MATH 1324 Mathematics for Business and Social Sciences, Fall 2021

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Office Hours:	Virtual Meetings: Mon - Thurs 11:30 am - 2 pm,		
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	or by appointment		

Note that students are responsible for knowing the policies of SPC as an institution. This information is available in the student handbook. Policies specific to the math department are found in the common course policies preceding this document. Below are the course policies specific to this course section and this instructor.

Prerequisites: Instructor's permission and successful completion of MATH 0320 or appropriate TSI Math score.

Materials: Mathematics with Applications by Lial, Hungerford, Holcomb, Mullins. Suitable writing instruments and paper for taking notes and completing assignments. Written work will be handed in virtually by use of blackboard or email (instructions for how to do this are in a later section).

Calculators with e^x and ln keys will be required. These can be found on scientific calculators (inexpensively obtained from Wal-Mart or any other big-box store) or graphing calculators. Online options such as Wolfram Alpha (wolframalpha.com), Desmos (www.desmos.com Desmos also has smartphone apps) or GeoGebra (www.geogebra.org). Smartphone apps such as Panecal or ClassCalc are also available for low cost (or free).

Blackboard (accessible via the SPC website) will be used as a central hub for the course. Students will find this syllabus, and all other course materials, as well as assignments grading rubrics, and discussion boards. Students should be checking Blackboard daily for announcements and updates, and to access the homework. Blackboard utilizes students' SPC email, students should be checking their SPC email regularly.

Students must have access to the MyMathLab system from Pearson. (MyMathLab does have an app for mobile devices, though a separate app is required to use the text.)

Regular access to a reliable computer and internet connection will be required for study and for completion of assignments. Access to a printer may be needed to print out some assignments. SPC's computer labs will be available throughout the semester as well. Students will also need a scanner, or a scanning app for submitting written assignments (iPhones do this natively, Android users can download GeniusScan for free).

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

Homework	5%
Quizzes	10%
Discussion	10%
Case Study	25%
Tests	30%
Final Exam	20%

Grades are calculated by taking the average of all of the grades in that assessment type, and then weighing them according to the proportions given above. Details of each assessment type are given below.

Class Attendance: This course is an asynchronous (not at the same time) online course, so there is no formal class to attend. Attendance is instead managed by participation in the course. Students should be involved with working the course material as often as possible in order to develop mastery of the topics presented. To account for the lack of a formal Lecture/Lab setting, to achieve the same result, students should expect to spend at least 3 hours per day, 5-6 days per week working on this course (note that the 3 hours do not have to be continuous, but that amount of time should be accumulated each day for best

results.) If a student misses 4 discussion topics, 4 quizzes, or misses 2 exams without communication or arrangements made with the instructor that student will be dropped from the course with an X or an F (depending on the student's current course average).

If a student wishes to drop the course on their own (which gives a mark of W) they may contact the registrar, Andrew Ruiz (email: `aruiz@southplainscollege.edu`). Give him the course name and section number (at the top of this document), and your SPC ID, and he will help you finish the process.

It is the policy of the South Plains College math department that online math courses cannot be repeated, regardless of success in or completion of the course. Therefore if a student fails, drops, or is administratively dropped, they will not be able to repeat the course online, and must repeat the course in a traditional classroom setting.

Students should plan their work time at the beginning of each week so that they are committed in advance to the completion of their assignments. It has been well documented that spreading out study and practice over a longer period of time helps to retain knowledge, create new connections, and gain additional insights into the material. This can also help with quizzes (see below).**Make arrangements now and plan ahead for what you will do in the event that your own computer or internet connection becomes unavailable or unreliable.**

Homework: Daily homework is essential to developing mastery over the topics presented in this course. Homework assignments are due every Thursday with that week's quiz. All homework assignments are available from the first day of classes. Homework problems may be attempted an unlimited number of times in order to achieve mastery over the topic. Each homework assignment has embedded within it various videos and interactive figures to help students understand the concepts, which they can then apply directly to the homework. Unlimited repetition allows for self-assessment and mastery. A primary use of the homework is to start building an intuition regarding each of the topics discussed in this course. This intuition can then be used to gain insights into material in future classes, so it is essential that students achieve as much mastery over the topics as possible. For best results, students should keep a notebook of all correctly worked homework problems to use as a study guide for quizzes, exams, and projects. Homework assignments close at the due date, and will not be extended except at the discretion of the instructor.

Quizzes: Quizzes will be given weekly in order to provide low-level assessment of related 'chunks' of material learned throughout the week. Quiz problems are taken from the exact same pool of problems as the homework assignments. Problems are chosen randomly from the pool, but all topics in a quiz have their own pool, so students will all be tested directly on the material covered that week. Students have 100 minutes to take a quiz, and it must be done in one sitting. They may be taken up to two times, and MyMathLab will record the better result of the two attempts. Quizzes are not dropped and cannot be made up.

Discussions: Discussion boards are available in Blackboard(named in their appropriate content area) that serve as an opportunity for students to process information together. In these boards students will find a generic social forum, as well as forums for students to post their own questions. There are extra credit opportunities for students who prove themselves helpful to the rest of the class in the discussion boards, though outside of this aspect, social and peer-tutoring boards are not graded.

There will also be one or two **graded** forums each week that focus on a particular topic to be covered that week. These particular forums serve as a way for students to modify how they process the content and to demonstrate their knowledge in group settings with feedback from classmates, in a different way than just rote calculation. The grade in these discussions will be based on the quality of the student's initial post (all other posts in a forum are invisible until the student makes their first post in the forum), as well as the quality of feedback given to one or two posts from other classmates. Finally, after having received feedback, students are to correct errors and refine their posts. Specific instructions on what constitutes quality feedback will be given in the individual discussion forums.

Case Studies: Case Studies are assignments found in Blackboard. All work must be shown, and all explanations of steps or interpretations of results must be given in complete sentences. Due dates are given on the course calendar as well as on Blackboard, and late work will not be accepted (student will receive a 0).

Exams: Midterm exams are given during this course. Questions will consist of problems similar to the assigned quizzes, as well as conceptual questions for students to tie concepts together. While you may use your textbook and written notes, it is expected that students do the exam alone, without help from other people. Smartphone apps like Photomath are strictly prohibited (see statement on academic integrity below). Exams may only be attempted once, and must be done in one sitting. Students caught cheating will be dropped from the class with an F and disciplinary action will be pursued.

As stated above in materials, ensure that your computer and internet connection are *reliable* and make appropriate arrangements (in advance!) if they are not. Exams will be opened for student testing 3 days in advance of the due date. Students may not make up exams, nor take them late. Missed exams are automatically given a zero, and students that miss two exams will be dropped from the course.

From the time an exam is opened until its due date, I will not be available to answer questions about course material.

When taking exams, students must install and use the MyMathLab Lockdown Browser. Before starting the exam, make sure all browser tabs are closed, push notifications are disabled, and other internet-based programs are closed. Interruptions from such programs may cause Lockdown to glitch, and you may lose access to the exam.

Students must show all work when taking exams. All work should be done neatly and in pencil, and submitted scans should be of reasonable and legible quality. In the Exams area of blackboard will be an assignment given for each exam. Students are to upload their scanned work there to be graded. If an exam question involves use of definitions or reading data from given graphs, "showing work" will consist of explaining the answer choices made in complete sentences (see "Showing Work" for more details). Written work for exams must be uploaded within fifteen minutes of completing the exam. The exam grade will be reduced by 10% after that, and an additional 10% for each day the work is late up to 50%.

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. Students have 4 hours to complete the final exam. While the average student may not need all 4 hours, make all efforts *now* to ensure that there will be 4 hours of uninterrupted time to take the final exam.

As with midterm exams, all work must be shown and submitted via email by the due date. The Final Exam will be due Wednesday, December 15, at 11:00 pm

Email: The email at the header of the syllabus is the best way to get into contact with the instructor. This email is also available on Blackboard in the "Send Email" tool link on the sidebar of the Blackboard course. This should be used as often as necessary to ask questions, schedule appointments for office hours (physical or virtual) or turn in written assignments in the event that blackboard is down. Students may also email incomplete parts of projects and case studies in order to get feedback from the instructor on how to proceed.

All emails should be formatted with the course number and section, and an adequate heading (i.e. "Math 1324-151 project questions" or "Math 1324-151 Chapter 3 Case Study"). Failure to format the subject line properly may result in emails being caught by SPC's email filter. Neither the instructor nor SPC is responsible for emails lost due to improper formatting.

Be sure to confirm that all relevant attachments are sent with the email and that the body of the email contains all relevant information for that correspondence.

Students that have questions while doing homework on MyMathLab may use the "Ask Your Instructor" link found in the "Question Helps" menu at the top of the problem being worked on. This sends the instructor an email link to the specific version of the problem being worked, and allows a space for the

student to describe the issue they have encountered. Emails sent this way have already been marked as "safe" and will not be caught by email filters.

Submitting Written Work: Whether done via email or through the assignments given on blackboard, students need to follow guidelines to maximize the effectiveness of their submissions. All submissions should be formatted with the course and section number, *your* first initial and last name, and the assignment. For example, if I were to submit an attachment for the chapter 3 case study, the file would be named: `1324151-jgroves-casestudy3`. As an additional measure, it is encouraged that you write your name at the top of each page of written work submission.

Showing Work: In all written assignments submitted (exam work, case studies, projects) work of one kind or another needs to be shown in order for the instructor to properly assess how much of the content has been properly learned and implemented. *When submitting written work any question or component that does not have work associated with it will be given reduced (or no) credit.* Students may view the document titled "Mathematical Writing" in the syllabus content area for specific examples of properly showing work.

Students may notice a module during quizzes and exams entitled "show work." This module has only been enabled to facilitate instructor feedback and scoring of exams, and should not be used by students. Work shown on exams must be written and submitted via the appropriate assignment link on Blackboard.

Civility in the classroom: Students are expected to assist in maintaining a classroom environment that is conducive to learning. Given that this is an online course, "the classroom" is defined as any set of interactions that students will have with one another (primarily discussion boards). Students who are found to be intentionally hurtful or disrespectful, or repeatedly detract from the focus of the discussion boards will have their grade in this category penalized (up to zero credit for a discussion assignment), and may be administratively dropped from the course (with an X or F) for creating a hostile learning environment.

It is important to note the role that students play in their own mathematical education. Just as everybody has had (and continues to have) different life experiences, we all have different mathematical experiences as well. And while it is important that the systems and institutions that people interact with (of which this class is one) are impartial, to expect such from human beings borders on impossible. To that end, it is imperative that students give space for their classmates to come into the material from where they are, and that we seek to understand each other. The most important capacity students can give each other is the space to be wrong, and to be gently guided out of misconceptions or errors. Both instructor and student are not just the product of their own hard work and thinking, but also of what their environments (both past and present) allowed them to work or think hard about.

Students in disagreements over results or processes must disagree professionally. Blanket statements ("you're wrong" or "that doesn't work") cannot be given without explicit evidence, and should still be framed more in terms of your own understanding: phrases like "I think the problem is asking for..." or "did you consider..." are more appropriate phrases to use when correcting and/or helping other students. People cannot escape their biases, but everybody can recognize that people do not always look at a problem the same way. As the saying goes: "Above all else, be kind."

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.

The ethics and appropriateness of the use of apps such as photomath on quizzes are discussed in one of the first discussion assignments. That being said, it is the policy of this class that use of these apps is strictly prohibited on all quizzes and exams.

Student Resources: Students have access to tutoring at all SPC campuses, specifically in room M116 in the Math and Engineering building on the Levelland campus, or Building 2 (rooms 206 and 208) on the

Reese campus. The Lubbock Center's tutoring is available in the common study room near the front of the building.

To schedule a face-to-face or virtual meeting with SPC tutors, go to the SPC webpage, click Student Services, and click on Tutoring. There students may choose at which center they wish to have tutoring or if they wish to have a virtual session (face-to-face sessions only require an open spot, while virtual sessions require 4 hours notice). Click the Booking link and log in with SPC credentials. Students can then choose the subject and tutor.

Students also have access to the use of Tutor.com for a few hours each week. Students can access Tutor.com directly from the blackboard homepage, or from the Help section of this Blackboard course.

Week	Dates	Topics	Homework
			How to Enter Answers into MyMathLab, Introductory Survey, Quiz 1
Week 1	8/30 - 9/3	Chapter 2: Graphs, Lines and Inequalities	Homework: 2.1, 2.2
Week 2	9/6 - 9/10	lines and inequalities	2.3, 2.4, 2.5, Discussion Board 1, case study 2, quiz 2
Week 3	9/13 - 9/17	Systems of Linear Equations and Matrix Methods	Hwk 6.1 – 6.3, quiz 3
Week 4	9/20 - 9/24	Matrix Arithmetic and Matrix Algebra	6.4 – 6.6, Discussion Board 2, case study 6, quiz 4
Week 5	9/27 - 10/1	Linear Programming with Graphs	7.1 – 7.3, quiz 5
Week 6	10/4 - 10/8	Linear Programming with the Simplex Method	7.4, 7.5, Discussion Board 3, quiz 6
Week 7	10/11 - 10/15	Non-standard Simplex Method Problems	7.6, 7.7, exam 2, case study 7
Week 8	10/18 - 10/22	Introdution to Functions, Linear Functions	3.1 – 3.3, Discussion Board 4, quiz 7
Week 9	10/25 - 10/29	Polynomial and Rational Functions	3.4 – 3.6, Discussion Board 5, quiz 8
Week 10	11/1 - 11/5	Exponential Functions	4.1, 4.2, Discussion Board 6, quiz 9
Week 11	11/8 - 11/12	Logarithmic Functions, Exponential and Logarithmic Equations	4.3, 4.4, quiz 10
Week 12	11/15 - 11/19	Simple and Compound interest	5.1, 5.2, Discussion Board 7, quiz 11
Week 13	11/22 - 11/26	Annuities	5.3, 5.4, quiz 12, exam 3, case study
Week 14	11/29 - 12/3	Probability	8.1 – 8.4, Discussion Board 8, quiz 13
Week 15	12/6 - 12/10	Expected Value, Binomial Probabilities, Markov Chains	9.1, 9.4, 9.5, quiz 14
Week 16	12/13 - 12/15		Final Exam Due