SOUTHWEST COLLEGE
Department of Mathematics

COURSE SYLLABUS

Mathematics for Business & Social Sciences
SYLLABUS FOR MATH 1324
Spring 2015

INSTRUCTOR: ***Mohammad Abbasi***

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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).

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

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

Audience: Students who are enrolled in the business area may take this course as an elective in order to obtain a broader background in the technique of linear programming and to further expand their mathematical knowledge.
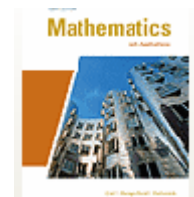
Course Learning Outcomes
1. Apply elementary functions, including linear, quadratic, polynomial, rational, logarithmic, and exponential functions to solving real-world problems.
2. Solve mathematics of finance problems, including the computation of interest, annuities, and amortization of loans.
3. Apply 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.

Textbook: **Mathematics with Applications**; 10th ed.; Lial, Margaret L
          ISBN-13: 978-0-321-64553-1

Required Text
Mathematics with Applications by Lial & Hungerford 10th ed, Addison Wesley.

Optional Text
The textbook has an optional student supplement that contains worked out odd numbered problems in the
text. You may find this useful since most of the suggested homework problems that you
will be doing are odd numbered.

Homework:

Homework is to be done online using MyMathLab. The course ID   *abbasi32515*
Go to http://www.coursecompass.com to register and start doing the homework right away.

Student Assignments
Assignments have been developed that will enhance your learning. To better understand a topic, you will be given assignments on key information that you will need to remember for your success in your career. Students will be required to successfully complete the following:

Attendance/Tardy withdrawal:
Attendance is checked during every class. When you have accumulated 12.5 % or 6 hours of Absences, the instructor will drop you from the class.
You benefit for attending class regularly. You earn rewards as follows: perfect attendance (0 absent and 0 tardy) = 5. The point will add to the final exam grade.
The students receive 10 points as extra credit assign to each test with perfect attendance between two tests.
Any student who arrives 15 minutes after the class has begun or leaves before the class is dismissed without any prior approval of the instructor is considered absent.

Assessment/Make-up and Grading
There are assigned homework problems after every section. It is crucial for you to succeed in this class that you do faithfully your homework every week.

There will be 3 major Test, Homework, and comprehensive departmental final exam.

Tests 60%

Homework 20%

Final Exam 20 %

Your final course grade is based on the following standard HCCS scale.

Final Average	$90 \leq \text{Avg} \leq 100\%$	$80 \leq \text{Avg} < 90\%$	$70 \leq \text{Avg} < 80\%$	$60 \leq \text{Average} < 70\%$
Final Course Grade	A	B	C	D

HCC Policy Statement - ADA
Services to Students with Disabilities
Students who require reasonable accommodations for disabilities are encouraged to report to Dr. Becky Hauri at 713-718-7910 to make necessary arrangements. Faculty is only authorized to provide accommodations by the Disability Support Service Office

HCC Policy Statement: Academic Honesty
A student who is academically dishonest is, by definition, not showing that the coursework has been learned, and that student is claiming an advantage not available to other students. The instructor is responsible for measuring each student's individual achievements and also for ensuring that all students compete on a level playing field. Thus, in our system, the instructor has teaching, grading, and enforcement roles. You are expected to be familiar with the College's Policy on Academic Honesty, found in the catalog. What that means is: If you are charged with an offense, pleading ignorance of the rules will not help you. Students are responsible for conducting themselves with honor and integrity in fulfilling course requirements. Penalties and/or disciplinary proceedings may be initiated by College System officials against a student accused of scholastic dishonesty. "Scholastic dishonesty": includes, but is not limited to, cheating on a test, plagiarism, and collusion.

Cheating on a test includes:
- Copying from another students' test paper;
- Using materials not authorized by the person giving the test;
- Collaborating with another student during a test without authorization;
- Knowingly using, buying, selling, stealing, transporting, or soliciting in whole or part the contents of a test that has not been administered;
- Bribing another person to obtain a test that is to be administered.

Plagiarism means the appropriation of another's work and the unacknowledged incorporation of that work in one's own written work offered for credit.

Collusion mean the unauthorized collaboration with another person in preparing written work offered for credit. Possible punishments for academic dishonesty may include a grade of 0 or F in the particular assignment, failure in the course, and/or recommendation for probation or dismissal from the College System. (See the Student Handbook)

HCC Policy Statements
Class Attendance - It is important that you come to class! Attending class regularly is the best way to succeed in this class. Research has shown that the single most important factor in student success is attendance. Simply put, going to class greatly increases your ability to succeed. You are expected to attend all lecture and labs regularly. You are responsible for materials covered during your absences. Class attendance is checked daily. Although it is your responsibility to drop a course for nonattendance, the instructor has the authority to drop you for excessive absences.

If you are not attending class, you are not learning the information. As the information that is discussed in class is important for your career, students may be dropped from a course after accumulating absences in excess of six (6) hours of instruction. The six hours of class time would include any total classes missed or for excessive tardiness or leaving class early.

You may decide NOT to come to class for whatever reason. As an adult making the decision not to attend, you do not have to notify the instructor prior to missing a class. However, if this happens too many times, you may suddenly find that you have "lost" the class.

Poor attendance records tend to correlate with poor grades. If you miss any class, including the first week, you are responsible for all material missed. It is a good idea to find a friend or a buddy in class who would be willing to share class notes or discussion or be able to hand in paper if you unavoidably miss a class.

Class attendance equals class success.

HCC Course Withdrawal Policy
If you feel that you cannot complete this course, you will need to withdraw from the course prior to the final date of withdrawal, which is given in the college calendar. Before, you withdraw from your course; please take the time to meet with the instructor to discuss why you feel it is necessary to do so. The instructor may be able to provide you with suggestions that would enable you to complete the course. Your success is very important. Beginning in fall 2007, the Texas Legislature passed a law limiting first time entering freshmen to no more than **SIX** total course withdrawals **throughout** their educational career in obtaining a certificate and/or degree.

To help students avoid having to drop/withdraw from any class, HCC has instituted an Early Alert process by which your professor *may* "alert" you and HCC counselors that you might fail a class because of excessive absences and/or poor academic performance. It is your responsibility to visit with your professor or a counselor to learn about what, if any, HCC interventions might be available to assist you – online tutoring, child care, financial aid, job placement, etc. – to stay in class and improve your academic performance.

If you plan on withdrawing from your class, you **MUST** contact a HCC counselor or your professor prior to withdrawing (dropping) the class for approval and this must be done **PRIOR** to the withdrawal deadline to receive a "W" on your transcript. **Final withdrawal deadlines vary each semester and/or depending on class length, please visit the online registration calendars, HCC schedule of classes and catalog, any HCC Registration Office, or any HCC counselor to determine class withdrawal deadlines. *Remember to allow a 24-hour response time when communicating via email and/or telephone with a professor*

and/or counselor. Do not submit a request to discuss withdrawal options less than a day before the deadline. If you do not withdraw before the deadline, you will receive the grade that you are making in the class as your final grade.

Repeat Course Fee
The State of Texas encourages students to complete college without having to repeat failed classes. To increase student success, students who repeat the same course more than twice, are required to pay extra tuition. The purpose of this extra tuition fee is to encourage students to pass their courses and to graduate. Effective fall 2006, HCC charges a higher tuition rate to students registering the third or subsequent time for a course. If you are considering course withdrawal because you are not earning passing grades, confer with your instructor/counselor as early as possible about your study habits, reading and writing homework, test taking skills, attendance, course participation, and opportunities for tutoring or other assistance that might be available.

Classroom Behavior
It is our shared responsibility to develop and maintain a positive learning environment for everyone. As your instructor, I take this responsibility very seriously and will inform members of the class if their behavior makes it difficult for him/her to carry out this task. As a fellow learner, you are to respect the learning needs of your classmates and assist your instructor achieve this critical goal.

Use of Camera and/or Recording Devices
As a student active in the learning community of this course, it is your responsibility to be respectful of the learning atmosphere in your classroom. To show respect of your fellow students and instructor, you will turn off your phone and other electronic devices, and will not use these devices in the classroom unless you receive permission from the instructor.

Use of recording devices, including camera phones and tape recorders, is prohibited in classrooms, laboratories, faculty offices, and other locations where instruction, tutoring, or testing occurs. Students with disabilities who need to use a recording device as a reasonable accommodation should contact the Office for Students with Disabilities for information regarding reasonable accommodations

Instructor Requirements
As your Instructor, it is my responsibility to**:**
- Provide the grading scale and detailed grading formula explaining how student grades are to be derived
- Facilitate an effective learning environment through class activities, discussions, and lectures
- Description of any special projects or assignments
- Inform students of policies such as attendance, withdrawal, tardiness and make up
- Provide the course outline and class calendar which will include a description of any special projects or assignments, Arrange to meet with individual students before and after class as required

Student Requirements

To be successful in this class, it is the student's responsibility to**:**
- Attend class and participate in class discussions and activities

- Read and comprehend the textbook
- Complete the required assignments and exams:
- Chapter Exams, Homework, Final Exam
- Ask for help when there is a question or problem
- Keep copies of all paperwork, including this syllabus, handouts and all assignments

Course Out line

Review

Jan 21	2.1 Graphs
Jan 26	2.2 Equations of Lines
	Omitted Linear Inequalities in a Single Variable

Nonlinear Functions

Jan 28	3.4 Quadratic Functions
Feb 2	3.7 Rational Functions
Feb 4	4.1 Exponential Functions
Feb 9	4.3 Logarithmic Functions
Feb 11	4.4 Logarithmic and Exponential Equations
Feb 16	**President Day Holiday**
Feb 18	**Test # I**

Systems of Linear Equations

Feb 23	6.1 Systems of Two Linear Equations in Two Variables
Feb 25	6.2 Larger Systems of Linear Equations
Mar 2	6.3 Applications of Systems of Linear Equations
Mar 4	6.4 Basic Matrix Operations
	Omitted Matrix Inverses
	Omitted Applications of Matrices (Omit Code Theory and Routing)
Mar 9	**Test #II**

Linear Programming

Mar 11	7.1 Graphing Linear Inequalities in Two Variables
Mar 16 – 22	**Spring Break Holiday**
Mar 23	7.2 Linear Programming: The Graphical Method
Mar 24	**Last Day for Students Administrative withdrawal**
Mar 25	7.3 Applications of Linear Programming
Mar 30	7.4 The Simplex Method: Maximization
Apr 1and 6	7.5 Maximization Applications
	Omitted The Simplex Method: Duality and Minimization
	Omitted The Simplex Method: Nonstandard Problems
Apr 8	Test # 3 Reviews
Apr 13	**Test # III**

Sets and Probability

Apr 15	8.1 Sets
	8.2 Applications of Venn Diagrams (**Optional**)
Apr 20	8.3 Introduction to Probability
Apr 22	8.4 Basic Concepts of Probability
Apr 27	8.5 Conditional Probability and Independent Events
	Omitted Bayes' Formula
Apr 29	Test # 4 Reviews

May 4   Test # IV

May 6   Final Exam Review

May 13   Comprehensive Final Exam

MyMathLab is an interactive website where you can:
- Self-test to improve your math skills.
- Study more efficiently. Create personalized study plans with exercises that match your book.
- Get help when you need it. Includes multimedia learning aids like videos and animations.
- Talk to a live tutor via a toll free number.

Before You Begin:
To register for MyMathLab you will need:

☑ **A "Course ID" provided by your instructor** abbasi32515

☑ **A MyMathLab student access code** (packaged with your new text or available for purchase at with a major credit card at www.mymathlab.com

☑ **Your school's zip code:** 77477_____

☑ A valid email address

Student registration:
- Go to http://www.coursecompass.com and click the **Register** button for Students.
- Review the **Before You Start** information. If you have everything you need to register, click **Next**.
- Enter your **Course ID** as provided by your instructor and click **Next.**

- If you have your access code, click **Register** (if you need to buy access online, click that option and follow those prompts to register).
- Read the Privacy Policy and License Agreement and click "**I Accept."**
- Select "**No, I am a New User**" and enter in your **Access Code** in the fields provided (type one "word" per box).
- Enter your School's **Zip Code,** select your Country, and click **Next.**
- Enter your **Name** and **Email** and select **Your School.**
- Create your **Login** Name and **Password**, answer the **Security** Question, and click **Next**.

If successful, you see a **Confirmation & Summary** screen; write down your confirmed login/password in case you forget it! A confirmation email will also be sent to you - if you use a Spam email blocker, be sure to allow emails from Pearsoned.com.

Logging In:
- Go to http://www.coursecompass.com and click the **Log In** button for Students.
- Enter the **login name and password** you just created (write it down in case you forget it!) and click **Log In**.
- You will see the name of your **course** listed on the left; click that link to access your course and Announcements.

The first time you enter the site from your personal computer *and* anytime you use a new computer, click on the software **Installation Wizard** on the Announcements page. This wizard will walk you through installing the software you will need to use the MyMathLab resources.   Note: Software may already be installed on the school's lab computers; check with your lab administrator.

Need Help?
- Visit **http://www.mymathlab.com/contactus.html** for student "getting started" information, to fill out an online request form, or to use Pearson's live "Chat" feature to talk with a member of the support team.
- Additional help can be found on your course Announcements page by clicking **Tip Sheets (?),** as well as in any Chapter Contents area by clicking "**MyMathLab Student Help"** at the top.

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MyMathLab includes access to the AW Tutor Center!
Visit **www.aw-bc.com/tutorcenter** for available tutoring services.

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