Course Information
Meeting: Lecture: pre-recorded online or PPT
Professor: Dr. Mufid Abudiab
Office: CI 306
Phone: 361-825-6019; also my Skype address is mufid. abudiab
E-mail: mufid.abudiab@tamucc.edu
Class: URL: http://bb9.tamucc.edu
Office Hour: M-R 12:00-2PM (use Skype or WebEx for office hour consultations)

Course Description
This is a Hybrid-online math course with applications in business. It involves group project, virtual class discussions, and written reports, using Excel to solve mathematical problems, Power Point and the equation editor in Word for documentation. In this class, we develop the fundamentals of calculus and optimization using technology. This includes Demand, Revenue, Cost, and Profit; Differentiation; Integration; Graphing Functions; Trend Lines; Using Solver; Distributions; Variance; The Sample Mean; Normal Distributions; and Simulating Normal Random Variables.

Catalog Course description: MATH 1325 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. Counts as the mathematics component of the University Core Curriculum.
Prerequisite: MATH 1324

Learning Objectives
After completion the course, students should be able to
1. Graph functions using excel.
2. Use Trend Lines to fit data.
3. Apply Demand, Revenue, Cost, and Profit concepts to real life situations.
4. Understand Differentiation and apply it to real life problems.
5. Use Solver via Excel to solve optimization problems.
6. Understand Integration and apply it to real life problems.
7. Understand and use Distributions of Finite and Continuous Random Variables and Random Sampling.
8. Understand and use the concept of Variance.
9. Compute and graph the Sample Mean for different random samples.
10. Understand and use Normal Distributions (Standard, General) for a variety of random variables.
11. Simulate Normal random Variables
12. The learner will strengthen his or her general academic skills (critical thinking, writing, verbal explanation, working collaboratively, assuming responsibility, and use of technology).
13. The learner will develop a broad base of business mathematics knowledge: Concepts, Basic skills, mathematical senses (quantitative, geometric, symbolic), and thinking process (problem solving, predicting, and generalizing).
Major Course Requirements
Successful completion of College Algebra (Math 1314) and Business Mathematics (Math 1324) or suitable placements are pre-requisites for this course. The following assessments will be given during the semester: two examinations (20% each), final exam (30%), team project (10%), differentiation and integration mastery assessments (10%) and several quizzes (10%). All instructional information will be posted on class blackboard page.

Required or Recommended Readings
The E-text “Mathematics for Business Decisions Part 2: Calculus and Optimization”, Release 1.0, 2003, by Thompson and Lamoureux, Mathematical Association of America can be accessed through the university main server. The ID and password will provided to students on the first day of class. Each team needs to have a flash drive for project and other class activities. Students need to consult the class web BB page bb9.tamucc.edu regularly.

Course Policies
• Course grade will be based upon the percentage of the total possible points that a student earns and the following grading scale: A: >90% of total points, B: >80% of total points, C: >70% of total points, D: >60% of total points.
• The class blackboard page will include a list of topics that will be studied during each class meeting and homework questions for practice. The e-text contains exercises which should be worked out while studying the material.
• Attendance is mandatory. Attendance will be checked each class period.
• Each student is expected to take notes during lectures, and keep a record of his/her assignments, tests and over all grades.
• Last day of class and Final Exam will be on July 3rd, 2014.

Academic Integrity/Plagiarism
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 failing the course.

Dropping a Class
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 me before you decide to drop to be sure it is the best thing to do. 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.

Preferred methods of scholarly citations
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.

**Grade Appeals**
A student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is on the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details on the process, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, consult Texas A&M University-Corpus Christi University Procedure 13.02.99.C2.01 *Student Grade Appeal Procedures* (http://www.tamucc.edu/provost/university_rules/index.html), and the College of Science and Engineering Grade Appeals webpage (http://sci.tamucc.edu/students/GradeAppeal.html). For assistance and/or guidance in the grade appeal process, students may contact the chair or director of the appropriate department or school or the College of Science and Engineering Dean’s Office.

**Disabilities Accommodations**
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 or visit Disability Services at (361) 825-5816 in Driftwood 101. 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.

**Tentative Course Outline**
To be posted on the class blackboard page under weekly schedule tab by the first day of class.

**Changes**
The instructor may amend the syllabus at any time prior to the final exam by announcing the changes in class.

**Math 3125 and Core Curriculum Program**
As an integral part of TAMU-CC’s Core Curriculum Program, Math 1325 seeks to enhance students’ intellectual skills in the areas of written and oral communications, mathematical competency and critical thinking. Throughout the course, students in Math1325 will have ample opportunities to enhance their proficiency in the six intellectual skills specified in the TAMU-CC Undergraduate Catalog.

In addition to the reading assignments from the textbook, the course project compels students to do significant reading and searching of outside sources, including the *Yahoo Finance*, other financial data resources, and published documents by government agencies. Student’s exposure to business terminology in these materials certainly provides students with an opportunity to further develop their reading and writing skills.
Throughout the semester students do have opportunities to participate in virtual class discussions, communicate with the instructor via Skype or WebEx. Homework assignments offer another opportunity for students to exchange ideas verbally and to enhance their listening and speaking skills.

The study of business mathematics is not possible without critical thinking and quantitative analysis. For example, the fundamental mathematical concepts “Differentiation and Integration” and its applications in different tracks of business provide Math 1325 students with a valuable problem solving and critical thinking tool.

An understanding and mastering of the concept of function and graphing set up the stage for learning other business calculus (Math 1325) topics. Basic knowledge of business calculus is beneficial to students in other quantitative business courses.