I. Course Information

Meeting Time & Place: M-F 11:00AM – 2:45 PM CI 109
Instructor: Dr. Mufid Abudiab
Office Phone: 361-825-6019
Office Address: CI 306
E-MAIL Address: mufid.abudiab@tamucc.edu
Office Hours: M-R 2:50 – 4:00 PM or by appointment

II. Course Description

This is a math course with applications in Business, Economics, Life and Social Sciences. Topics include the application of common algebraic functions, including polynomial, exponential, logarithmic, and rational functions, to problems in business, economics, and the social sciences are addressed. The applications include mathematics of finance (simple and compound interest and annuities); systems of linear equations; matrices; linear programming; and probability, including expected value.

III. Prerequisite

Meet TSI college-readiness standard for Mathematics; or equivalent.

IV. Text and Other Supplies Required

MyLabsPlus access code is required for homework and quizzes. You will need to purchase an access code, either through the campus bookstore or directly from the publisher. Historically, the publisher has been less expensive, I recommend checking both sources before buying. I will discuss how you access and use MyLabsPlus during the first class meeting. An electronic version of the textbook, College Mathematics for Business, Economics, Life Sciences, and Social Sciences, 13th Edition by Barnett, is included inside the MyLabsPlus system.

You will be required to access the TAMU-CC Blackboard system at bb9.tamucc.edu. If you do not have access to Blackboard, please contact the Help Desk at it.tamucc.edu to obtain access as soon as possible.
A graphing 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).

Optional


V. Learning Objectives

After completion the course, students should be able to:

1. Use linear functions to model business problems.
2. Use quadratic equations and inequalities to model business problems.
3. Use polynomial equations and inequalities to model business problems.
4. Use exponential expressions and functions to model business problems, and to solve exponential equations.
5. Use logarithmic expressions and functions to model business situations, and to solve logarithmic equations.
6. Graph and solve linear systems and linear programming problems.
7. Calculate financial math problems including the computation of interest, annuities, and amortization of loans.
8. Solve problems involving sets, logic, and basic counting principles including permutations and combinations.
9. Use fundamental probability techniques and apply it to real life situations, which includes basic probability, random variables, probability distribution and expected value.
10. 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).

VI. Instructional Methods and Activities

Lectures, demonstrations, and use of MyLabsPlus which includes electronic copy of the book, videos, examples, and study hints.

VII. Evaluation and Grade Assignment

Final course grade will be based upon homework, quizzes, two semester tests, and final test according to the following weights and scale

2 Exams 40% of grade  Homework 15% of grade
<table>
<thead>
<tr>
<th>Quizzes</th>
<th>15% of grade</th>
<th>Final Exam</th>
<th>30% of grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>90%- 100% = A</td>
<td>80%- 89.9% = B</td>
<td>70%- 79.9% = C</td>
<td>60%- 69.9% = D</td>
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<tr>
<td>Below 60% =</td>
<td>F</td>
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VIII. Tentative Schedule
To be posted on the class blackboard page by the first day of class.

IX. Class Policies

Class Preparation

• Thursday May 14\textsuperscript{th}, 2015 is the first day of Maymester and last day to register classes.
• Monday May 25\textsuperscript{th}, 2015 is Memorial Day Holiday.
• Students are expected to read the PowerPoints materials on Blackboard, view videos and other multimedia available in MyLabsPlus, and work assignments before the due dates.
• Homework is assigned online regularly through MyLabsPlus that can be accessed at tamucc.mylabsplus.com (you need to buy an access code) and due as specified. Late homework will not be accepted. If you have problems accessing the system please let me know as soon as possible.
• Online quizzes will be assigned regularly through MyLabsPlus that can be accessed at tamucc.mylabsplus.com (you need to buy an access code) and due as specified.
• Two semester tests will be administered during class times. The dates will be announced in class and posted on Blackboard. These dates may be changed with due notice announced during class time. Bring your own calculators and it cannot be shared. Cell phones cannot be used as calculators. If an extra credit work is assigned, or extra points are given, the total score should not exceed 100%. No points will be “saved” toward the next examination. There will be no makeup for a missed semester test unless for special extreme circumstances.
• If one of the semester tests is missed, its score will be replaced by the score on the final exam. The opposite is not true. A missed final exam will result of a score of 0 points. You can’t miss more than one semester test. A second missed semester test will result of a score of 0 points for that test.
• The final exam will be a comprehensive examination over all material covered during the semester. Absolutely no early final examination, so make travel arrangements accordingly.
• Attendance will be taken each class. Talking during class time and tardiness are often disruptive to the whole class and are not appreciated. If you are delayed and arrive late please do so quietly. Excessive tardiness, disruptive talking, disruptive behavior or performing activities not related to the class will be counted as absences and may cancel bonus points at the end of the semester that usually
is helpful to determine borderline grades. The instructor is NOT responsible for informing absent students what was covered in previous classes, homework or any other announcements.

- Please check carefully the date and time of the tests as I cannot change them for any other reasons not considered truly exceptional, that is; beyond the control of the student.
- **Thursday May 28th, 2015** is the last day of Maymester.
- **Friday May 29th, 2015** is the final exam day.

### X. Legal Statements

#### 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 a grade of 0% on that assignment or test.

A grade of incomplete will only be given in exceptional circumstances, such as a death in the family or personal injury that might prevent someone from taking the final exam. (Please notice that an incomplete grade can only be given to students that are passing the course but have not completed the required work for reasons beyond the students’ control). In this case, it is the responsibility of the student to notify me as soon as possible, preferably by email, and to fill the required "Incomplete Form" available from the University Registrar. If this is not done, a score of 0% will be assigned for any incomplete exams and a final grade will be computed using the criteria described above.

#### 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.

#### 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.

**Grade Appeals**

As stated in University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures, 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 upon 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, 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.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules website at 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, the Office of the College of Science and Engineering Dean, or the Office of the Provost.

**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 Corpus Christi Hall, rm. 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.

**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.
XI. COURSE CONTENT/SCHEDULE

Suggested Topics to be covered

Chapter 1: Linear Equations and Graphs
  1.1 Linear Equations and Inequalities (Applications)
  1.2 Graphs and Lines (Applications)
  1.3 Linear Regression

Chapter 2: Functions and Graphs
  2.1 Functions (Applications)
  2.3 Quadratic Functions (Applications)
  2.4 Polynomial and Rational Functions (Applications)
  2.5 Exponential Functions (Applications)
  2.6 Logarithmic Functions (Applications)

Chapter 3: Mathematics of Finance
  3.1 Simple Interest
  3.2 Compound and Continuous Compound Interest
  3.3 Future Value of an Annuity; Sinking Fund
  3.4 Present Value of an Annuity; Amortization

Chapter 5: Linear Programming
  5.3 Linear Programming in Two Dimensions: A Geometric Approach

Chapter 7: Logic, Sets, and Counting
  7.2 Sets
  7.3 Basic Counting Principles
  7.4 Permutations and Combinations

Chapter 8: Probability
  8.1 Sample Spaces, Events, and Probability
  8.2 Union, Intersection, and Complement of Events; Odds
  8.3 Conditional Probability, Intersection, and Independence
  8.4 Baye’s Formula
  8.5 Random Variable, Probability Distribution, and Expected Value
### Important Dates

<table>
<thead>
<tr>
<th>DATE (BY DAY OR WEEK)</th>
<th>TOPIC</th>
<th>CHAPTER(S)</th>
<th>ASSIGNMENTS</th>
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<tbody>
<tr>
<td>Thursday</td>
<td>Exam 1</td>
<td>Chapter 1</td>
<td>See MyLabsPlus</td>
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<tr>
<td>May 21&lt;sup&gt;st&lt;/sup&gt;</td>
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<td>Chapter 2</td>
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<tr>
<td></td>
<td></td>
<td>Chapter 3</td>
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<tr>
<td>Monday</td>
<td>No Class: Memorial Day</td>
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<tr>
<td>May 25&lt;sup&gt;th&lt;/sup&gt;</td>
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<tr>
<td>Thursday</td>
<td>Exam 2</td>
<td>Chapter 5</td>
<td>See MyLabsPlus</td>
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<tr>
<td>May 28&lt;sup&gt;th&lt;/sup&gt;</td>
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<td>Chapter 7</td>
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<td>Chapter 8</td>
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<tr>
<td>Friday</td>
<td>Final Exam</td>
<td>Comprehensive exam (covers Exam 1 &amp; Exam 2 materials)</td>
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<tr>
<td>May 29&lt;sup&gt;th&lt;/sup&gt;</td>
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### Syllabus Disclaimer

This syllabus has been created as a guide to the class and is as accurate as possible. However, all information is subject to change. Any changes will be posted on the Blackboard Learning System’s Announcements.