Instructor's Course Info MATH 1325-001 Fall 2022

Instructor: Joshua Keneda, Ph.D. (Dr. K)

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Office Location: Levelland Math & Engineering, Room 104

Office Phone: (806)-716-4036

Zoom Meeting ID: 218 045 5628

Office Hours: The office hours schedule is on the Blackboard page. Any student is welcome at any of the office hours. For in person hours, go to Room 104 in the Levelland Math Building. For virtual office hours, join my personal Zoom meeting (linked above) during the scheduled hours. Any student can request additional office hours by sending me an email.

Reference Textbook: (The textbook is **not** required for the course, but the student is welcome to purchase <u>any</u> of the following textbooks. The Hawkes book is cheaper but roughly the same in quality, and it comes with lifetime access if you buy through their site.)

(Optional main course textbook) Hawkes Learning (2022). Mathematics with Applications in Business and Social Sciences. <u>https://www.hawkeslearning.com/Products/Math/MABS/MathematicswithApplicationsinBusinessandSocialSciences.html</u>

(Another good option) Lial, M. L., Hungerford, T. W., Holcomb J. P., and Mullins B. (2014). Mathematics with Applications in the Management, Natural, and Social Sciences, 12th edition. Pearson. ISBN: 0134767624.

Supplies: Pencils, a 1.5-inch to 3-inch ring binder (optional) or other note-organizing means, loose-leaf paper (graph paper is recommended), access to smartphone or scanner (for uploading assignments), access to computer/webcam with internet capable of streaming/uploading video (for attending class remotely and taking exams when quarantined). <u>Scientific calculators are allowed on exams</u>, and your instructor has extras that may be borrowed for exam purposes. <u>Graphing calculators are not required, nor are they allowed in exams</u>.

Course Access: Blackboard is the online course management system that will be utilized for this course. This course syllabus, as well as any class handouts, can be accessed through Blackboard. Lectures may be attended in-person (assuming we have enough space) or via Collaborate on Blackboard. Lecture videos will be posted on Blackboard within a few days of the recordings. Login at https://southplainscollege.blackboard.com/. Your user name and password should be the same as your MySPC and SPC email logins:

User name: first initial, last name, and last 4 digits of the Student ID Password: Original CampusConnect Pin No. (found on SPC acceptance letter), unless already changed **Expected Engagement:** To maximize the potential to complete this course, a student should attend all class meetings (either in person or remotely), take notes and participate in class, and complete all homework assignments, quizzes, and examinations including final examinations.

Class Cancellation: In the event of the class being canceled by the school (for snow days, COVID, etc.), the student will *still* be responsible for the lecture material. The class will continue on the calendar presented unless otherwise noted. All information needed, including a lecture video for the canceled day(s), will be on Blackboard and should be accessed by the student.

Disclaimer: The instructor reserves the right to alter the syllabus and/or any class policies as deemed necessary by the instructor or South Plains College and will announce any changes in class. Any changes to the exam policy or dates will be announced at least one week before the new exam date. If a student has any questions about a change in policy, they should contact/ask the instructor for clarification.

To successfully complete the course objectives, the students must already be prepared to factor algebraic expressions, reduce, add, subtract, multiply, divide, and simplify rational expressions, and simplify, add, subtract, multiply and divide exponential and radical expressions. It is the responsibility of the student to make sure that they enter the class with basic algebraic skills. Contact your instructor to request additional review/supportive materials, if necessary.

Withdrawal: If you wish to withdraw from this class for any reason, you must initiate the appropriate steps on your own. You cannot assume that the instructor will drop you from the course, even if you stop attending at any point during the semester. The drop form can be obtained online in MySPC, under the Student Forms and Tools link. The last day to drop the course is on the course/lecture calendar. If you are still enrolled after the last drop day, you will be receiving a letter grade in the course. Please be aware that SPC may not permit an undergraduate student to drop a total of more than six courses (including any course a transfer student has dropped at another institution of higher education).

Email Policy: All students at South Plains College are assigned a standardized SPC e-mail account. Although personal e-mail addresses will continue to be collected, the assigned SPC e-mail account will be used as the official channel of communication for South Plains College. The Student Correspondence Policy can be found at www.southplainscollege.edu. To access the SPC student e-mail account, log in to MySPC and click the SPC Google Mail option under Campus Bookmarks. (Copied from SPC Student Guide)

Since all students have an assigned SPC email, the instructor will only acknowledge, respond, and send emails to your assigned SPC email. This ensures all correspondence from the instructor is received by the intended recipient. Please mention your class (e.g. Beginning Algebra, Business Math, etc.) in your email, so that your instructor quickly knows which class you're asking about. Your instructor will generally reply to emails within one business day.

Final Grading Policy: All grades are rounded from the tenths place. Upon the submission of grades at the end of the semester, **ALL GRADES ARE FINAL!**

Grading Scale 90 or above A 80 to 89 B 70 to 79 C 60 to 69 D 59 or below F	Assignment Weights		
	Practice Assessment		32 points
	Quizzes Homework	10 @ 2 point 12 @ 1 point	20 points 12 points
	Aptitude Assessment		68 points
	Exams Final Exam	4 @ 12 points 1 @ 20 points	48 points 20 points
	Total Points		100 points

Supplemental materials and a close approximation of your current grade are available throughout the semester on South Plains College's Blackboard server.

Exam Corrections: Students can correct <u>one</u> exam (excluding the final exam) of their choice, before the last day of the class (the last class before Finals Week) to recover fifty percent (50%) of their missed points on that exam. To complete the exam correction, the student will correct the questions missed on the exam on a different sheet of paper and return the corrections, together with the original exam. The instructor will give more details as Finals Week approaches. **This is the only "bonus point" opportunity in the class.**

Feedback: Feedback will be available within two weeks of turning in your homework/exams, but usually the instructor will feedback within one week.

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. (copied from current South Plains College catalog)

Mandated Reporting: 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 <u>mandated reporters</u> of any incidents of sexual misconduct. That means that I cannot keep information about sexual misconduct confidential if you share that information with me. Mrs. 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 Mrs. Crystal Gilster at 716-2362 or <u>cgilster@southplainscollege.edu</u> or go by the Health and Wellness Center. You can schedule time with a counselor by calling 716-2529.

Holiday/Travel Statement: If a student has pre-existing plans to travel out of the area during scheduled class times, you must inform the instructor <u>at least two weeks before your planned</u> <u>absences</u>. Failure to do so will result in the forfeiture of any assignments and/or exams that are

not completed during your dates of absence. These assignments will not be replaced or allowed for make-up work.

Homework Policy: Achieving success in this class will require giving regular effort outside of class, especially by doing homework. If you plan to be successful in this class, expect to spend a <u>minimum</u> of 4 to 6 hours outside of class every week maintaining or increasing your math skills. Homework is a planned practice for students to master the skills taught in class and necessary for higher-level mathematics courses.

Every student must do homework. Homework will be assigned daily. The assigned homework will be available on the South Plains College's Blackboard server, for optional printing. A student's homework will be given full credit if each problem is fully attempted. Points will be lost for incomplete attempts or missing work. Though the homework problems are not graded for correctness, this practice is required to more fully understand each topic and to successfully navigate the quizzes and the exams. The homework that was assigned during the previous week will be scanned to a .pdf by the student (either using a scanner or a smartphone app) and collected on the Blackboard page. No credit will be given for homeworks that are submitted in an incorrect format (e.g. as a .jpg). Due dates will be posted on the Blackboard page. Homeworks that are turned in up to one week late will receive half credit. Homeworks over one week late will receive no credit. Failure to show work on a problem will result in no credit given for that problem.

Quizzes: Quizzes will be given in class or through Blackboard to assess if the student is practicing and mastering their math skills (doing homework). Questions will be similar to the questions in the assigned homework. No make-up quizzes will be allowed. If we take more than 10 quizzes during the semester, only your top 10 quiz scores will count toward your semester grade. The other quizzes will be dropped.

Exams: Exams are used to assess the amount of the course objectives that the student has mastered. The student's indicated answer will be the answer graded and only one answer will be graded per problem. Tentative exam dates will be noted in the class calendar and announced in class. Exams must be taken in-person unless otherwise noted. Some dishonesty controls (like the use of Proctorio, etc.) may be required at the instructor's discretion. Quarantined students will take the exam online either via Proctorio or in a Zoom meeting with the instructor, and arrangements must be made via email at least two days before the exam to take the exam this way. If these arrangements are made, a working webcam and mic are required to take the exam online. Students have the scheduled class time to take exams and the time scheduled by the college to take the final exam. No student will be allowed to begin an exam after the first person has turned in their exam and left the classroom. If the student does poorly on their first exam, they are required to schedule an appointment to discuss their performance with the instructor in their office. If a student should have to miss an exam, the instructor will consider replacing the missed exam with the final exam score only if the student notifies the instructor at least two days before the exam is missed. Exams can be rescheduled with the instructor, but the request for rescheduling must be made via email at least two days before the exam takes place. If no such arrangements are made and the exam is missed, then the student will receive no credit for that exam.

As stated above, exam days are subject to change. The instructor will announce any changes.

Final Exam: There will be a **comprehensive** final exam at the end of the semester. Failure to attempt the final exam will result in a failing grade for the course. The final exam will be given at the scheduled time determined by South Plains College, not during the typical class time.

Conflicts in test schedules should be worked out with individual instructors at least a week before the final is administered. A student's library records and all financial records must be clear before the student will be allowed to take final examinations in any course.

Academic Honesty: You are expected to uphold the ideas of academic honesty and to follow the instructions given on all assignments and exams. All work that is graded must be your own. This policy applies to all work attempted in this course. If your instructor has reason to believe that this policy is violated the student will receive no credit for the relevant assignment(s) and may be dropped from the course with an **F**, at the instructor's discretion. For more details on what is considered cheating, see the South Plains College catalog.

Syllabus Content: The instructor reserves the right to change/update the syllabus/course policies throughout the semester. Students will be made aware of any changes to the syllabus by email. The rest of this syllabus contains more detailed information about SPC's policies for this course.

South Plains College Common Course Syllabus: MATH 1325 Revised August 2021

Department: Mathematics, Engineering, and Computer Science

Discipline: Mathematics

Course Number: MATH 1325

Course Title: Calculus for Business and Social Sciences

Available Formats: conventional, hybrid, and internet

Campuses: Levelland, Reese, and Dual Credit

Course Description: This course is the basic study of limits and continuity, differentiation, optimization and graphing, and integration of elementary functions, with emphasis on applications in business, economics, and social sciences. This course is not a substitute for MATH 2313 or 2413, Calculus I.

Prerequisite: Successful completion with a grade of 'C' or better in MATH 1324 or MATH 1314.

Credit: 3 Lecture: 3 Lab: 0

Textbook: (Optional main course textbook) Hawkes Learning (2022). Mathematics with Applications in Business and Social Sciences. <u>https://www.hawkeslearning.com/Products/Math/MABS/MathematicswithApplicationsinBusinessandSocialSciences.html</u>

Supplies: Please see the instructor's course information sheet for specific supplies.

This course partially satisfies a Core Curriculum Requirement: Mathematics Foundational Component Area (020)

Core Curriculum Objectives addressed:

- **Communications skills**—to include effective written, oral and visual communication
- **Critical thinking skills**—to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
- **Empirical and quantitative competency skills**—to manipulate and analyze numerical data or observable facts resulting in informed conclusions

Student Learning Outcomes: Upon completion of this course and receiving a passing grade, the student will be able to:

- 1. Apply calculus to solve business, economics, and social sciences problems.
- 2. Apply appropriate differentiation techniques to obtain derivatives of various functions, including logarithmic and exponential functions.
- 3. Solve application problems involving implicit differentiation and related rates.
- 4. Solve optimization problems with emphasis on business and social sciences applications.
- 5. Determine appropriate technique(s) of integration.
- 6. Integrate functions using the method of integration by parts or substitution, as appropriate.
- 7. Solve business, economics, and social sciences applications problems using integration techniques.

Student Learning Outcomes Assessment: A pre- and post-test questions will be used to determine the extent of improvement that the students have gained during the semester

Course Evaluation: There will be departmental final exam questions given by all instructors.

Attendance/Student Engagement Policy: Attendance and engagement are the most critical activities for success in this course. The instructor maintains records of the student's attendance and submission of assignments throughout the semester. The student is expected to attend at least eighty percent (80%) of the **total** class meetings **and** submit at least eighty percent (80%) of the **total** class assignments to have the best chance of success. If the student fails to meet these minimum requirements, the instructor <u>may</u> remove the student from the class with an X or an F, at their discretion. The student may also be removed with an X or F if the instructor has evidence of academic dishonesty, including plagiarism or cheating.

Plagiarism violations include, but are not limited to, the following:

- 1. Turning in a paper that has been purchased, borrowed, or downloaded from another student, an online term paper site, or a mail order term paper mill;
- 2. Cutting and pasting together information from books, articles, other papers, or online sites without providing proper documentation;
- 3. Using direct quotations (three or more words) from a source without showing them to be direct quotations and citing them; or
- 4. Missing in-text citations.

Cheating violations include, but are not limited to, the following:

- 1. Obtaining an examination by stealing or collusion;
- 2. Discovering the content of an examination before it is given;

- 3. Using an unauthorized source of information (notes, textbook, text messaging, internet, apps) during an examination, quiz, or homework assignment;
- 4. Entering an office or building to obtain an unfair advantage;
- 5. Taking an examination for another;
- 6. Altering grade records;
- 7. Copying another's work during an examination or on a homework assignment;
- 8. Rewriting another student's work in Peer Editing so that the writing is no longer the original student's;
- 9. Taking pictures of a test, test answers, or someone else's paper.

COVID Syllabus Statement: If you are experiencing any of the following symptoms, please do not attend class and either seek medical attention or test for COVID-19.

- Cough, shortness of breath, difficulty breathing
- Fever or chills
- Muscles or body aches
- Vomiting or diarrhea
- New loss of taste and smell

Please also notify DeEtte Edens, BSN, RN, Associate Director of Health & Wellness, at dedens@southplainscollege.edu or 806-716-2376. Proof of a positive test is required. A home test is sufficient but students must submit a photo of the positive result. The date of test must be written on the test result and an ID included in the photo. If tested elsewhere (clinic, pharmacy, etc.), please submit a copy of the doctor's note or email notification. Results may be emailed to DeEtte Edens, BSN, RN at dedens@southplainscollege.edu.

A student is clear to return to class without further assessment from DeEtte Edens, BSN, RN if they have completed the 5-day isolation period, symptoms have improved, and they are without fever for 24 hours without the use of fever-reducing medication.

Students must communicate with DeEtte Edens, BSN, RN prior to their return date if still symptomatic at the end of the 5-day isolation.

Student Code of Conduct Policy: Any successful learning experience requires mutual respect on the part of the student and the instructor. Neither instructor nor student should be subject to others' behavior that is rude, disruptive, intimidating, aggressive, or demeaning. Student conduct that disrupts the learning process or is deemed disrespectful or threatening shall not be tolerated and may lead to disciplinary action and/or removal from class.

4.1.1.1. Diversity Statement

In this class, the teacher will establish and support an environment that values and nurtures individual and group difference 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.

4.1.1.2. Disabilities 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, Lubbock Centers (located at the Lubbock Downtown Center) 806-716-4675, or Plainview Center (Main Office) 806-716-4302 or 806-296-9611.

4.1.1.3 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.

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 <u>activate</u> accommodations you must submit a Title IX pregnancy accommodations request, along with specific medical documentation, to the Health and Wellness Center. 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 the Health and Wellness Center at 806-716-2529 or <u>email dburleson@southplainscollege.edu</u> for assistance.

4.1.1.5 Campus Concealed Carry Statement

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 and Frequently Asked Questions, please refer to the Campus Carry page at: http://www.southplainscollege.edu/campuscarry.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.

SPC Bookstore Price Match Guarantee Policy: If you find a lower price on a textbook, the South Plains College bookstore will match that price. The difference will be given to the student on a bookstore gift certificate! The gift certificate can be spent on anything in the store.

If students have already purchased textbooks and then find a better price later, the South Plains College bookstore will price match through the first week of the semester. The student must have a copy of the receipt and the book has to be in stock at the competition at the time of the price match.

The South Plains College bookstore will happily price match BN.com & books on Amazon noted as *ships from and sold by Amazon.com*. Online marketplaces such as *Other Sellers* on Amazon, Amazon's Warehouse Deals, *fulfilled by* Amazon, BN.com Marketplace, and peer-to-peer pricing are not eligible. They will price match the exact textbook, in the same edition and format, including all accompanying materials, like workbooks and CDs.

A textbook is only eligible for price match if it is in stock on a competitor's website at time of the price match request. Additional membership discounts and offers cannot be applied to the student's refund.

Price matching is only available on in-store purchases. Digital books, access codes sold via publisher sites, rentals and special orders are not eligible. Only one price match per title per customer is allowed.

Note: The instructor reserves the right to modify the course syllabus and policies (with notification to students of any changes) at any point during the semester.

Math 1325-001 Tentative Schedule

Fall 2022

Homework Assignments are <u>assigned</u> on the day shown in the chart.

Date	Topic Assignments			
Tuesday, 30 August	Introduction	Read the syllabus		
Outline for Exam 1 – Limits and the Derivative				
Thursday, 1 September	Limits	10.1 – 10.2		
Tuesday, 6 September	Infinite Limits	10.3		
	Continuity	10.4		
Thursday, 9 Cantambar	Continuity/Infinite Limits (continued)	10.3 – 10.4		
Thursday, 8 September	Review/Practice Lab with Limits			
Tuesday, 13 September	Rates of Change	10.7		
Thursday, 15 September	Tangent Lines and the Derivative	10.7		
Tuesday, 20 September	Basic Derivative Rules	10.8		
Thursday, 22 September	Review/Practice with Derivatives			
Thursday, 29 September	Exam 1 (12 points)			
Outline for Exam 2 – Advanced Derivative Rules and Applications				
Tuesday, 27 September	Exponential and Logarithmic Derivatives	13.1 – 13.2		
Tuesday, 4 October	Product, Quotient, and Chain Rules	11.1		
Thursday, 6 October	Product, Quotient, and Chain Rules (continued)	11.2		
Tuesday, 11 October	Marginal Analysis	10.9		
Thursday, 13 October	Implicit Differentiation	11.3		
Tuesday, 18 October	Related Rates	11.3		
Thursday, 20 October	Elasticity of Demand/Review	13.4		
Thursday, 27 October	Exam 2 (12 points)			
Outline for Exam 3 – Optimization: Finding Minima and Maxima				
Tuesday, 25 October	First Derivative Test	11.5		
Tuesday, 1 November	Second Derivative Test	11.6		
Thursday, 3 November	Optimization	11.6		
Thursday, 10 November Exam 3 (12 points)				
Outline for Exam 4 – Anti-Derivatives and Integration				
Tuesday, 8 November	Anti-Derivatives	14.1		
Tuesday, 15 November	Integration by Substitution (aka <i>u</i> -substitution)	14.2		
Thursday, 17 November	Definite Integrals	14.4		
	Fundamental Theorem of Calculus	14.4		
Tuesday, 22 November	Area Between Two Curves	14.3		
Thursday, 24 November	No Class (Thanksgiving Holiday)			
Tuesday, 29 November	Review/Practice with Integration			
Thursday, 1 December	Exam 4 (12 points)			
Last Day to Drop the Class				
Comprehensive Final Exam				
Tuesday, 6 December	Applications in Business and Economics	Case Study 11, 15.2		
Thursday, 8 December	Integration by Parts	15.1		
Thursday, 15 December Final Exam (20 points) – 10:15am – 12:15pm				