functions	
	Tuesday	Oct 1	Review for Exam 3	
	Wednesday	Oct 2	EXAM 3	
	Thursday	Oct 3	4.1: Quadratic Functions and Applications	
7	Monday	Oct 7	4.2: Polynomial Functions	
	Tuesday	Oct 8	4.3: Rational Functions	
	Wednesday	Oct 9	5.1: Exponential & Log Functions	
	Thursday	Oct 10	Review for Exam 4	
8	Monday	Oct 14	EXAM 4	
	Tuesday	Oct 15	5.2 Log Properties	

	Wednesday	Oct 16	5.3: Logarithmic Properties & Equations	
	Thursday	Oct 17	5.4: Exponential Equations	
9	Monday	Oct 21	5.5: Logarithmic and Exponential Applications	
	Tuesday	Oct 22	Review for Exam 5	
	Wednesday	Oct 23	EXAM 5	
	Thursday	Oct 24	6.1: Simple & Compound Interest	
10	Monday	Oct 28	6.2: Future Value of an Annuity	
	Tuesday	Oct 29	6.3: Present Value of an Annuity	
	Wednesday	Oct 30	7.1: Direct Translation & Word Problems	
	Thursday	Oct 31	Review for Exam 6	
11	Monday	Nov 4	EXAM 6	
	Tuesday	Nov 5	7.2: Systems of Two Linear Equations	
	Wednesday	Nov 6	7.3: Gauss-Jordan Elimination (GJE)	
	Thursday	Nov 7	7.4: Applications of Systems	
12	Monday	Nov 11	7.5: Products and Inverses of Matrices	
	Tuesday	Nov 12	7.6: Applications of Matrices – Leontief Input-Output Models	
	Wednesday	Nov 13	8.1: Graphing Linear Inequalities Linear Programming: Graphical Method	
	Thursday	Nov 14	EXAM 7	
	Thursday	Nov 14	<i>Last Day to Drop a Class at SPC</i>	
13	Monday	Nov 18	8.2: Linear Programming: Applications	
	Tuesday	Nov 19	8.3: Simplex Method: Maximization	
	Wednesday	Nov 20	8.4: Maximization Applications	
	Thursday	Nov 21	8.5: Simplex Method: Nonstandard Problems	
14	Monday	Nov 25	Review for Exam 8	
	Tuesday	Nov 26	EXAM 8	
	Wed - Fri	Nov 27 - Nov 29	<i>No School: Thanksgiving</i>	
15	Monday	Dec 2	9.1: Introduction to Probability & Expected Value	
	Tuesday	Dec 3	9.2: Markov Chains	
	Wednesday	Dec 4	Review for Final	
	Thursday	Dec 5	Review for Final	
16	Monday	Dec 9	Final Exam 10:15 – 12:15	