

Mathematics 1090

Spring, 2018

Instructor: Rebekah Eichberg

Class Time and Place: 9:10-10:30 a.m.
Tuesday and Thursday
in WEB L114

Office Hours: TBD
or by appointment.

Office Location: LCB Loft (4th Floor)
E-mail address: eichberg@math.utah.edu

Business Algebra, 2nd edition, published by Kendall Hunt, ISBN 9781465240989

Course Information: Math1090, College Algebra for Business and Social Sciences is a 3-credit semester course.

Prerequisite: At least a C grade in Math1010 (Intermediate Algebra) OR Math1050 (College Algebra) OR in Math1080 (Precalculus) OR an Accuplacer score of 60 on the College Level Math (CLM) test OR at least an ACT Math score of 23 OR at least SAT Math score of 540.

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 sequences, 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.

Tutoring Lab: T. Benny Rushing Mathematics Student Center (adjacent to JWB and LCB), Room 155
M - Th 8 a.m. - 8 p.m.
F 8 a.m. - 6 p.m.
(closed Saturdays, Sundays and holidays)

Private Tutoring: University Tutoring Services, 330 SSB
(they offer inexpensive tutoring). There is also a list of tutors at the Math Department office in JWB233.

Computer Lab: T. Benny Rushing Mathematics Student Center, Room 155C.
M - Th 8 a.m. - 8 p.m.
F 8 a.m. - 6 p.m.
Link to computer lab is <http://www.math.utah.edu/ugrad/lab.html>

Grading: The grades will be calculated as follows:
Homework: 10%
Quizzes 10%
Midterm 1: 20%
Midterm 2: 20%
Midterm 3: 15%
Final Exam: 25%

Note: The lowest grade of all the midterms will be counted for 15% all though it is reflected that Midterm is 15%. For example, if Midterm 1 is your lowest score, then it will count for 15% of your grade. This applies to all the exams.

Homework: Homework will be due on Tuesday of each week.

We will be using Maple TA for the homework. Each homework is worth 55 points but will be put into Canvas as 50 points to account for any difficulties or small errors on Maple. Because of this cushion, please do not email me about small errors that you may be having.

Late homework will receive 0 points. However, I will drop 5 of your lowest homework scores.

- Weekly Quizzes:** There will be a total of 10 weekly in class quizzes, which means you'll have a quiz every week of classes, except for test weeks and the final week of courses. Quizzes can be given anytime during the class, meaning, if you come late, you might miss it or if you leave early you might miss it. Quizzes cannot be made up. **Two of your lowest quiz grades will be dropped.**
- Midterms:** There will be three in-class midterm exams throughout the semester, and the dates will be as follows:
- **Midterm 1: Tuesday, January 30**
 - **Midterm 2: Tuesday, February 27**
 - **Midterm 3: Tuesday, April 3**
- Final Exam:** The final exam for this class is comprehensive and departmental. It will occur on **Monday, April 30, 2018 from 3:30-5:30**. If you have a conflict with another exam, you must let me know by **April 15th**.
- Online Grades:** I will put your grades online on Canvas. You can get there easily from the main University of Utah website www.utah.edu. To log in, you use the same student id and password that you use for Campus Information. Please be sure to check Canvas periodically to make sure all of your grades are entered correctly.
- Calculators:** For exams, you will be allowed to use a scientific calculator, but only a

calculator from this approved list of calculators. This will also be true on the final exam. Please do not argue about calculators – this is an approved list from the department and NO accommodations will be made. If you do not want to purchase a calculator, you are able to rent one from the library on exam days.

The approved calculators are as follows:

- TI-30Xa scientific calculator
- TI-30XS MultiView scientific calculator
- TI-34 Multiview scientific calculator
- TI-30X IIS scientific calculator
- Casio fx-300ES scientific calculator
- Casio fx 300 ES PLUS
- Casio fx-300MS scientific calculator
- Casio fx-260 SOLAR scientific calculator

Grading Scale:

The grade scale will be the usual:

A (93-100), A- (90-92), B+ (87-89), B (83-86), B- (80-82), C+ (77-79), C (73-76), C- (70-72), D+ (67-69), D (63-66), D- (60-62), E (0-59).

If I do need to curve the grades, I will simply shift everything down by a few points (whatever is necessary).

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 & Access (CDA), 162 Olpin Union Building, 581-5020 (V/TDD). CDA will work with you and me to make arrangements for accommodations. All information in this course can be made available in alternative format with prior notification to CDA.

Student Responsibilities:

All students are expected to maintain professional behavior in the classroom setting, according to the Student Code, spelled out in the Student Handbook. You have specific rights in the classroom as detailed in Article III of the Code. The Code also specifies proscribed conduct (Article XI) that involves cheating on tests, collusion, fraud, theft, etc. Students should read the Code carefully and know you are responsible for the content. According to Faculty Rules and Regulations, it is the faculty responsibility to enforce responsible classroom behaviors,

beginning with verbal warnings and progressing to dismissal from class and a failing grade. Students have the right to appeal such action to the Student Behavior Committee.
<http://regulations.utah.edu/academics/6-400.php>

- Classroom Social Equity:** I strive to be ethical, kind, fair, inclusive and respectful in my classroom and expect students to behave likewise. In this regard, I have these requests of you, my student:
1. Please inform me of whichever pronouns you prefer me to use for you. I will put great effort into honoring your request and ask that you correct me if I do happen to make a mistake.
 2. Please do tell me, discreetly, if you have any sort of anxiety disorder, TBI, PTSD, C-PTSD, or any other challenge that would cause psychological harm to you by me calling on you in class. I want students to feel a little uncomfortable and stretched during class, while working on problems as a large group, but I definitely don't want to cause any human being harm. So, please just tell me if that is the case for you and I will confidentially accommodate your request.
 3. If you are making inappropriate comments or being rude towards other students, I will ask you to leave. I hope to make the classroom a safe space for all.
 4. If your preferred name is different than your legal first name (the preferred name you chose does indeed show up in CIS on my roll sheet, but not yet in Canvas), please log into Canvas and go to

Account (on far left)-->Settings and change your Display Name to be the name you prefer to be addressed by. This will help me greatly to know students' names, and to address you correctly when responding to Canvas quiz comments.

Additional Notes:

If you are a Business Scholar, please let me know during the first week of classes so that we can discuss the planned dates that you will be missing classes. I have scheduled homework, quizzes, and midterms on Tuesday's to help prevent difficult with students in this program.