A. **COURSE INFORMATION**

Course number/section: MATH-1325-002  
Class meeting time: Online  
Class location: Blackboard  
Course Website: [www.bb9.tamucc.edu](http://www.bb9.tamucc.edu)

B. **INSTRUCTOR INFORMATION**

Instructor: Archana Krishnagiri  
Office location: CI 351  
Office hours: Blackboard and Webex meetings  
Telephone: 361-825-2430  
E-mail: archana.krishnagiri@tamucc.edu  
Appointments: To schedule an appointment, please email me in advance.

C. **COURSE DESCRIPTION**

**Catalog Course Description**

Students will develop and combine the concepts in and relationships between Mathematics and Business from the fundamentals of calculus and optimization in all Business fields. Students are expected to learn the materials algebraically with technology. Students will combine the concepts of limits, continuation, differentiation and integration techniques to solve problems in business, economics, and social sciences.

**Extended Course Description**

This class is intended to develop the fundamentals of calculus and optimization using technology. The topics to discuss include Graphing Functions, Trend Lines, Demand, Revenue, Cost and Profit, Differentiation (Rate of Change) and its applications, Using Solver, Integration (Area under the curve) and its applications, Normal Distributions, Simulating Normal Random Variables, Hospital Administration.

D. **PREREQUISITES AND COREQUISITES**

**Prerequisites**

Math 1324 Business Mathematics or placement into Math 1325.

**Corequisites**

None

E. **REQUIRED TEXTBOOK(S), READINGS AND SUPPLIES**

**Required Textbook(s)**

Warner + Costenoble Applied calculus 7e

**ON-LINE HOMEWORK**: The on-line homework will use the Cengage Learning website. This will require the purchase of an access code. Due dates will be posted on the Cengage system. Since there may be compatibility issues between your personal computer, I would strongly suggest working the assignments in the on-campus computer labs.
Supplies
A calculator is required for every quiz and examination. A TI-83/84 calculator or similar is recommended but not required (it may make this class more manageable). **NO TI-INSPIRE will be allowed for Exams.**

F. **STUDENT LEARNING OUTCOMES AND ASSESSMENT**
Assessment is a process used by instructors to help improve learning. Assessment is essential for effective learning because it provides feedback to both students and instructors. A critical step in this process is making clear the course’s student learning outcomes that describe what students are expected to learn to be successful in the course. The student learning outcomes for this course are listed below. By collecting data and sharing it with students on how well they are accomplishing these learning outcomes students can more efficiently and effectively focus their learning efforts. This information can also help instructors identify challenging areas for students and adjust their teaching approach to facilitate learning.

By the end of this course, students should 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.

G. **INSTRUCTIONAL METHODS AND ACTIVITIES**
- Instructional presentation of new material and concepts,
- Class discussion and problem solving analysis using critical thinking techniques,
- Individual written assignments to enhance understanding of new concepts,
- Discovery method techniques supported by a graphing utility to view the effects of shifting and translation concepts on the functions,
- Use of MyLabsPlus which includes electronic copy of the book, videos, examples, and study hints.

**IMPORTANT MESSAGE:** Courses may require additional fees for students to take tests and exams online, and those tests/exams might be monitored by third-party online exam-proctoring services. 1. All costs for exams are the responsibility of the student and typically involve third party charges ranging from $1 - $50.00 per exam. Students may be required to schedule exams at least 24 hours in advance or incur late scheduling charges. 2. Students may be responsible for providing webcams to be used in test proctoring. 3. Students may be required to show to an online proctor via webcam 1) photo ID and 2) the interior of the room where the student is taking the test/exam.
H. MAJOR COURSE REQUIREMENTS AND GRADING
Final course standing will be based upon several Homework & Quizzes, and Exams

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>% of FINAL GRADE</th>
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</thead>
<tbody>
<tr>
<td>Semester 3 Exams (lowest test grade will be dropped)</td>
<td>45</td>
</tr>
<tr>
<td>Quizzes</td>
<td>15</td>
</tr>
<tr>
<td>Homework</td>
<td>20</td>
</tr>
<tr>
<td>Final Exam</td>
<td>20</td>
</tr>
</tbody>
</table>

Grades will be assigned according to the following scale.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage Range</th>
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<tbody>
<tr>
<td>A</td>
<td>90%-100%</td>
</tr>
<tr>
<td>B</td>
<td>80%-89.99%</td>
</tr>
<tr>
<td>C</td>
<td>70%-79.99%</td>
</tr>
<tr>
<td>D</td>
<td>60%-69.99%</td>
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<tr>
<td>F</td>
<td>below 60%</td>
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I. COURSE CONTENT/SCHEDULE

<table>
<thead>
<tr>
<th>DATE (BY WEEK)</th>
<th>TOPIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Syllabus discussion Section 1.1, Section 1.3, Section 2.1, section 2.3, Section 3.1, Section 3.2, section 3.3, review 1</td>
</tr>
<tr>
<td>2</td>
<td>Exam 1, Section 3.4, section 3.5, Section 4.1, Section 4.2, section 4.3, section 4.4</td>
</tr>
<tr>
<td>3</td>
<td>Section 4.5, Section 4.6, Review 2, exam 2, section 5.1, section 5.2</td>
</tr>
<tr>
<td>4</td>
<td>section 5.3, section 5.4, section 5.5, Section 6.1, section 6.2, section 6.3, review 3</td>
</tr>
<tr>
<td>5</td>
<td>Exam 3, section 6.4, section 7.1, section 7.2, section 7.3</td>
</tr>
<tr>
<td>July 3</td>
<td>Final Exam</td>
</tr>
</tbody>
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J. COURSE POLICIES

Attendance/Tardiness
The instructor is NOT responsible for informing absent students what was covered in previous classes, homework or any other announcements.

Late Work and Make-up Exams
NO MAKEUPS WILL BE GIVEN FOR HOMEWORK OR QUIZZES.
No Make-up for final test

Missed Exam
No make-ups will be given without written evidence of an official University excused absence. For an absence to be considered excused, the student must notify his or her instructor in writing (acknowledged e-mail message is acceptable) prior to the date of absence if such notification is feasible. In cases where advance notification is not feasible (e.g. accident or emergency) the student must provide notification by the end of the second working day after the absence. In the case of illness or injury, students are required to obtain a confirmation note from a health care professional affirming date and time of a medical office visit regarding the illness or injury.

Semester Exams and Final Exam
• Three semester tests will be administered during class times. The dates will be announced in class. These dates may be changed with due notice announced during class time. Bring your own calculators and it cannot be shared.
• The final exam will be a comprehensive examination over all materials covered during the semester. Absolutely no early final examination, so make travel arrangements accordingly. Without taking final exam, it will be an “F” for the semester grade regardless.

Participation
Students are encouraged to participate in class discussions and problem solving skills.

K. COLLEGE AND UNIVERSITY POLICIES
• Academic Integrity (University)
University students are expected to conduct themselves in accordance with the highest standards of academic honesty. Academic misconduct for which a student is subject to penalty includes all forms of cheating, such as illicit possession of examinations or examination materials, falsification, forgery, complicity or plagiarism. (Plagiarism is the presentation of the work of another as one’s own work.) In this class, academic misconduct or complicity in an act of academic misconduct on an assignment or test will result in a failing grade.

• Classroom/Professional Behavior
Texas A&M University-Corpus Christi, as an academic community, requires that each individual respect the needs of others to study and learn in a peaceful atmosphere. Under Article III of the Student Code of Conduct, classroom behavior that interferes with either (a) the instructor’s ability to conduct the class or (b) the ability of other students to profit from the instructional program may be considered a breach of the peace and is subject to disciplinary sanction outlined in article VII of the Student Code of Conduct. Students engaging in unacceptable behavior may be instructed to leave the classroom. This prohibition applies to all instructional forums, including classrooms, electronic classrooms, labs, discussion groups, field trips, etc.

• Statement of Civility
Texas A&M University-Corpus Christi has a diverse student population that represents the population of the state. Our goal is to provide you with a high quality educational experience that is free from repression. You are responsible for following the rules of the University, city, state and federal government. We expect that you will behave in a manner that is dignified, respectful and courteous to all people, regardless
of sex, ethnic/racial origin, religious background, sexual orientation or disability. Behaviors that infringe on the rights of another individual will not be tolerated.

- **Deadline for Dropping a Course with a Grade of W (University)**

I hope that you never find it necessary to drop this or any other class. However, events can sometimes occur that make dropping a course necessary or wise. *Please consult with your academic advisor, the Financial Aid Office, and me, before you decide to drop this course.* Should dropping the course be the best course of action, you must initiate the process to drop the course by going to the Student Services Center and filling out a course drop form. Just stopping attendance and participation WILL NOT automatically result in your being dropped from the class. Please consult the Academic Calendar ([http://www.tamucc.edu/academics/calendar/](http://www.tamucc.edu/academics/calendar/)) for the last day to drop a course.

- **Grade Appeals (College of Science and Engineering)**

As stated in University Procedure 13.02.99.C0.03, Student Grade Appeal Procedures, a student who believes that he or she has not been held to appropriate academic standards as outlined in the course syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is required to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Procedure 13.02.99.C0.03, Student Grade Appeal Procedures. These documents are accessible through the University Rules website at [http://academicaffairs.tamucc.edu/rules_procedures/assets/13.02.99.c0.03_student_grade_appeals.pdf](http://academicaffairs.tamucc.edu/rules_procedures/assets/13.02.99.c0.03_student_grade_appeals.pdf). For assistance and/or guidance in the grade appeal process, students may contact the chair or director of the appropriate department or school, the Office of the College of Science and Engineering Dean, or the Office of the Provost.

- **Disability Services**

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please call (361) 825-5816 or visit Disability Services in Corpus Christi Hall 116.

If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services office for assistance at (361) 825-5816.

[http://disabilityservices.tamucc.edu/](http://disabilityservices.tamucc.edu/)

- **Civil Rights Complaints**

Texas A&M University-Corpus Christi is committed to fostering a culture of caring and respect that is free from discrimination, relationship violence and sexual misconduct, and ensuring that all affected students have access to services. For information on reporting Civil Rights complaints, options and support resources (including pregnancy support accommodations) or university policies and procedures, please contact the University Title IX Coordinator, Sam Ramirez (Samuel.ramirez@tamucc.edu) or Deputy Title IX Coordinator, Rosie Ruiz (Rosie.Ruiz@tamucc.edu) x5826, or visit website at Title IX/Sexual Assault/Pregnancy.
• Statement of Academic Continuity
  In the event of an unforeseen adverse event, such as a major hurricane and classes could not be held on the campus of Texas A&M University–Corpus Christi; this course would continue through the use of Blackboard and/or email. In addition, the syllabus and class activities may be modified to allow continuation of the course. Ideally, University facilities (i.e., emails, web sites, and Blackboard) will be operational within two days of the closing of the physical campus. However, students need to make certain that the course instructor has a primary and a secondary means of contacting each student.

• Limits to Confidentiality.
  Essays, journals, and other materials submitted for this class are generally considered confidential pursuant to the University’s student record policies. However, students should be aware that University employees, including instructors, are not able to maintain confidentiality when it conflicts with their responsibility to report alleged or suspected civil rights discrimination that is observed by or made known to an employee in the course and scope of their employment. As the instructor, I must report allegations of civil rights discrimination, including sexual assault, relationship violence, stalking, or sexual harassment to the Title IX Coordinator if you share it with me.

  These reports will trigger contact with you from the Civil Rights/Title IX Compliance office who will inform you of your options and resources regarding the incident that you have shared. If you would like to talk about these incidents in a confidential setting, you are encouraged to make an appointment with counselors in the University Counseling Center.

I. OTHER INFORMATION

• Academic Advising
  The College of Science & Engineering requires that students meet with an Academic Advisor as soon as they are ready to declare a major. The Academic Advisor will set up a degree plan, which must be signed by the student, a faculty mentor, and the department chair. Meetings are by appointment only; advisors do not take walk-ins. Please call or stop by the Advising Center to check availability and schedule an appointment. The College’s Academic Advising Center is located in Center for Instruction 350 or can be reached at (361) 825-3928.

• GENERAL DISCLAIMER
  I reserve the right to modify the information, schedule, assignments, deadlines, and course policies in this syllabus if and when necessary. I will announce such changes in a timely manner during regularly scheduled lecture periods.