

Course Syllabus

Mathematics 1090, Section 02, Summer 2016
Business Algebra

Instructor: Sabine Lang
Office: LCB Loft
E-mail: sabine.lang@utah.edu

Class Hours: MWF, 9:00 AM - 11:15 AM, JTB 130

Office Hours: Monday 2-3PM, Wednesday 4-5PM or by appointment

Text: *Business Algebra*, by Kelly MacArthur, 2nd edition. ISBN: 9781465240989

Prerequisites: "C" or better in (MATH 1010 OR MATH 1050 OR MATH 1080) OR Accuplacer CLM score of 60 or better OR ACT Math score of 23 or better OR SAT Math score of 540 or better.

Course description: Functions and graphs, polynomial and rational functions, matrices, Gaussian elimination, exponential and logarithmic functions, growth, periodic and continuously compounded interest, arithmetic and geometric series, annuities and loans.

Expected Learning Outcomes: Upon successful completion of this course, a student should be able to:

1. Graph and analyze quadratic, exponential and logarithmic functions; solve quadratic, exponential and logarithmic equations.
2. Understand what a mathematical function is and know how to use linear, quadratic, logarithmic and exponential functions to model real world examples.
3. Know how to solve a system of linear or quadratic equations that arise in business applications.
4. Find solutions to linear programming problems, to maximize a function over a geometric region.
5. Perform simple matrix algebra computations.
6. Use matrices to solve systems of linear equations.
7. Understand what an inverse function is and be able to find the inverse function, when it exists.
8. Distinguish between simple and compound interest situations.
9. Calculate future and present value of annuities, and know when to use which formula for the life application.
10. Compute an amortization schedule and loan payments, such as automobile or mortgage payments.

Homework: There will be homework assigned for every lecture of the semester, even when there is a mid-term exam. Half of the grade will be for completeness, and the other half for the correctness of a few randomly chosen exercises, **with all work shown**. Homework and due dates will be posted on Canvas, and communicated to you in class. No late homework will be accepted, you will get a score of zero for the homework that you do not turn in, but I will drop the two lowest homework. You can work with others on the homework, but **your final write-up must be your own**. You must write your name and student ID on each homework that you turn in, and each homework must be stapled. I will only collect homework at the beginning of class. **Late homework, unstapled homework or homework without a name will not be graded.**

Quizzes: There will be quizzes during every class and covering the material seen during the previous lecture. **No make-up quizzes will be given**, you will get a score of zero for the quizzes that you miss, but I will drop the two lowest quizzes. I reserve the right to give the quiz at any time during the lecture.

Mid-term exams: You will have two mid-term exams, which will take place in the usual classroom and be one hour long. You **MUST** bring a valid ID to the exam. Absence from an exam will be excused only if you can provide verifiable and convincing evidence that you have a significant illness or serious family crisis that will prevent you from attending. Except under extremely unusual circumstances, you must inform me in advance of the missed test. **It is your responsibility to promptly make arrangements with me to make up the test, I reserve the right to not give you a make-up exam if I think your excuse is not valid or if you contact me more than two days after the missed test.** I reserve the right to make alternate exams more difficult than the scheduled exam.

Final: The **final exam** will be comprehensive.

Grading Policy: Your grade will be based on:

Homework	15 %
Quizzes	15 %
Mid-term exams	40% (20% each)
Final Exam	30%

Grades (Evaluation and criteria): Final letter grades will be determined by overall percentage as follows:

A	93% – 100%	B-	80% – 82.9%	D+	67% – 69.9%
A-	90% – 92.9%	C+	77% – 79.9%	D	63% – 66.9%
B+	87% – 89.9%	C	73% – 76.9%	D-	60% – 62.9%
B	83% – 86.9%	C-	70% – 72.9%	E	0% – 59.9%

Calculators: You will need a calculator for this course. A scientific calculator will be sufficient. **Graphing or programmable calculator will not be allowed on exams.**

ADA Statement: The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you will need accommodations in the class, reasonable prior notice needs to be given to the Center for Disability Services, 162 Olpin Union Building, 581-5020 (V/TDD). CDS will work with you and the instructor to make arrangements for accommodations. All information in this course can be made available in alternative format with prior notification to the Center for Disability Services.

Tutoring: The Rushing Math Center offers free drop-in tutoring, a computer lab, and study areas for undergraduates. The Rushing Student Center is adjacent to the LCB and JWB. The hours for the Summer semester are: 8 am – 8 pm Monday to Thursday and 8 am – 4 pm on Friday.

Classroom Etiquette: Please turn off your cell phones while you are in class. The use of computers is not allowed in the classroom. I will expect respectful behavior in my classroom. If I think that your behavior is disrespectful or distracting, I will ask you to leave the class.

Cheating: If you cheat on any homework, quiz, project or exam, I will give you a grade of zero for that work. Depending on the severity of the cheating, I may decide to fail you from the class. In all cases, I will report the incident to the Dean of Students, and to the International Students Office in the case of an international student.

Webpage: All information concerning this class will be posted on the Canvas webpage of the class. Any important information will be given in class and on the Canvas webpage. **You are responsible for checking the webpage on a regular basis** (you can have the communication from Canvas forwarded to your email address).

Disclaimer: This syllabus may change during the semester. If I do any modification to this syllabus, I will let you know in class and post the new syllabus on the Canvas webpage.

Some important dates for this class:

Monday, May 16	First day of class
Thursday, May 19	Last day to drop (delete) class
Friday, May 27	First mid-term exam (in class)
Monday, May 30	Memorial Day (no class)
Friday, June 3	Last day to withdraw from class
Friday, June 10	Second mid-term exam (in class)
Monday, June 20	Last day of class
Wednesday, June 22	Final exam (in class, 9:00 AM to 11:15 AM)