

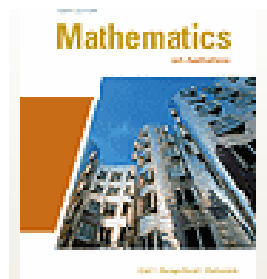


MATH 1324: Mathematics for Business and social sciences
Spring 2015 / CRN 47736/Mon-Wed 8:00am-9:30am

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Office hours	11:30am-12:30pm Mon-Thurs

Required Text

Mathematics with Applications by Lial & Hungerford 10th ed, Addison Wesley.
ISBN-13: 978-0-321-64553-1



Homework:

Homework is to be done online using MyMathLab. You have to purchase an access code to do the online homework. The course ID is **kallarackal90568**. Go to <http://www.coursecompass.com> to register and do the homework. Your school zip code is 77477

Homework for all sections covered on a test is due on the day of the test. Once closed those sections will not be reopened.

Catalog Description: MATH 1324 Mathematics for Business & Social Sciences.

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. 3 credit (3 lecture).

Prerequisites

A grade of C or better in Math 0312 or its equivalent or Meet TSI college-readiness standard for Mathematics.

Course Goal

This course is intended for students majoring in liberal arts and secondary education.

Course Learning Outcomes

1. Apply elementary functions, including linear, quadratic, polynomials, 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.

Core Objectives

Critical Thinking Skills: to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.

Communication Skills: to include effective development, interpretation and expression of ideas through written, oral and visual communication.

Empirical and Quantitative Skills: to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.

TEXT REFERENCE

UNIT I Review

- 2.1 Graphs
- 2.2 Equations of Lines

UNIT II Nonlinear Functions

- 3.4 Quadratic Functions
- 3.7 Rational Functions
- 4.1 Exponential Functions
- 4.3 Logarithmic Functions
- 4.4 Logarithmic and Exponential Equations

UNIT III Systems of Linear Equations

- 6.1 Systems of Two Linear Equations in Two Variables
- 6.2 Larger Systems of Linear Equations
- 6.3 Applications of Systems of Linear Equations
- 6.4 Basic Matrix Operations

UNIT IV Linear Programming

- 7.1 Graphing Linear Inequalities in Two Variables
- 7.2 Linear Programming: The Graphical Method
- 7.3 Applications of Linear Programming
- 7.4 The Simplex Method: Maximization
- 7.5 Maximization Applications

UNIT V Sets and Probability

- 8.1 Sets
- 8.3 Introduction to Probability
- 8.4 Basic Concepts of Probability
- 8.5 Conditional Probability and Independent Events

UNIT VI Counting, Probability Distributions, and

Further Topics in Probability

- 9.1 Probability Distributions and Expected Value
- 9.2 The Multiplication Principle, Permutations, and Combinations
- 9.3 Applications of Counting
- 9.4 Binomial Probability

UNIT VII Mathematics of Finance

- 5.1 Simple Interest and Discount
 - 5.2 Compound Interest
 - 5.3 Annuities, Future Value, and Sinking Funds
 - 5.4 Annuities, Present Value, and Amortization
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DISABILITY SERVICES

Any student with a documented disability (e.g. physical, learning, psychiatric, vision, hearing, etc.) who needs to arrange reasonable accommodations must contact the Ability Support Services Office at the beginning of each semester. Professors are authorized to provide only the accommodations requested by the [Disability Support Services Office](#).

Southwest ADA Counselor – Dr. Becky Hauri – 713.718.7910

Students who require testing accommodations need to schedule an appointment for testing to ensure that staff will be available for proctoring and to arrange for any adaptive equipment that may be required.

Grading

There will be four tests, homework and a comprehensive final exam.. **There is no extra work given for extra credit.**

Final Course Grade

Your final course grade will be computed as follows:
(3 best test grades+ HW grade + final exam grade)/5

Letter grades will be assigned as follows:

Overall Average	Grade
90 – 100	A
80 – 89	B

70 – 79	C
60 – 69	D
Below 60	F

Withdrawal

If for some reason you are unable to continue with the course, you must formally withdraw from the course before the final withdrawal date as per HCC calendar.

March 24 by 4:30pm

Tentative Exam Dates

Exam 1. Covers 2.1, 2.2, 3.4, 3.7, 4.1, 4.3, 4.4	Monday Feb 9
Exam 2. Covers Chapter 6 & 7	Wednesday March 9
Exam 3. Covers Chapters 8 and 9.	Wednesday April 15
Exam 4 Covers Chapter 5	May 6
Comprehensive Final Exam	May 13

These dates may change. But I will let you know at least a week early.

Make-ups

There is no makeup of any exam for ANY reason. However, one of the exam grades will be dropped. The grade for any missed exam will be 0. If you miss two exams, only one zero will be dropped.

Academic Dishonesty

Each student is expected to be in complete compliance with the College's policy on academic honesty set forth in the catalog and student handbook

EARLY ALERT

HCC has instituted an Early Alert process by which your professor may “alert” you and DE counselors that you might fail a class because of excessive absences and/or poor academic performance. A counselor will then reach out to you to discuss your progress and offer any relevant resources. This initiative is designed to provide students with support services and resources to assist them in successfully completing their course.

HCC COURSE WITHDRAWAL POLICY

Beginning Fall 2007, the State of Texas imposes penalties on students who withdraw/drop courses excessively. Students are limited to no more than SIX total

course withdrawals throughout their educational career at a Texas public college or university. Students are encouraged to review the [HCC 6 Drop Policy](#).

HOW TO DROP

- **If a student decides to withdraw from a class upon careful review of other options, the student can withdraw online prior to the deadline through their [HCC Student Center](#).**
- **HCC and/or professors may withdraw students for excessive absences without notification** (see Class Attendance below).
- **Students should check HCC's Academic Calendar by Term for withdrawal dates and deadlines.**

CLASS ATTENDANCE

As stated in the HCC Catalog, all students are expected to attend classes regularly.

ONLINE TUTORING

HCC provides free online tutoring in writing, math, science, and other subjects. Tutoring site: <http://hccs.askonline.net/>. Use your student ID or HCC e-mail address to create an account. Instructions, including a 5-minute video, are provided to make you familiar with the capabilities of this service.

You may use Khan academy for extra help with the topics.

There are helpful videos on mymathlab where you do your homework

CALCULATORS : Calculators are allowed in class. There are some exceptions. Please check with me if you are using a graphing calculator.

ALL ELECTRONIC DEVICES INCLUDING CELL PHONES SHOULD BE TURNED OFF IN CLASS.

FINAL GRADE OF FX

Students who stop attending class and do not withdraw themselves prior to the withdrawal deadline may either be dropped by their professor for excessive absences or be assigned the final grade of "FX" at the end of the semester. Students who stop attending classes will receive a grade of "FX", compared to an earned grade of "F" which is due to poor performance. Please note that HCC will not disperse financial aid

funding for students who have never attended class. Students who receive financial aid but fail to attend class will be reported to the Department of Education and may have to pay back their aid. A grade of "FX" is treated exactly the same as a grade of "F" in terms of GPA, probation, suspension, and satisfactory academic progress

EGLS₃ -- Evaluation for Greater Learning Student Survey System

At Houston Community College, professors believe that thoughtful student feedback is necessary to improve teaching and learning. During a designated time, you will be asked to answer a short online survey of research-based questions related to instruction. The anonymous results of the survey will be made available to your professors and division chairs for continual improvement of instruction. Look for the survey as part of the Houston Community College Student System online near the end of the term.