

Course Syllabus

Math 1324 - Business Algebra

Fall 2019

Instructor: Kiyomi Kaskela

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Office Hours:

Monday	Tuesday	Wednesday	Thursday	Friday
1:45 – 2:25 PM	12:15 – 12:55 PM	1:45 – 2:25 PM	12:15 – 12:55 PM	10:00 AM – 1:00 PM
4:55 – 5:25 PM	4:20 – 5:00 PM	4:55 – 5:25 PM	4:20 – 5:00 PM	

Also by appointment

Textbook: Mathematics with Applications in the Management, Natural, and Social Sciences, 12th edition, Lial, Hungerford, Holcomb and Mullins, Pearson Education. 2019. ISBN-10: 0-13-476762-4, ISBN-13: 978-0-13-476762-8

Prerequisites: Two years of high school algebra or Math 0320, TSI compliance

Supplies: A scientific calculator for most of the semester
TI-83 or 84 for Chapter 6 and 7 (mostly for Chapter 7)

Course Specific Instructions: There are video tapes of many topics available in the room M116 in the math building at the Levelland campus. These tapes can be viewed in the lab, or checked out and taken home for viewing. These videos can also be viewed online. Go to Blackboard, for the log in name and password type “mvideos.” You can then find the appropriate course and the topic in which you are interested.

Tutoring: Students can obtain tutoring at no charge in Room M116 on the South Plains Campus in Levelland and at the Reese Center in RC212 in building 2.

Course Description: Topics include inequalities, progression, functions, systems of equations, matrices, linear programming, compound interest and annuities.

Course Purpose/Rational/Goal: The purpose/rationale/goal of this course is to introduce students to the fundamental principles in business mathematics including functions, systems of equations, linear programming, and financial math and to prepare students to study Business Calculus.

Course Requirements: To maximize the potential to complete this course, a student should attend all class meetings, complete all homework assignments, and examinations including final examinations. Also, bring your paper textbook (not e-textbook) to class since we work on many application problems.

Course Evaluation: Your grade will be determined by the 3 in-class tests (100 points each), the weekly grades (200 points total), and the comprehensive final (200 points). There will be no makeups for any test. If you miss a test by a valid reason/documentation, your final test grade will replace your missed test after being converted to a 100-point scale. For those students with the good attendance and good class participation, the lowest in-class test grade will be replaced with your final test grade after being converted to a 100-point scale (if it is higher than the in-class test).

Homework: Homework will be assigned each day, **All of your work will be shown on the homework, or it will be counted as not done.** No late homework will be accepted.

Weekly Grades: I will collect your homework assignments from the previous week or you will be given a quiz on the assignments. You may use your homework assignments on quizzes.

- 20 points each week; 15 points from the quiz and 5 points from the assignments
- You turn in your homework assignments with your quiz.
- You will work on your quiz about 20 minutes either at the beginning of class or at the end of class.
- As your semester weekly grade, the top 10 weekly grades will be chosen.

Classroom Etiquette: Class attendance is expected, not optional. Preparation for class (including homework) is to be completed before – not during – the lecture. Chronic tardiness (entrance after lecture has begun) will be handled on an individual basis at the instructor’s discretion but can include notation as absent and/or exclusion from admittance to class.

Assessment Procedures: The summary assessment of students’ mastery of the skills and concepts as specified in the expected learning outcomes will occur, with appropriate course grades assigned as follows:

630 – 700	A	In-class tests (3 x 100)	300
560 – 629	B	Weekly grades (Quizzes or Homework Assignments) (10 x 20)	200
490 – 559	C	Final exam (1 x 200)	200
420 – 489	D		
below 420	F		<hr/> 700

Attendance Policy: A student who misses two consecutive weeks of class or a total of five absences may be dropped from the class with an “X” or an “F.” If you miss a class, you are expected to get the assignment from a classmate or the instructor. You are also encouraged to come to my office during my office hours to catch up with the class. In a case a student sleeping in class, it is counted as an absent.

Student Learning Outcomes/Competencies:

1. Functions: Student will
 - 1.1. identify, evaluate, characterize and graph linear, polynomial, rational, exponential and logarithmic functions. (Chapter 3 and 4)
 - 1.2. determine the domain of a function. (3.1)
2. Linear Models: Student will
 - 2.1. set up and solve linear business functions: cost, revenue, profit. (3.3)
 - 2.2. set up and solve problems involving break-even points. (3.3)
 - 2.3. set up and solve problems involving equilibrium points. (3.3)
3. Finance: Student will
 - 3.1. use business formulas to calculate simple and compound interest. (5.1, 5.2)
 - 3.2. use business formulas to calculate effective rates. (5.2)
 - 3.3. use business formulas to evaluate annuities. (5.3, 5.4)
4. Systems of Equations: Student will
 - 4.1. solve systems of equations: by substitution, elimination, Gauss-Jordan elimination and matrix inversion. (Chapter 6)
 - 4.2. analyze the nature of the solution to a system of equations. (6.1)
 - 4.3. apply the use of technology to perform matrix operations, find the inverse of a matrix, and solve systems of equations. (6.5, 6.6, 7.7.4, 7.5, 7.6, 7.7)
 - 4.4. set up and solve applications involving systems of equations. (Chapter 6)

5. Linear Programming: Student will
 - 5.1. use graphical methods to solve linear programming problems. (7.1, 7.2, 7.3)
 - 5.2. use the Simplex Method to solve linear programming problems. (7.4, 7.5, 7.6, 7.7)
 - 5.3. set up and solve applications involving linear programming problems. (7.3, 7.5, 7.6, 7.7)
6. Algebra: Student will
 - 6.1. simplify and factor algebraic expressions involving polynomials, rational expressions, exponents, and radicals. (Chapter 3 and 4)
 - 6.2. solve linear, quadratic, exponential, logarithmic and rational equations. (Chapter 3 and 4)

CORE OBJECTIVES:

Communication Skills:

effective development, interpretation, and expression of ideas through written, oral, and visual communication.

- 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:

creative thinking, innovation, inquiry, analysis, evaluation, and synthesis of information.

- 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:

the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.

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

Academic Honesty: 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**.

Equal Opportunity: South Plains College strives to accommodate the individual needs of all students in order to enhance their opportunities for success in the context of a comprehensive community college setting. It is the policy of South Plains College to offer all educational and employment opportunities without regard to race, color, national origin, religion, gender, disability, or age.

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.

Classroom Civility: Students are expected to assist in maintaining a classroom environment that is conducive to learning. Please be respectful of your fellow classmates. **Turn off all cell phones, pagers, and electronic devices (Ipods, Mp3 players, Apple watches, etc.) before entering the room** and refrain from reading newspapers, chewing tobacco products, or otherwise being disruptive in class. Also, **no food or drinks in the classroom are allowed.**

“Your cellphone (or other electronic devices) cannot be seen or heard in the classroom.”
(Consequence: loss of 5 points from the upcoming test.)

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.

School Sponsored Events: If a student misses class because of participation (being a spectator at any sporting event does not qualify) in a school sponsored event (athletics, choir, etc.), it is the student’s responsibility to:

1. Inform the instructor about the absence **prior** to the date;
2. Hand in assignments due during planned absence **prior** to the absence (unless specifically granted permission to do otherwise);
3. Arrange with instructor to take any exams that will be missed during the period of absence.

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.

Recording Lectures: To improve the teaching method, the instructor may record the lecture with or without a notice.

Disclaimer: The instructor reserves the right to alter any class policies as deemed necessary by the instructor and will announce any changes in class. If a student has any questions about a change in policy ask the instructor for clarification.

Dropping a Course: You have to return a completed official drop form to the Admissions and Records office, if you decide to drop the course, by:

Thursday, November 14

Last Day to Drop a Course

Then, a student will receive a W (no grade penalty).

Holiday:

Monday, September 2

Labor Day

Fall Break:

Friday, October 11

No Office Hours

Thanksgiving Holiday:

November 27 - 29

No Classes

Final Examinations:

MATH1324-202 (MW)	Monday, December 9	10:15 – 12:15 PM	In our regular classroom (RC220)
MATH1324-204 (TT)	Thursday, December 12	8:00 – 10:00 AM	In our regular classroom (RC232)

“Nobody can go back and start a new beginning, but anyone can start today and make a new ending.” ~Maria Robinson

“Opportunities are usually disguised as hard work, so most people don’t recognize them.” ~ Ann Landers

Tentative Course Schedule (Math 1324 Fall 2019)

Week	Sections	Readings	Homework Assignments
Week 1	Introduction		
	§3.1	p.114 -120	(p.120~) # 1 - 41 (e4); 43, 45, 47, 51
	§3.2	p.122 - 130	(p.130~) # 1 - 25 (e4); 27~32 (all); 37, 39, 39; omit #17
	§3.3	p.134 - 142	(p.142~) # 1 - 53 (e4); add #16
Week 2	<i>Labor Day (Holiday)</i>		
	§3.4	p. 145 - 154	(p.154~) #1~61 (e4); add #31
Week 3	§3.5	p. 158~165	(p.165~) #1~25 (e4)
	§3.6	p.167 - 174	(p.174~) #1~17 (e4); #21, 23, 25, 27
Week 4			
	Test 1 (Chapter 3)		
Week 5	§4.1	p.182 - 188	(p.188~) #1~53 (e4)
	§4.2	p.191 - 194	(p.195~) #1, 3, 5, 7, 13, 17
Week 6	§4.3	p.197 - 203	(p.204~) #1~49 (e4); #55
	§4.4	p.206 - 212	(p.212~) #1~57 (e4); 63, 65, 69, 73, 77, 81; add #47
Week 7			
	§5.1	p.224 - 228	(p.228~) #3~55 (e4); Omit #11, 15
Week 8	§5.2	p.230 - 238	(p.238~) #1~61 (e4)
	§5.3	p.240 -247	(p.247~) #3~55 (e4)
Week 9	§5.4	p.249 - 258	(p.258~) #1, #1~41 (e4); #43, 45, 47, 51
Week 10	Test 2 (Chapters 4 and 5)		
	§6.1	p.269 - 273	(p.273~) #3~23 (e4); #25, 27
	§6.2	p.275 - 283	(p.283~) # 9, 24, 26, 28, #29 - 55 (e4), 63
Week 11	§6.3	p.286 - 291	(p.292~) #1~25 (e4), #27
	§6.4	p.294 - 300	(p.300~) # 1 - 29 (e4)
	§6.5	p.301 - 310	(p.310~) # 5 - 50 (e5), #52
Week 12	§6.6	p.313 - 321	(p.321~) #3~18 (e3), #27, 30, 33
	§7.4	p.354 - 364	(p.365~) # 1 - 37 (e4)
	§7.5	p.367 - 371	(p.371~) # 1 - 13 (e4)
Week 13	§7.7	p.383 - 391	(p.391~) # 1 - 37 (e4), omit #25
	§8.3	p.417 - 424	(p.425~) #3~39 (e4)
	§8.4	p.427 - 433	(p.433~) #3~39 (e4)
Week 14	Test 3 (Chapters 6, 7.4, 7.7)		
	<i>Thanksgiving Day (Holiday)</i>		
Week 15	§9.1	p.459 - 465	(p.465~) # 17 - 37 (e4); #9, 39
	§9.5	p.491 - 498	(p.498~) # 1 - 37 (e4); #8, 15; Omit #29
	Review		
Week 16	Final Exam		