

Math 1090-002, Business Algebra

Summer 2019. MWF 9:00-11:15. JTB 130

Instructor: Hannah Hoganson

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Office: JWB 307

Office Hours: Monday 1-2, Wednesday 1-2, and other times by appointment.

Text: *Business Algebra*, 3rd edition, published by Kendall Hunt, (ISBN: 9781524970420)

Book Purchasing Instructions: <http://www.math.utah.edu/schedule/bookInfo/Math1090BookInfo.pdf>

Canvas: We will be using the Canvas page for this course to post homework, announcements and to send e-mail. Students should check their current Canvas notification settings to ensure they stay up to date. Grades will also be kept on Canvas, and I will do my best to keep them up to date. You should regularly check what is posted against what is written on hard copies of assignments to ensure no mistakes are made.

Course Information and Description: Math 1090, Business Algebra is a 3 credit course. It covers 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.

Prerequisites: At least a C grade in Math 980 (Beginning Algebra), Math 1010 (Intermediate Algebra) OR Math 1030 (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

Expectations: It is expected that students not only attend but engage in lecture. This includes, but is not limited to, paying attention, asking questions, and participating in activities and group work. Laptops and cell phones are strictly prohibited during class time as they distract from a learning environment; students who refuse to comply may be asked to leave the classroom.

About Grading and Assessments:

Grade Breakdown:

	Percentage of Final Grade
Lecture Checks	5%
Homework	20%
Quizzes	12%
Exams	38% (19% each)
Final Exam	25%

Grade Scale: The base grade scale is below. These thresholds may be lowered but will not be raised.

	+		-
A	98-100	92-98	90-92
B	88-90	82-88	80-82
C	78-80	72-78	70-72
D	68-70	62-68	58-62
E		0-58	

Lectures: We will be using a flipped classroom format for this class; this means that students will be watching lecture videos outside of class so that class time can be spent problem solving, giving students the opportunity to engage in hands on active learning with the guidance of the instructor. Utilizing lecture videos also allows students to watch and re-watch the lectures at any time and at any pace. It is imperative that students stay up to date with the lecture videos. As such, each class, except exam days, will begin with a short “lecture check” assessment on basic concepts covered in the assigned lecture videos. The lectures can be found at <http://www.math.utah.edu/lectures/math1090.html>

Homework: Homework will be due at the beginning of class every Wednesday. Each week multiple sections of homework will be due, worth 10 points each. One problem per section will be graded for accuracy, out of 4 points, and the other 6 points will be for completeness. The purpose of written homework is for students to practice computational skills and to familiarize themselves with various concept applications, and to assess a students’ current understanding of course content.

Quizzes: Quizzes will be given at some point during class every Friday and will be approximately 20-30 minutes long. Students will be assigned to groups of 2-4 for the quizzes, but each student will turn in their own paper and receive their own grade. Education research has shown that one of the best ways to learn something is to explain it to others. The goal of group quizzes is to both assess students’ current understanding of the course material, as well as foster small group discussion.

Exams: There will be two exams given during the semester on Friday, May 24 and Friday, June 7 during the regularly scheduled class period. The final exam is scheduled by the University for Wednesday, June 19, 9:00-11:15 am. All exams will take place in the regular classroom, JTB 130. Exams are written to assess current knowledge and understanding of course content. The final is a comprehensive exam, students who chose to skip a subject should not expect to receive a grade of A or B in the course.

Calculators: Students are allowed to use a scientific calculator on all assessments. Graphing Calculators, programmable calculators, and internet-enabled calculators are not allowed. A list of approved calculators will be posted on the Canvas page.

Make-Up Policy: Students with university excused absences should make alternative arrangements with me as soon as possible if the absences interfere with any course components. If a student expects to miss assignment due dates or an exam, they are required to notify the instructor in advance, in person or by e-mail. The validity of excuses, whether given in advanced or not, will be handled on a case-by-case basis. As per university policy the final exam may not be taken early. The instructor reserves the right to alter the questions and format of any make-up assignment given. To accommodate for busy weeks and bad days, one lowest homework score and one lecture check assessment will be dropped from the grade.

Academic Dishonesty: Cheating in any form will not be tolerated and may result in a failing grade for the relevant assignment or exam and/or a failing grade in the course. The guidelines in University of Utah Policy 6-400: Code of Student Rights and Responsibilities will be followed.

About the Mathematics:

Tutoring and Resources: Free tutoring offered at the T. Benny Rushing Mathematics Center, which is located in the basement between the JWB and LCB buildings. The hours are 8 am to 8 pm Monday through Thursday and 8 am to 4 pm on Fridays. The tutoring center also contains a computer lab where students can print materials for math and physics for free. The math department has a full set of lecture videos which you are welcome to use to supplement our course material. These can be found at <http://www.math.utah.edu/lectures/>

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

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

About the Classroom:

Accommodations: The Americans with Disabilities Act requires that reasonable accommodations be provided for students with physical, cognitive, systemic learning, and psychiatric disabilities. If you will need accommodations in this class, reasonable prior notice needs to be given to the instructor and to the Center for Disability & Access (162 UNION , 801-581-5020). All written information in this course can be made available in alternative format with prior notification to the Center for Disability & Access.

Student Names and Personal Pronouns: Class rosters are provided to the instructor with the student's 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 UIDcard, 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.

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. Students 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, plagiarism, and/or collusion, as well as fraud, theft, etc. Students should read the Code carefully and know they are responsible for the content. According to Faculty Rules and Regulations, it is the faculty responsibility to enforce responsible classroom behaviors, and I will do so, beginning with verbal warnings and progressing to dismissal from and 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).

Student Wellness: 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.

Important Dates:

First Day of Class- Monday, May 13

Last day to add or drop – Thursday, May 16

Exam 1- Friday, May 24

Memorial Day- Monday, May 27

Last day to withdraw- Friday, May 31

Exam 2- Friday, June 7

Last Day of Class- Wednesday, June 19

Final Exam- Wednesday, June 19, 9:00-11:15 am

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.