MATH-1324
Mathematics for Business & Social Sciences
Department of Mathematics and Statistics
SUMMER II 2015

A. COURSE INFORMATION
Course number/section: MATH-1324-W01
Class meeting time: ONLINE
Class location: ONLINE
Course Website: www.bb9.tamucc.edu

B. INSTRUCTOR INFORMATION
Instructor: NENE COULIBALY
Office location: EN-314D
Office hours: By Appointment ONLINE
Telephone: 361-825-2219
E-mail: Nene.Coulibaly@tamucc.edu

C. COURSE DESCRIPTION
This fully online course is taught via the Web at a distance and is available at http://Bb9.tamucc.edu. 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, to problems in business, economics, and the social sciences are addressed. The applications include mathematics of finance, including simple and compound interest and annuities; systems of linear equations; matrices; linear programming; and probability, including expected value.

D. PREREQUISITES AND COREQUISITES
Meet TSI college-readiness standard for Mathematics; or equivalent.

E. REQUIRED TEXTBOOK(S), READINGS AND SUPPLIES
MyLabsPlus access kit 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.
Optional Textbook(s) or Other References


Supplies

A calculator is required for every homework, quiz and examination. A TI-83/84 calculator or similar is required.

F. STUDENT LEARNING OUTCOMES AND ASSESSMENT

By the end of this course, students should be able to:

1. Use linear, quadratic, polynomial, exponential and logarithmic functions to model problems, primarily in business.
2. Interpret, graph and solve linear programming problems.
3. Calculate financial math problems including the computation of interest, annuities, and amortization of loans.
4. Solve problems involving sets, logic, and basic counting principles including permutations and combinations.
5. Solve fundamental probability techniques and application of those techniques, which includes basic probability, random variables, probability distribution and expected value,
6. 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).

G. INSTRUCTIONAL METHODS AND ACTIVITIES

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

H. MAJOR COURSE REQUIREMENTS AND GRADING

Final course standing will be based upon several homework, quizzes, two semester tests, and a final test.

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>% of FINAL GRADE</th>
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<tbody>
<tr>
<td>Semester Exams</td>
<td>40</td>
</tr>
<tr>
<td>Quizzes</td>
<td>15</td>
</tr>
<tr>
<td>Homework</td>
<td>20</td>
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<tr>
<td>Final Exam</td>
<td>25</td>
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</tbody>
</table>
Final grades will be assigned as follows

<table>
<thead>
<tr>
<th>Weighted average in %</th>
<th>LETTER GRADE</th>
</tr>
</thead>
<tbody>
<tr>
<td>90 - 100</td>
<td>A</td>
</tr>
<tr>
<td>80 – 89.99</td>
<td>B</td>
</tr>
<tr>
<td>70 -79.99</td>
<td>C</td>
</tr>
<tr>
<td>60 – 69.99</td>
<td>D</td>
</tr>
<tr>
<td>Below 60</td>
<td>F</td>
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</tbody>
</table>

I. **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>
</tr>
</thead>
<tbody>
<tr>
<td>Tuesday, July 21st</td>
<td>Exam 1</td>
<td>Chapter 1</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Chapter 2</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Chapter 3</td>
<td>See MyLabsPlus</td>
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<tr>
<td>Friday, July 24th</td>
<td>Deadline for Dropping a Course with a Grade of W</td>
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<tr>
<td>Tuesday, August 4th</td>
<td>Exam 2</td>
<td>Chapter 5</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Chapter 7</td>
<td>See MyLabsPlus</td>
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<tr>
<td></td>
<td></td>
<td>Chapter 8</td>
<td></td>
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<tr>
<td>Thursday, August 6th</td>
<td>Final Exam</td>
<td>Comprehensive exam (covers Exam 1 &amp; Exam 2 materials)</td>
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Note: Changes in this course schedule may be necessary and will be announced to the class by the Instructor. The assignments and exams shown are directly related to the Student Learning Outcomes described in Section F.

**J. COURSE POLICIES**

- **Class Preparation:**
  Students are expected to read the PowerPoints materials, view videos and other multimedia available in MyLabsPlus, and work assignments before the due dates. Online courses require the student to be self-disciplined. Successful students should plan to spend at least 6 hours a week studying for this class (not including time working on the assignments).

- **Attendance Policy:**
  - Homework is assigned regularly and due as specified. No late homework will be accepted unless there is a valid excuse. Late homework will receive a 20% deduction. You will have unlimited attempt for each homework.
  - There will be a quiz immediately after each chapter is finished. In order to do the chapter quiz, you have to finish all the homework first for that particular chapter. You will have 3 attempts for each quiz and the system will pick the higher grade. I encourage you to do all 3 attempts.
Two semester exams and the final exam will be administered and proctored through Blackboard. Exam 1 will be taken on **Tuesday, July 21, 2015. Exam 2 will be taken on Tuesday, August 4, 2015.** These exams are 2 hours exams, make sure you log into blackboard to have enough time to complete the test. The **final exam is on Thursday, August 6th.** It is a comprehensive examination over all material covered during the semester.

Notes: The times for the exams will be announce through blackboard, and the times are Texas time (Central Time Zone).

There is no make up for a missed semester test. 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 on a score of 0 points. You can’t miss more than one semester test. A second missed semester test will result on a score of 0 points for that test.

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.

The instructor reserves the right to make changes to the above with due notice to the students. These changes will be announced in class and each student is responsible for keeping herself/himself informed of such changes.

### K. COLLEGE AND UNIVERSITY POLICIES

- **Academic Integrity (University)**
  
  It is expected that university students will demonstrate a high level of maturity, self-direction, and ability to manage their own affairs. Students are viewed as individuals who possess the qualities of worth, dignity, and the capacity for self-direction in personal behavior.

  See Full University Policy at:

  [http://catalog.tamucc.edu/content.php?catoid=10&navoid=313#Academic_Integrity](http://catalog.tamucc.edu/content.php?catoid=10&navoid=313#Academic_Integrity)

- **Classroom/Professional Behavior**

  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)**


The grade of W will be assigned to any student officially dropping a course by Friday, July 24th, 2015. No student is eligible to receive a W without completing the official drop process by this deadline. Visit the Office of the University Registrar for the Course Drop Form that must be submitted. After July 24th, 2015 a student will not be allowed to drop a course.

- **Grade Appeals (College of Science and Engineering)**
  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](http://www.tamucc.edu/provost/university_rules/index.html), and the College of Science and Engineering Grade Appeals webpage at [http://sci.tamucc.edu/](http://sci.tamucc.edu/). 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**
  Disability Services (DS) is the hub for coordinating services and accommodations to ensure accessibility and utilization of all programs for all Texas A&M University-Corpus Christi students with disabilities. Our services are designed to meet the unique educational needs of enrolled students with documented permanent or temporary disabilities. DS provides intake and consultation services to students seeking to register with our office. DS reviews an individual’s documentation of disability and assesses eligibility for services and the determination of reasonable accommodations. For more information visit the Disability Services Office at 116 Corpus Christi Hall or go to [http://disabilityservices.tamucc.edu/](http://disabilityservices.tamucc.edu/)

I. **OTHER INFORMATION**

Help: CASA has many quality tutors to help you while you need someone beside my office hours. Welcome to visit those tutors at the second floor of library. Please find out their schedule first before you make a plan to go for this semester. I will be happy to work with you anytime during my office hours and also email me for your special needs. Good luck to everyone in the class.
M. Related Issues

Online courses require time management and planning on your part. You cannot afford to get behind since many topics and assignments are based on the skills and products of previous assignments; there is no meaningful way to "cram." Contact me if you are having any problems with assignments.

There is a reliance on technologies in this course that impacts the need to have assignments done on time. Having sufficient time to complete an assignment will be the responsibility of the student. It is also the student's responsibility to find solutions to technical problems with sufficient time to complete the required tasks. Do not wait until a due date is near to discover/report lack of access to software, inability to connect to a network, etc. While the instructor will help wherever possible, it is the students' responsibility to maintain his or her network. However, technical problems can originate on the TAMU-CC campus, in which case you will not be responsible to complete work that you cannot complete due to TAMU-CC network or software problems. You are responsible for contacting me as soon as you detect a problem so that we can arrange a way

N. 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.

Technical Support and Requirements

Blackboard Learning System Help: [http://iol.tamucc.edu](http://iol.tamucc.edu)

“Help” At the bottom of the Blackboard Course Management Control Panel in the course menu on the left hand column of the course interface. Phone: Help Desk (361) 825-2825


Phone: (888) 883 – 1299

Island Online Student Resources Webpage:

[https://distance-education.tamucc.edu/student_resources.html](https://distance-education.tamucc.edu/student_resources.html)

Getting Technical Help

If you are having difficulties accessing course materials from your home computer, first let your instructor know, then contact the IOL Helpdesk at (361)825-2692 or submit a request via email to

iol.support@tamucc.edu
Technology Requirements
To prepare your computer for using Blackboard 9.1, go to https://iol.tamucc.edu/techreq.php for computer requirements.

- To view .pdf files you will need the Adobe Reader. Download it at: http://get.adobe.com/reader/
- To view flash (.flv) files from sites such as You Tube, download the Flash player at http://get.adobe.com/flashplayer/

Navigating Blackboard 9.1
Once you are in the course, read the “Announcements” on the home page. Check this each time you enter your course. You will see a Course Menu on the left of the page. The menu is a list of links that connect to materials and tools associated with the course. Blackboard has several features and tools for communicating content delivery that you should use almost daily. Links to information about how to use these tools include: Bb Help, which contains a complete guide to learning how to use the many tools and features in Blackboard, and Bb Video Tutorials, which links to a page with videos to show you how to do tasks such as submitting an assignment.

Online Course Guidelines
Students will practice respect and responsibility as a part of this learning community. Here are some things you can do to exhibit an attitude of respect and responsibility:

- Reach out through email Blackboard Messages, and Discussions, to support each other. If you have good info/tips on what is working for you/resource ideas, please share with your classmate so we can help each other out.
- Respect other classmates by watching what you say.
- Add your opinions to/participate in the discussions.
- Check the assignments every week. Don’t wait until the last minute.
- Be helpful to other students
- Don’t get behind. If you get behind in an online course it is harder to get back on track than it is in a traditional course.
- Stay focused and stay connected.
- Keep up with your assignments and your grades. It is not the teacher's responsibility to tell you what you have or haven't turned in. Your grades will be available in Blackboard so all you have to do is regularly check to make sure you have grades posted for all work.
In general terms, students are expected to "demonstrate a high level of maturity, self-direction and ability to manage their own affairs" and to "conduct themselves in accordance with the highest standards of academic honesty." Instances of plagiarism will be handled in accordance with Texas A&M University-Corpus Christi General Academic Policies and Regulations as listed in the current catalog.

Delivery of instructor feedback –
During the week (exclude weekends), Instructor response to online requests usually occurs within a 24-hour period, but you can expect a response within 2 days.

Student login expectations –
Students are required to login often – once every day at a minimum. It is recommended that students check daily for announcements and updates.

Faculty availability to support students –
I maintain a consistent web presence and am available to meet online in the Blackboard asynchronous or synchronous environment or via phone.