# Math 1325.602M Syllabus Mathematics for Business, Economics, Life and Social Sciences Mondays 5:20pm – 6:55pm Spring 2024 Room – B031

#### **Course Structure**

- Flipped course
  - Watch lecture video (Blackboard) and fill in notes before class each day.
  - Students provide questions in class to discuss and solidify topics over the lesson(s).
  - Homework is to be attempted before class.
  - o Assessments, such as labs and exams, will all be done in class.
  - All students are expected to be physically in class unless given explicit permission to be virtual.

#### Textbook

No book for this section.

# **Course Requirements/Materials**

- Attend all classes with notes and homework done in advance.
- All graded assessments assigned in class are expected to be completed in the allotted class time, unless otherwise instructed by the professor.
- Reliable internet access
- Printer (for notes), but notes can be done electronically (tablet/iPad) as long as they are written by hand
- Smart phone and/or scanner to turn a written document into a PDF file
- Solid work ethic and character.

Grading:	Daily/Participation	10%	Grading Scale:	A 90-100
_	Quizzes	10%	<del>-</del>	B 80-89
	Tests (4 total)	60%		C 70-79
	Final Exam	20%		D 60-69
				F 59 or below

<sup>\*\*\*</sup>Note: Students must justify answers or show work on all problems to receive full credit.

#### **Class Notes**

- Found on Blackboard under Course Content.
- Should be completed by each student (hand-written) using lecture videos provided on Blackboard.
- Bring all notes to class each day (2-3 inch binder recommended)
- Upload completed notes to Gradescope before class starts each day.
  - This is part of the daily participation grade.

#### **Lecture Videos**

- Found on Blackboard under Course Content.
- Watch and fill in the notes, pausing often to allow for processing time.
- Organize your questions to bring to class the next day.
- All questions posed in the lecture videos must be answered by the student prior to coming to class each day.
  - o Completion of the lecture videos is part of your participation grade each day.

#### Homework

- Written assignments
- Not graded nor submitted, but the only way to succeed in this course is to do every homework problem on every assignment.
- All work should be shown on your own paper.
- Problems should be in proper order on paper.
- Must use pencil.
- Must be done by hand (no typing).
- Show all work!!
- Must be your own work!
- Answers found on Blackboard.
- Using PhotoMath (or similar) is strictly prohibited and will result in academic dishonestly reports being submitted to your permanent record.
- Using ChatGPT on any assignment in this class is strictly prohibited.

#### Quizzes

- Could be weekly or biweekly (every other)
- Can use <u>one standard sized paper of notes</u> of your own making (must be hand-written), front and back is okay.
- Quizzes must be completed in the allotted time in class.
- No make-up quizzes are available.
  - o If you miss class on a quiz day, then you miss the quiz and will get a 0.
  - Up to 3 guiz grades will be dropped at the end of the term.
    - The exact number of dropped quiz grades depends on the total number of quiz grades there are at the end of the term.

## Tests

- 4 midterm exams and 1 final exam
- A <u>3x5 hand-written notecard</u> can be used on exams. Double-sided is okay.
- Complete in the allotted class time
- No exam grades will be dropped.
- It is in your best interest to save ALL graded documents until your final grade is assigned at the end of the term.
- Exams may be comprehensive.
- No make-up exams will be given.
  - In the event you miss a test, your final exam grade can replace up to one missed test grade.
- Test corrections are for your own benefit and will not be graded.

## **Final Exam**

- The final exam is comprehensive.
- Any student who does not take the final exam will fail the classes with F's regardless of the student's average.
- No make-up final exam will be offered.
- More details will be shared on Blackboard near the end of the term.

#### Late work

- Late work is not accepted.
- If you do not turn in an assignment on time, you will receive a zero.

## Make-up

- Make-up work is given at the discretion of the instructor.
- NO make-up labs or tests are given without <u>prior notification AND proper documentation</u>.
- If you are absent from class on an exam day, have given prior notification and proper documentation of your absence, you MUST make arrangements to take the exam BEFORE the next class period or the end of the week, whichever occurs first.
- If proper documentation and/or prior notification was not provided for your absence, and/or if
  you have not made arrangements (prior to the missed class) with the professor to take the
  missed assignment, then you will receive a 0 for that assignment.
  - Some number of grades might be dropped at the end of the term depending on how many grades in each category there are by the end of the term.
    - No test grades are dropped.

## **Attendance Policy**

- Students are expected to attend **at least** eighty percent (80%) of the total class meetings (24 classes) **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, upon their discretion.
- Unless given specific permission, students are expected to be in the class room and on time for class each class day.
- There are no excused absences, even with a doctor's note.
- Tardy
  - More than 10 minutes late
  - Leaving early
- Any student who arrives more than 45 minutes late or leaves more than 45 minutes early without instructor permission will be counted <u>absent</u> that day.
- Any student who falls asleep during class or who leaves class for an extended period of time, as
  determined by the instructor, will be counted "tardy" that day.
- Every 3 tardies count as 1 absence.
- Transportation issues? Call an Uber, get a bus pass (Route 5 drops off just one block from the Downtown Center campus – Broadway and Ave Q – and starts at 7:50am and runs until 8:45pm), call a taxi (West Texas Cab Company (806) 559-9900), or ask a friend for a ride.

## **Participation Grade**

- Daily participation grade.
- This grade is 50% attendance to/participation in class and the remaining 50% is awarded for watching the lecture video(s) prior to class and filling in and uploading the lecture notes to Gradescope before class each day.
  - Completed lecture notes should be uploaded to Gradescope.
  - Failure to upload the completed notes will result in up to 25% of the participation grade that day being deducted.
- To receive full credit for the Attendance/Participation in Class portion of this daily grade, students must:
  - Be on time to class
  - Not leave class early
  - o Not leave class for an extended period of time, as deemed by the instructor.
  - Stav awake during class
  - Not be on a cell phone or other mobile device during class

- Participate in classroom discussions
- Come prepared for class with notes/homework/review in hand.
- In the event you are absent during class, you will get 0 pts for the Attendance/Promptness portion of this grade for that day.

# **Submitting Documents Online (Gradescope)**

- Download the Gradescope app onto your smart phone.
  - o Log-in with your SPC credentials, just like you log into Blackboard.
- Students will be required to upload written work to Gradescope (notes, not homework).
- This is expected to be done clearly and legibly.
- After uploading your work, Gradescope will provide you an opportunity to indicate which
  problems are on which pages of your work. Please be sure you take the time to assign the
  problems to certain pages.

# **Academic Integrity**

- Any student involved in cheating will receive a zero on the assignment(s) and will be informed of why he/she received a zero.
- Student may be administratively dropped from the class and will receive an X or F.

## **Calculators**

- This course is taught under the assumption that each student owns a graphing calculator.
- I recommend a TI 84 series calculator.
- TI-Nspires are NOT recommended unless you are an expert at using them, as the instructor will be of little help.

#### **Class Rules:**

- Be on time and ready to learn.
- Use only pencil for all assignments.
- Have the notes completed **prior** to coming to class.
- Students are not permitted to use electronic devices, other than a calculator, in class. **Put** the cell phones away!!
- During testing, all cell phones should be placed on SILENT or turned off, and all smart watches need to be removed and placed on the floor face-down to the left of your seat.
- Any student who leaves the classroom for any reason (bathroom, phone call, etc.) during an
  exam will not be allowed to continue the exam upon their return. Once you leave the
  classroom during an exam, you are done.
- Adhere to the requirements of the Student Code of Conduct.
- If you are joining the class through virtual means, please keep your microphone on mute until you have a question.

#### **Virtual Students**

- Stay active and attentive during the entire class.
- Camera on and positioned in such a way as to allow the camera to catch both your face and your workspace.
- Keep your camera on until you have explicit permission from your instructor to turn it off.
- Students are expected to follow the same testing/quizzes/lab rules as any student in class.
- If you leave the view of the camera during an assessment without explicit permission from the instructor, you will be given a 0 on the assessment.
- Keep chat windows open during assessments as a way for the instructor to communicate (quietly) with you.
  - If the student does not keep their chat window visible to themselves during assessments and misses a message from the instructor, 15% credit may be deducted from that assignment's score.
- If you break any of the rules listed above, you will receive a 0 on the assessment.

Students who are virtual for an assessment have been given explicit permission by the
instructor to take the assessment in this format. If you are not given this permission, you are
expected to be in class for each and every assessment (labs, quizzes, tests). Instructor
permission is not given lightly nor liberally and the decision to allow a student to work virtually is
entirely at the instructor's discretion.

# South Plains College Common Course Syllabus: MATH 1325 Revised December 2022

**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, Downtown Center, 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:** *Mathematics with Applications in Business and Social Sciences*, Hawkes Learning, 2022, Hawkes Learning

**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 may remove the student from the class with an X, upon their discretion, to help the student from harming their GPA. If the student can not receive an X, the instructor will assign an F.

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.

**Student Code of Conduct Policy**: Any successful learning experience requires mutual respect from the student and the instructor. Neither the instructor nor the student should be subject to others' rude, disruptive, intimidating, aggressive, or demeaning behavior. 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.

South Plains College policies concerning diversity, disabilities, non-discrimination, Title IX Pregnancy Accommodations, and Campus Concealed Carry Statements can be found here: https://www.southplainscollege.edu/syllabusstatements/.

South Plains College policies, return to campus plan, and protocols regarding COVID-19 can be found here: https://www.southplainscollege.edu/emergency/covid19-faq.php.

**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, as well as notify students of any changes, at any point during the semester.

Tentative Calendar for Math 1325 – Spring 2024						
Week	Day	Date	Topic	Notes & HW		
1	Monday	Jan 15	<i>MLK Jr. Day</i> – <i>No Classes</i> Algebra Review	R.1, R.2, & R.3 (Do <u>not</u> turn in these assignments or notes online)		
2	Monday	Jan 22	1.1 – 1.2: Limits and Continuity <b>Quiz: R.1 – 1.2</b>	1.1 & 1.2		
3	Monday	Jan 29	1.3 – 1.4: Rates of Change and Tangent Lines & Derivatives <b>Quiz: 1.3 – 1.4</b>	1.3 & 1.4		
4	Monday	Feb 5	Exam 1	Unit 1		
5	Monday	Feb 12	2.1 – 2.3: Basic Derivative Rules and the Chain Rule and the Derivatives of Exponentials & Logarithms <i>Quiz: 2.1 – 2.3</i>	2.1, 2.2, 2.3		
6	Monday	Feb 19	2.4 – 2.5: Product and Quotient Derivatives and Elasticity of Demand <i>Quiz: 2.4 – 2.5</i>	2.4 & 2.5		
7	Monday	Feb 26	Exam 2	Unit 2		
8	Monday	Mar 4	3.1 – 3.2: Local Extrema (FDT) and Second Derivative and SDT <i>Quiz: 3.1 – 3.2</i>	3.1 & 3.2		
	Mar 11 - 15		Spring Break			
9	Monday	Mar 18	3.3: Optimization & Absolute Extrema <i>Quiz: 3.3</i>	3.3		
10	Monday	Mar 25	3.4 – 3.5: Implicit Differentiation and Related Rates <i>Quiz: 3.4</i> – 3.5	3.4 & 3.5		
11	Monday	Apr 1	Exam 3	Unit 3		
12	Monday	Apr 8	4.1 – 4.2: Antiderivatives and Integration by Substitution <i>Quiz: 4.1 – 4.2</i>	4.1 & 4.2		
13	Monday	Apr 15	4.3: Integration by Parts <i>Quiz: 4.3</i>	4.3		
14	Monday	Apr 22	4.4 – 4.5: FTOC, Average Value, and Applications of Integrals <i>Quiz: 4.4 – 4.5</i>	4.4 & 4.5		
15	Monday	Apr 29	Exam 4	Unit 4		
16	Monday	May 6	Final Exam	Comprehensive		

Last day to Drop a Class – April 25, 2024