

Mathematics 1090-003

Summer 2020 (Second Half)

- Instructor:** China Mauck
- Class Time and Place:** 10:00 a.m.-12:15 p.m.
Mondays, Wednesdays, and Fridays
Meeting on Zoom (meeting link in Canvas)
First meeting: Friday, June 19
Last meeting: Friday, July 31 (This is the final exam period)
Holidays (no class): Friday, July 3 (Independence Day holiday)
Friday, July 24 (Pioneer Day holiday)
- Remote Learning:** Because we are meeting on Zoom, you need a **computer or tablet** and a working **webcam and microphone** (or a computer/tablet with built-in camera and microphone) in order to participate. Attendance is part of your grade. You will be expected to have your camera on during class so you can be part of discussions and group work. You will also need **a way to scan your work** to submit for homework, quizzes, and exams. This can be a stand-alone scanner, a smartphone/tablet with a camera (download a free scanning app), or (possibly) a camera (Note: photos will be harder to work with and may require some extra work from you – if possible, try to submit scans).
- Office Hours:** TBD (will be hosted via Zoom; we will take a poll for days/times)
You can also email me to set up a meeting.
- Office Location:** JWB 118 (I will not be in my office this summer; you can email me to set up a Zoom appointment.)
- E-mail address:** mauck@math.utah.edu
- Class Web Page:** <https://utah.instructure.com/courses/628773>
You can get here by logging into CIS and clicking on “Business Algebra” under “My Classes.”
- Text:** *Business Algebra*, 3rd edition, published by Kendall Hunt, (ISBN: 9781524993405)
Information about purchasing the book is available at <http://www.math.utah.edu/schedule/bookInfo/Math1090BookInfo.pdf>
- Course Information:** Math1090, College Algebra for Business and Social Sciences is a 3-credit semester course.
- Prerequisite:** At least a C grade in Math980 (Beginning Algebra), Math1010 (Intermediate Algebra) OR Math1030 (Quantitative Reasoning) 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 570.

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.

Lecture Videos:

There is a complete set of lecture videos for this course, at

<http://www.math.utah.edu/lectures/math1090.php>

I will assign videos from this series to watch before every class meeting. During class, we will spend a little time reviewing the topics discussed in the videos you watched, before splitting up into small groups to practice problem-solving.

Tutoring:

Online tutoring is available. Visit <https://learningcenter.utah.edu>.

Grading:

The grades will be calculated as follows:

Participation	5%
Homework	10%
Quizzes	15%
Midterm 1	20%
Midterm 2	20%
Final Exam	30%

Gradescope:

We will be using the grading software Gradescope for homework, quizzes, and exams. You will access Gradescope through our class Canvas page. For every homework assignment, quiz, and exam, you (or someone in your group, for the group quizzes) will scan your work and

upload it to Gradescope, where it will be graded and receive feedback. **You need to upload your work in a very specific format for it to show up correctly in Gradescope.** We will go through this in class, I will post examples in Canvas, and the first few assignments will be partially graded on formatting and submission so that everyone can get the hang of it. **Please keep all your work for homework, quizzes, and exams in case your scans are uploaded incorrectly and you need to resubmit.**

Participation:

Your participation grade will be calculated based on daily attendance and participation in Canvas discussions. To get full participation credit, you must be in class every day (note: there are only 17 class meetings, including midterm and final exam days, so missing just one means you have missed a significant amount of in-class time) and you must contribute thoughtfully to a Canvas discussion at least once a week. If you do need to miss class for a reason you think should be excused, please send me an email explaining the situation, and we will decide how to handle it.

Homework:

You will have daily homework assignments due at midnight the night before each class (Sunday, Tuesday, and Thursday nights). No homework will be due the nights before exams. There will be approximately 13 homework assignments in total. **I will drop your lowest two homework scores.** Homework will be submitted using Gradescope. **No late homework will be accepted.**

Daily Quizzes:

Every day in class (except for exam days) there will be a group quiz. The quiz will cover the material covered in the previous class. I will assign groups. There will be no make-up quizzes. There will be approximately 13 total quizzes. **I will drop your lowest two quiz scores.** Quizzes will be submitted to Gradescope by one member of each group at the end of class.

Midterms:

There will be two one-hour midterm exams throughout the semester, which will take place during normal class time. The exam will be available on Canvas and you will have the option to print the exam or use your own paper (following the format of the exam). You will join the class Zoom meeting as usual and leave your camera on while you take the exam. I will build in time before and after the one-hour exam period for printing, scanning, and uploading. The dates for the midterms are:
Wednesday, July 8
Wednesday, July 22

Final Exam:

The final exam for this class will be **Friday, July 31** from **10:00 a.m.-12:00 p.m.** The format for the final will be the same as for the midterms, but the final exam will be longer and comprehensive. I will build in time before and after the two-hour exam for printing and scanning.

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. I may ask you to scan your notes and submit them (separately from your exam).

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.

Veterans Center: If you are a student veteran, the U of Utah has a Veterans Support Center located in Room 161 in the Olpin Union Building. Hours: M-F 8-5pm. Please visit their website for more information about what support they offer, a list of ongoing events and links to outside resources: <http://veteranscenter.utah.edu/>. Please also let me know if you need any additional support in this class for any reason.

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>

Addressing Sexual Misconduct: Title IX makes it clear that violence and harassment based on sex and gender (which includes sexual orientation and gender identity/expression) is a civil rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, color, religion, age, status as a person with a disability, veterans status or genetic information. If you or someone you know has been harassed or assaulted, you are encouraged to report it to the Title IX Coordinator in the Office of Equal Opportunity and Affirmative Action, 135 Park Building, 801-581-8365, or the Office of the Dean of Students, 270 Union Building, 801-581-7066. For support and confidential consultation, contact the Center for Student Wellness, 426 SSB, 801-581-7776. To report to the police, contact the Department of Public Safety, 801-585-2677(COPS).

Safety Statement:

The University of Utah values the safety of all campus community members. To report suspicious activity or to request a courtesy escort, call campus police at 801-585-COPS (801-585-2677). You will receive important emergency alerts and safety messages regarding campus safety via text message. For more information regarding safety and to view available training resources, including helpful videos, visit safeu.utah.edu.

Student Names and Personal Pronouns: Class rosters are provided to the instructor with the students legal name as well as Preferred first name (if previously entered by you in the Student Profile section of your CIS account). While CIS refers to this as merely a preference, I will honor you by referring to you with the name and pronoun that feels best for you in class, on papers, exams, group projects, etc. Please advise me of any name or pronoun changes (and update CIS) so I can help create a learning environment in which you, your name, and your pronoun will be respected. If you need assistance getting your preferred name on your U-ID card, please visit the LGBT Resource Center Room 409 in the Olpin Union Building, or email bpeacock@sa.utah.edu to schedule a time to drop by. The LGBT Resource Center hours are M-F 8am-5pm, and 8am-6pm on Tuesdays.

Wellness Statement:

Personal concerns such as stress, anxiety, relationship difficulties, depression, cross-cultural differences, etc., can interfere with a student's ability to succeed and thrive at the University of Utah. For helpful resources contact the Center for Student Wellness at www.wellness.utah.edu or 801-581-7776.

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 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. If this is the case, I will confidentially accommodate your request.
2. 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. Also, please set your Zoom name to your preferred name.
3. If there is ever a time that you feel this course or the curriculum is not equitable, please email me or meet with me to discuss your concerns so we have a chance to address them.

Additional Policies: I reserve the right to change my policies stated in this syllabus at some point in the semester. If I do make a change to a policy, I will announce it in class and send the change in email.