

South Plains College Mathematics Department
Calculus for Business and Social Sciences – MATH 1325
Course Syllabus – Spring 2018

Instructor: Karol Albus

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Office hours: As listed or by appointment.

Monday	Tuesday	Wednesday	Thursday	Friday
9:30-10:00	1:00-4:00	9:30-10:00	12:00-1:00	9:00-12:00

Disclaimer: The instructor reserves the right to alter any class policies/dates as deemed necessary by the instructor, and will announce any changes in class.

Use of Student Email: The College provides a free, official email account to all students to ensure efficient and secure communications between you and the College. Students will be required to use their college-issued email address to communicate with their instructors and all other college personnel, so it is easy to distinguish a student's email from spam. The College expects that students will utilize their college email addresses to send and receive communications with college personnel and will read email on a frequent and consistent basis.

Course Description: *MATH 1325 - Calculus for Business and Social Sciences (3:3:0) 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 2413, Calculus I. Semester Hours: 3 Lecture Hours: 3 Lab Hours: 0 Pre-requisite: MATH 1324.*

Learning Outcomes: *Successful completion of this course should reflect mastery of the following objectives.*

1. *Limits: Student will*
 - *Determine the existence of a limit.*
 - *Compute limits from a graph and from a formula.*
 - *Calculate the limit of the difference quotient*
2. *Derivatives: Student will*
 - *Calculate derivatives using the limit of the difference quotient/;*
 - *Calculate derivatives and higher order derivatives by using rules of differentiation,*
 - *Determine points of discontinuity and non-differentiability of functions.*
 - *Use the derivative to calculate rates of change.*
 - *Use the derivative to calculate the slope of the tangent line to a curve.*
 - *Analyze and sketch the graphs of functions using the first and second derivative tests.*
 - *Set up and solve business applications involving differentiation.*
3. *Integrals: Student will*
 - *Calculate indefinite and definite integrals using basic integration formulas and substitution.*
 - *Calculate area using definite integrals*
 - *Set up and solve business applications involving integration.*

Course Supplies:

- **Required:** TI 83 or TI 84 graphing calculator.
- **Required:** Large 3-ring binder, dividers, notebook paper, graph paper, hole punch, pencils, and erasers.
- **Required:** (textbook) College Mathematics for Business, Economics, Life Sciences, and Social Sciences, 13th Edition, Barnett, Ziegler, and Byleen, Prentice Hall, 2011. ISBN-10 0-321-361400-3, ISBN-13: 978-0-321-61400-1
- **Warning:** Do not expect your instructor to have supplies for you to borrow.

Homework/Quizzes/ Binder Checks:

- Homework will be assigned at each class. Work the problems early enough to seek help if needed.
- Homework is due at the beginning of the next class. **Late homework will not be accepted.**
- Quizzes will be given most days. **Make-up quizzes will not be given.**
- At the end of the semester the lowest 4 grades (homework/quiz/binder) will be dropped.
- All students will keep a binder which will be used as a reference and study guide.
- The binder will be checked randomly by the instructor during the semester.

Binder organization: These pages will be kept in chronological order.

- Section 1: Syllabus
- Section 2: Handouts for taking notes are posted on Blackboard. You should print these before class.
- If you are absent, it is your responsibility to get the notes from a classmate.
- Section 3: Homework
- Section 4: Quizzes (corrected on a separate sheet of paper behind the quiz).
- Section 5: Reviews/Unit Exams

Being absent does not excuse you from notes, homework or quizzes.

Exams:

- 4 Unit Exams
- Final Exam is comprehensive.
- There are no exemptions for the final.
- If you are going to miss an exam contact your instructor immediately (preferably prior to the exam). Make up exams are very rare and only be provided under extreme, documented circumstances.
- Once you begin an exam, you will not be able to leave the classroom until the exam is submitted for grading.

Grading Formula:

Enrollment in this course does not guarantee advancement to the next course level. The final responsibility for learning lies with the student. The final letter grade for this course will be based on the following:

4 Tests 16% each	64%
Homework/Quizzes/Binder.....	20%
Final Exam.....	16%

Final Grade Determination: A 90-100 B 80-89 C 70-79 D 60-69 F 59 or below

Classroom Etiquette:

- **Class attendance is expected, not optional.** Class attendance may be taken at any time during the class period, so please do not be late or leave early. Leaving early and being tardy will be considered ½ absence. You may be dropped from this course with a grade of X or F if you are absent four consecutive classes or if you exceed five absences (**for any reason**).
- Preparation for class (including homework) is to be completed before – not during – the lecture.
- Chronic tardiness (entrance after lecture has begun) is unacceptable.
- NO tobacco use of any form is allowed in the classroom.
- Discussion of course material among students is encouraged during class, but habitually disruptive students will be asked to leave.
- All electronic communication devices are to be silenced and put away during class.

Resources:

- Blackboard! The course syllabus, handouts for notes, homework, quiz keys, and reviews will be available on Blackboard.
- Free tutoring is available in M116 on the Levelland campus. Hours for the tutors will be posted by there.
- I am available to help you! Feel free to come by during my office hours or email me at kalbus@southplainscollege.edu.

Withdrawal Policy: As required by Texas Education Code Section 51.907, all new students who enroll in a Texas public institution of higher education for the first time beginning with the 2007 fall semester and thereafter, are limited to six course drops throughout their entire undergraduate career. All course drops, including those initiated by students or faculty and any course a transfer student has dropped at another institution, automatically count toward the limit. After six grades of W are received, students must receive grades of A, B, C, D, or F in all courses. There are other exemptions from the six-drop limit and students should consult with a Counselor/Educational Planner before they drop courses to determine these exemptions. Students receiving financial aid must get in touch with the Financial Aid Office before withdrawing from a course. It is the student's responsibility to drop. Excessive absences (5 or more absences) may result in an administrative withdrawal with a Grade of X or F. If you plan to withdraw, please consult with the instructor immediately.

Note: The last day to drop with a grade of W is Thursday, April 26, 2018.

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.

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

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 Center 806-716-2577, Reese Center (also covers ATC) Building 8: 806-716-4675, Plainview Center Main Office: 806-716-4302 or 806-296-9611, or the Health and Wellness main number at 806-716-2529.

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. Dr. Lynne Cleavinger, 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 Dr. Cleavinger at 716-2563 or lclevinger@southplainscollege.edu or go by the Health and Wellness Center. You can schedule an appointment with a counselor by calling 716-2529.

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.

Calculus for Business and Social Sciences Tentative Course Outline
MATH 1325.002 (MW 1:00-2:15) Spring 2018

Week	Day	Date	Lesson / Tentative Assignment
1	Wed	Jan 17	Algebra Review
2	Mon	Jan 22	10.1 Introduction to Limits
	Wed	Jan 24	10.2 Infinite Limits and Limits at Infinity
3	Mon	Jan 29	10.3 Continuity
	Wed	Jan 31	10.4 The Derivative
4	Mon	Feb 5	10.5 Basic Differentiation Properties
	Wed	Feb 7	Unit 1 Review
5	Mon	Feb 12	Unit 1 Exam (16%)
	Wed	Feb 14	11.1 e and Continuous Compound Interest 11.2 Derivatives of Exponential and Logarithmic Functions
6	Mon	Feb 19	11.3 Derivatives of Products and Quotients
	Wed	Feb 21	11.4 The Chain Rule
7	Mon	Feb 26	Unit 2 Review
	Wed	Feb 28	Unit 2 Exam (16%)
8	Mon	Mar 5	12.1 First Derivative and Graphs 12.2 Second Derivative and Graphs
	Wed	Mar 7	12.4 Curve Sketching Techniques
			<i>Mar 12-16 Spring Break</i>
9	Mon	Mar 19	12.5 Absolute Maxima and Minima
	Wed	Mar 21	12.6 Optimization
10	Mon	Mar 26	Unit 3 Review
	Wed	Mar 28	Unit 3 Exam(16%)
11	Mon	Apr 2	<i>Easter Holiday</i>
	Wed	Apr 4	13.1 Antiderivative and Indefinite Integrals
12	Mon	Apr 9	13.2 Integration by Substitution
	Wed	Apr 11	13.3 Differential Equations; Growth and Decay
13	Mon	Apr 16	13.5 The Fundamental Theorem of Calculus <i>Online registration begins for the fall semester</i>
	Wed	Apr 18	Unit 4 Review
14	Mon	Apr 23	Unit 4 Exam(16%)
	Wed	Apr 25	14.1 Area Between Curves
	Thurs	Apr 26	<i>Last day to drop a class at SPC</i>
15	Mon	Apr 30	14.2 Applications in Business and Economics
	Wed	May 2	Comprehensive Final Exam Review
16	Wed	May 9	Final Exam (20%) 8:00-10:00