Mathematics 1090-005
Spring 2018

Instructor: China Mauck

Class Time and Place: 9:40-10:30 a.m.
Mondays, Wednesdays, and Fridays
AEB 320

Office Hours: TBD

Office Location: JWB 226
E-mail address: mauck@math.utah.edu

Class Web Page: https://utah.instructure.com/courses/475901
You can get here by logging into CIS and clicking on “Business Algebra” under “My Classes.”


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)
They are also offering group tutoring sessions. If you're interested, inquire at the Tutoring Lab.  http://www.math.utah.edu/ugrad/tutoring.html

**Private Tutoring:**
University Tutoring Services, 330 SSB
(they offer inexpensive tutoring). There is also a list of tutors at the Math Department office in JWB 233.

**Computer Lab:**
also in the 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 20%
Midterm 20%
Midterm 10%
Final Exam 30%
(Note: There will be 3 midterms. Your lowest midterm score will count for 10% of your grade and your top two midterm scores will each count for 20% of your final grade.)

**Homework:**
You will have weekly online homework assignments due every Monday night at 11 pm. Each assignment will cover 3 or 4 sections of the book, for a total of 31 sections of homework through the semester. No late homework will be accepted for any reason. **I will drop your lowest six homework section scores.**

**Weekly Quizzes:**
There will be weekly 20-minute quizzes every Wednesday in class (except the days of the midterms.) The quizzes will cover the material covered in the previous three class times. All quizzes will be group quizzes, and I will assign groups through Canvas. There will be no make-up quizzes. No exceptions. There will be approximately 10 total quizzes.
I will drop your lowest two quiz scores.

**Midterms:**
There will be three one-hour midterm exams throughout the semester, which will take place during normal class time in our usual classroom. The dates for the midterms are:

- **Wednesday, January 31**
- **Wednesday, February 28**
- **Wednesday, April 4**

**Final Exam:**
The final exam for this class will be **Monday, April 30 from 3:30-5:30 p.m.** This is a departmental final, meaning all sections of 1090 will take the same exam. It is not possible to take the final at any other time. **If this time conflicts with the final for another one of your courses, it is your responsibility to let me know by April 15 so we can make the proper arrangements.**

**Notes sheets for exams:**
For the midterm and final exams, you will be allowed one 8.5 × 11 inch sheet of paper (front and back) with notes and formulas to refer to.

**Online Grades:**
I will put your grades online on Canvas. I will update them often so you know how you are doing in the course. Check them on a regular basis to make sure there were no data entry mistakes. I will correct mistakes quickly if you let me know about them.

**Calculators:**
I will let you know before quizzes and exams whether or not calculators will be allowed. When they are allowed, I will allow only the scientific calculators listed below (no graphing calculators or programmable calculators allowed).

**Approved Calculators:**
- TI-30Xa Scientific Calculator
- TI-30XS MultiView Scientific Calculator
- TI-34 MultiView Scientific Calculator
- TI-30X IIS Scientific Calculator
- Casio fx-300ES PLUS
- Casio fx-300ES Scientific Calculator
- Casio fx-300MS Scientific Calculator
- Casio fx 260 SOLAR Scientific Calculator

**Grading Scale:**
The grading 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)

**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, as my students:

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.
3. 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.