MATH 1315 College Algebra for Economics and Business Analysis

Fall 2014

Section 003: PKH 110, 2:00-3:20 PM, TuThu

Instructor(s): Daniel Wood
Office Number: 427 PKH
Office Telephone Number: 817-272-5681
Email Address: daniel.wood@mavs.uta.edu
Office Hours: 2:00-3:00 PM, MoWeFr, or by appointment

Electronic Communication: UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at http://www.uta.edu/oit/cs/email/mavmail.php.

Learning outcomes: This course covers material in a traditional algebra course with emphasis on business and financial applications. Upon completion of Math 1315, the students should have a solid knowledge of the material including (but not limited to) the topics: linear equations, systems of linear equations, systems of linear inequalities, linear programming, mathematics of finance, elements of matrix algebra, logic and probability.

Textbook: *Mathematical Applications for the Management, Life and Social Sciences, 10th Custom UTA Edition*, by Harshbarger and Reynolds.

Attendance: I allow students to attend class at their own discretion, but attendance is strongly recommended. A missed quiz or exam cannot be made up.

Grading scale: A: 90-100 B: 80-89 C: 70-79 D: 60-69 F: 0-59

Grade components:

1. Test 1 — 25%, Thursday, September 25, 2014; 2:00-3:20 pm (in class)
2. Test 2 — 25%, Thursday, October 23, 2014; 2:00-3:20 pm (in class)
3. Final examination — 30%, Saturday, December 6, 2014; 3:30-6:00 pm (departmental)
4. Homework and quizzes — 20%. Homework assignments will NOT be collected, thus NOT be graded. However, you are strongly encouraged to work on these problems, since similar ones may appear on your quizzes and exams. The grades of the quizzes will count 20% toward your final grade. The two (2) lowest quiz grades will be dropped. WebAssign is used for your practice. Students can register at http://www.webassign.net using UTA email, then get enrolled using my class key: **uta 3504 0293**. Calculators TI-30XA or TI-30XIIS may be used during quizzes and exams. Students need to prepare a Scantron (Form 882-E) for quizzes and exams.

Student Support Services Available: The math clinic on 3rd floor PKH offers free one-on-one help, and cost share tutoring is available by calling 817-272-2617.

Drop Policy: Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially

withdraw if they do not plan to attend after registering. **Students will not be automatically dropped for non-attendance**. Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (http://wweb.uta.edu/aao/fao/).

Americans with Disabilities Act: The University of Texas at Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including the *Americans with Disabilities Act (ADA)*. All instructors at UT Arlington are required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Any student requiring an accommodation for this course must provide the instructor with official documentation in the form of a letter certified by the staff in the Office for Students with Disabilities, University Hall 102. Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at www.uta.edu/disability or by calling the Office for Students with Disabilities at (817) 272-3364.

Title IX: The University of Texas at Arlington is committed to upholding U.S. Federal Law "Title IX" such that no member of the UT Arlington community shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity. For more information, visit www.uta.edu/titleIX.

Academic Integrity: Students enrolled all UT Arlington courses are expected to adhere to the UT Arlington Honor Code:

> *I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.*
>
> *I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.*

UT Arlington faculty members may employ the Honor Code as they see fit in their courses, including (but not limited to) having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. Per UT System *Regents' Rule* 50101, §2.2, suspected violations of university's standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student's suspension or expulsion from the University.

Student Feedback Survey: At the end of each term, students enrolled in classes categorized as "lecture," "seminar," or "laboratory" shall be directed to complete an online Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student's feedback enters the SFS database anonymously and is aggregated with that of other students enrolled in the course. UT Arlington's effort to solicit, gather, tabulate, and publish student feedback is required by state law; students are strongly urged to participate. For more information, visit http://www.uta.edu/sfs.

Final Review Week: A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week *unless specified in the class syllabus*. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.

Emergency Exit Procedures: Should we experience an emergency event that requires us to vacate the building, students should exit the room and move toward the nearest exit. When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist individuals with disabilities.

Student Support Services: UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to resources@uta.edu, or view the information at www.uta.edu/resources

Important Dates:

August 21 . . . . . First Day of Class
September 1 . . . . . Labor Day Holiday
September 8 . . . . . Census Date
Wednesday, September 24 . . . . . Midterm 1, 9:00-10:50 am
Wednesday, October 22 . . . . . Midterm 2, 9:00-10:50 am
Wednesday, October 29 . . . . . Last day to drop a class
(Submit request to advisor prior to 4 pm)
November 27, 28 . . . . . Thanksgiving Holidays
December 3 . . . . . Last Day of Class
Saturday, December 6 . . . . . Final Exam, 3:30-6:00 pm

Course Schedule:

Week 1: Reals numbers, Exponents, Operations with Algebraic Expressions
Week 2: Factoring, Algebraic Fractions
Week 3: Solutions of Linear Equations in One Variable, Functions
Week 4: Linear Functions, Solutions of Systems of Linear Equations, Applications of Functions in Business and Economics
Week 5: Quadratic Equations
Week 6: Parabolas, Business Applications using Quadratics, Special Functions
Week 7: Matrices
Week 8: Gauss-Jordan Elimination, Matrix Equations, Linear Inequalities in Two Variables
Week 9: Linear Programming
Week 10: Logarithmic Functions, Exponential Functions, Simple Interest
Week 11: Compound Interest, Future Values of Annuities
Week 12: Present Value of Annuities, Loans and Amortization, Probability
Week 13: Union and Intersection of Events, Conditional Probability
Week 14: Bayes' Formula, Permutations, Combinations and Probability

As the instructor for this course, I reserve the right to adjust this schedule in any way that serves the educational needs of the students enrolled in this course. — Daniel T. Wood

Emergency Phone Numbers: In case of an on-campus emergency, call the UT Arlington Police Department at **817-272-3003** (non-campus phone), **2-3003** (campus phone). You may also dial 911.