Business Mathematics – Math 1324.002
Department of Mathematics & Statistics
Spring 2020

A. COURSE INFORMATION

Course number/section: MATH1324-002
Class meeting time: T,R 11:00-12:15
Class location: CI-138

B. INSTRUCTOR INFORMATION

Instructor: Dr. Abdullah Abu-Rqayiq
Office location: CI-356
Office hours: T, R 11:00-12:30 and W 11:00-1:00
E-mail: Abdullah.aburqayiq@tamucc.edu
Appointments: Additional times available by appointment - send email

C. COURSE DESCRIPTION

Students will learn how the properties and language of mathematics can be used in business and real-world problem solving and understand the techniques and applications of finance problems, basic matrix operation, basic counting principles, and probability analysis in modeling real-world scenarios. 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 FOR THE COURSE

Prerequisite: MATH 1314 (College Algebra) or placement beyond MATH 1314.

E. REQUIRED TEXTBOOK(S), READINGS AND SUPPLIES

Required Textbook:
Tan/ Waner, Custom WebAssign Finite Mathematics for the Managerial, Life, and Social Sciences + Applied Calculus
ISBN 9780357465516

WebAssign access code- It is available as a bundle with the textbook or separately as a standalone access code at the bookstore.

Supplies: A calculator or graphing calculator is required for this class and it is the student’s responsibility to obtain it. The TI 83/84 Plus Graphing Calculator is recommended. Other calculators may not be supported by the instructor. I will allow other graphing calculators provided they are not capable of symbolic manipulation, such as the TI-89, TI-92, TI-nSpire CAS,
Voyage 200, and HP-48 series. I will not allow cell phones, laptops, tablets, or other smart devices to be used as a calculator during quizzes or exams. All calculators or handheld devices to be used in the course must first be approved by the instructor. Furthermore, the instructor reserves the right to erase the memory of any calculator or handheld device to be used in an exam.

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.

Upon successful completion of this course, students should be able to:

1. Apply elementary functions, including linear, quadratic, polynomial, rational, logarithmic, and exponential functions to solving real-world problems.
2. Solve mathematics of finance problems, including the computation of interest, annuities, and amortization of loans.
3. Apply basic matrix operations, including linear programming methods, to solve application problems.
4. Demonstrate fundamental probability techniques and application of those techniques, including expected value to solve problems.
5. Apply matrix skills and probability analyses to model applications to solve real-world problems.

G. INSTRUCTIONAL METHODS AND ACTIVITIES
The instructional method is a combination of lectures and student activities. Students are expected to participate through in-class activities, preparation for class meetings, homework, and quizzes. At the end of the semester, students will show competency by passing all assignments, quizzes, tests and the final exam with a score of 60% or better. Please see note regarding the final exam below the Course.

H. MAJOR COURSE REQUIREMENTS AND GRADING
Student learning outcomes (described in Section F) will be measured via progress on online assignments, quizzes, tests, and final exam. Quizzes will be administered in class. The final exam is comprehensive. All students will take a common final exam.

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Three Major Exams</td>
<td>45%</td>
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<tr>
<td>Quizzes</td>
<td>15%</td>
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<tr>
<td>Online Assignments</td>
<td>15%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>25%</td>
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</tbody>
</table>
Online Assignments (15%) – Online assignments will be scheduled weekly. These assignments will be graded automatically. Written homeworks will be assigned after finishing each section or so, but they will not be collected or graded. However, those exercises are very important especially for preparing for exams and quizzes.

Quizzes (15%) – You will have a quiz bi-weekly with any exceptions announced by the instructor. Pop quizzes may also be given should the instructor deem them necessary. Regardless of the reason, any missed quiz will receive a grade of zero (0) and there will be no make-ups on quizzes. (With prior approval you may be allowed to take a quiz or exam). The quizzes will cover material from the previous week’s lecture. At the end of the semester you will be allowed to drop your lowest quiz score and the average of the remaining scores (based on a percentage from 100) will count for 15% of your course grade.

Exams (45%) – You will have three midterm exams in this course and the date of each will be announced at least one week in advance. Any exam may contain material covered on previous exams. Calculators will be allowed unless otherwise instructed. Regardless of the reason, a grade of zero (0) will be recorded for any exam not taken and there will be no make-ups on exams.

Final Exam (25%) – The final exam will be comprehensive. Each student must take the final exam or receive a zero (0) as the final exam grade. If you miss the date of the final exam you will receive a ZERO. There are no make-ups for the final exam. PLAN AHEAD!!! The final exam will count for 25% of your course grade.

Course Grade - As outlined above, and rounded to the nearest integer will determine the course letter grade, based on the following scale:

<table>
<thead>
<tr>
<th>Grading Scale</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>F</th>
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<tbody>
<tr>
<td>90-100%</td>
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<td>80-89%</td>
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<td>70-79%</td>
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<td>60-69%</td>
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<td>0-59%</td>
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I. COURSE CONTENT/SCHEDULE (Tentative)

<table>
<thead>
<tr>
<th>Week</th>
<th>Sections</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Syllabus, 1.1</td>
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<tr>
<td>2</td>
<td>1.2, 1.3</td>
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<tr>
<td>3</td>
<td>1.4, 2.1</td>
</tr>
<tr>
<td>4</td>
<td>2.2, 2.3, 2.4</td>
</tr>
<tr>
<td>6</td>
<td>Review, Exam1</td>
</tr>
<tr>
<td>7</td>
<td>2.5, 2.6, 3.1</td>
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<tr>
<td>8</td>
<td>3.2, 3.3</td>
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<tr>
<td>9</td>
<td>5.1, 5.2, 5.3, 6.1, 6.2</td>
</tr>
<tr>
<td>10</td>
<td>Review, Exam 2</td>
</tr>
<tr>
<td>11</td>
<td>6.1, 6.2, 6.3</td>
</tr>
<tr>
<td>12</td>
<td>6.4, 7.1, 7.2</td>
</tr>
<tr>
<td>13</td>
<td>7.3, 7.4, 7.5</td>
</tr>
<tr>
<td>14</td>
<td>Review, Exam 3</td>
</tr>
<tr>
<td>15</td>
<td>7.5, 8.1, 8.2</td>
</tr>
<tr>
<td>16</td>
<td>Review</td>
</tr>
</tbody>
</table>

Note: Changes in this course schedule may be necessary and will be announced to the class by the Instructor.

J. Student Learning Outcomes described in Section

| January 21       | Classes begin              |
| January 28       | Last day to register or add classes |
| March 9-13       | Spring Break               |
| April 10         | Last day to drop a class   |
| May 5            | Last day to withdraw from the university |
| May 6            | Last day of classes        |
| May 8, 11-14     | Finals                     |

K. COURSE POLICIES

Attendance/Tardiness - Attendance will be taken each class. For most students attending class is a faster way of learning the material than trying to catch up on missed material solely from the book. Tardiness is often disruptive to the whole class and is not appreciated. If you are delayed and arrive late for class please do so quietly. Excessive tardiness, disruptive talking, disruptive behavior or performing activities not related to the class will counted as absences. The instructor is NOT responsible for informing absent students what was covered in previous classes, homework or any other announcements.

Cell Phone Use - Cell phones and such should be turned off before class. Students using their cell phones in class will be ask to leave the class and will be counted as absent for that day.

Laptop/Tablet Use - Students are allowed to use their laptops/tablets in class only if it is intended for learning purposes like logging into the class Blackboard page.
Other Class Policies
1. Students are expected to check Blackboard regularly, view videos and other multimedia available, and work assignments before the due dates.
2. Assignments will be posted to BlackBoard, if you are absent it is your responsibility to check, and assignments due as specified. If you have problems accessing the system you have to let me know as soon as possible.
3. 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. Calculators cannot be shared. Cell phones cannot be used as calculators.
4. The final exam will be comprehensive covering all material covered during the semester.

L. RESPONSIBILITIES
1. You are responsible for the information contained in the university ACADEMICCALENDAR – 2019. In particular, you are responsible for dropping the class if needed. Friday, December 4, 2018 is the last day to drop the class.
2. You are responsible for contacting me, if you miss a due date.
3. You are responsible for seeking help from the Center for Academic Student Achievement, a private tutor, coming to my office hours, or attending a student study group; if you have difficulty with a skill and/or concept.
4. You are expected to comply with the rules in the Student Handbook and Student Code of Conduct, as well as the processes in the latter, which are administered by the Office of Student Affairs. The Student Handbook and Student Code of Conduct are accessible at http://judicialaffairs.tamucc.edu/studentcofc.html

M. 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)**

Hopefully 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 your instructor before you decide to drop to be sure it is the best thing to do. **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. No student is eligible to receive a W without completing the official drop process by this deadline. Please consult the Academic 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.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 at 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.

- **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.
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.

Other Important Information

Final Exams (University)

As stated in University Procedure 13.99.99.C4.01, final examinations must be scheduled during the regularly scheduled examination time listed in the official class schedule. If papers or take-home examinations are assigned in lieu of a final examination, the due date must be at the regularly scheduled examination time listed in the official class schedule. If final presentations or final critiques assigned in lieu of final examinations require multiple days to complete, then the final day for the critiques/presentations must occur on the regularly scheduled exam day.

2.2 Students are not required to take more than two final examinations in any one day. Any student with three or more final examinations scheduled on the same day may request to take one of the examinations on another day during the final examination period. The process is described below.

A) The student should first try to resolve the matter with the appropriate instructor(s).
B) If the matter remains unresolved, the student should submit a request for an alternative final exam time in writing to the Office of Student Affairs. This request must be submitted by the drop date (the last day to drop a course for the semester with an automatic grade of W as stated in the semester class schedule).
C) The Office of Student Affairs will select which of the exams should be taken at an alternative time and formally contact the faculty member at least 15 working days before the final examination period. Preference for selection of which course would have an alternative final exam time must be based on the course with the smaller class size and, then, courses with final exam times in between other exams.
D) The faculty member will then arrange an alternative time for the student to take the final exam for that course that does not conflict with the student’s final exam schedule or require the student to take more than two final exams in one day. If students have difficulties in rescheduling the examination, they should consult with the Office of Student Affairs. Final exams given outside the regularly scheduled time may vary in content and format at the discretion of the faculty member.

M. 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 setup 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.