WACO, TEXAS

# COURSE SYLLABUS
# AND
# INSTRUCTOR PLAN

## CALCULUS FOR BUSINESS AND SOCIAL SCIENCE
## MATH 1325 Section 0035

**TERI BARNES**

**This is a 16 Week Face to Face Course**

**SPRING 2026**

*"AN EQUAL OPPORTUNITY INSTITUTION"*

**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 2413, Calculus I. 3 Semester Hour

**Prerequisites and/or Corequisites**:

Prerequisites: Math 1324

Corequisites: None

**Course Notes and Instructor Recommendations:**

This has online course material and a good working knowledge of the computer is essential. Online access is needed at a speed that will facilitate streaming video and downloading of materials. Video lectures and problem solving will be provided. Pearson is the online component that will house the course information. All homework and some testing will take place in this environment. In class lectures will be provided.

**Instructor Information:**


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|---|---|
| Instructor Name: | Teri Barnes |
| MCC E-mail: | tbarnes@mclennan.edu |
| Office Phone Number: | 254 299-8880 |
| Office Location: | MATH 210 |
| Office Hours: | To Be Announced |


**CONFERENCE TIME FOR STUDENTS**

| | | |
|---|---|---|
| **Tuesday:** | **7:00-8:00 am** | **Zoom by Request** |
| | **12:00-3:00 pm** | |
| **Thursday:** | **7:00-8:00 am** | |

**Required Text & Materials**: ( No Hard Copy Text Required)

**This course is being offered as Inclusive Access—this means you do not purchase a book. The electronic course information is included in tuition payments.**

TI 83/84 Graphing Calculator Required 

**MCC Bookstore Website:** http://www.mclennan.edu/bookstore/

**Methods of Teaching and Learning:**

MyMathLab is the online component that will house the course information. Homework and testing will be done online in this environment. Lecture notes, reference materials, and videos are available there as well.

**Course Objectives and/or Competencies**:

Upon completion of this course, the student will be able to

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

**Course Attendance/Participation Guidelines:**

If a student is not in attendance in accordance with the policies/guidelines of the class as outlined in the course syllabus as of the course census date, faculty are required to drop students from their class roster prior to certifying the respective class roster. A student's financial aid will be re-evaluated accordingly and the student will only receive funding for those courses attended as of the course census date.

Before the 60% point of the semester, a student who is absent for 25% or more of a face-to-face or blended course or who misses 25% or more of assigned work for an online course will be withdrawn from the course with a grade of W. A student may also request to be withdrawn with a grade of W before the 60% point of the semester. After the 60% point of the semester, the student may request to be withdrawn if the student is passing, or be assigned the final grade earned at the end of the semester after grades have been updated to reflect missing work.

**Course Outline or Schedule:**

| Dates | Lecture/Work | Tests/Objectives |
|---|---|---|
| **Week 1** | **Orientation**<br>**12.1 Techniques for Finding Derivatives**<br>**12.2 Derivatives of Products and Quotients** | |

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|---|---|---|
| **Week 2** | **12.3 The Chain Rule**<br>**12.4 Derivatives of Exponential Functions** | |
| **Week 3** | **12.5 Derivatives of Logarithmic Functions**<br>**13.1 Increasing and Decreasing Functions** | Chapter 12 Exam |
| **Week 4** | **13.2 Relative Extrema**<br>**13.3 Higher Derivatives, Concavity, and the Second Derivative Test** | |
| **Week 5** | **13.4 Curve Sketching** | Chapter 13 Exam |
| **Week 6** | **14.1 Absolute Extrema**<br>**14.2 Applications of Extrema** | |
| **Week 7** | **14.4 Implicit Differentiation**<br>**14.5 Related Rates** | |
| **Week 8** | **15.1 Antiderivatives** | **Chapter 14 Exam** |
| **Week 9** | **15.2 Substitution** | |
| **Week 10** | **15.4 The Fundamental Theorem of Calculus**<br>**15.5 The Area Between Two Curves** | **Chapter 15 Exam** |
| **Week 11** | **16.2 Volume and Average Value** | |
| **Week 12** | **16.3 Continuous Money Flow** | |
| **Week 13** | **17.1 Functions of Several Variables**<br>**17.2 Partial Derivatives** | |
| **Week 14** | | **Chapter 16/17 Exam** |
| **Week 15** | **Review for Final** | |
| **Week 16** | | **Final Exam** |

## Course Grading Information:

1. Homework: There is a homework assignment for each section that is covered during the semester. Since the test questions will be similar to the homework problems they will be a good source of practice for the tests. Homework due dates will be posted online. You can work on homework assignments as many times as you want to improve your grade before the due date. Once the due date passes, your score is frozen. You can still access problems to practice, but you can't improve your score. Your homework average will count as 30% of your total average.

3. Tests: Five/Six tests plus a comprehensive Final. There are no makeup tests or retests. Tests will count as 50% of the final average.

**Before each test is available (online or face to face), all homework assignments must be completed with at least a 70% score for that unit. A score of 0 will be assigned to that test if the student has not met this prerequisite for testing by the indicated due date.**

4. Final Exam: A cumulative final exam is required and cannot be dropped. It will count 20% of the final average.

5. Grading in this course will be based on homework, unit/chapter tests, and a comprehensive final exam according to the following percentages.

   You can check your grades using the "Gradebook" button on the left side of the MathLab component. The standard grading scale applies:

   90 – 100 = A  80 – 89 = B  70 – 79 = C  60 – 69 = D  59 and below = F

## Late Work, Attendance, and Make Up Work Policies:

Due dates are set for all homework and test dates are scheduled. If students do not make the deadlines, those grades become zero. If a test is missed, the grade is zero. Instructor has the right to make adjustments to this policy under special circumstances.

## Student Behavioral Expectations

Students are expected to maintain classroom decorum, that includes respect for other students and the instructor, prompt and regular attendance, and an attitude that seeks to take full advantage of the education opportunity.

Click Here for the MCC Attendance/Absences Policy
**(https://www.mclennan.edu/highlander-guide/policies.html)**
Click on the link above for the college policies on attendance and absences. Your instructor may have additional guidelines specific to this course.