

Course syllabus
Mathematics 1090, section 001 Fall 2020
Business algebra

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Online office hours: Wednesdays and Fridays, 2:00-3:00 pm

Location & meeting times: Zoom meetings, Tuesdays and Thursdays / 12:25 PM-01:45 PM

Course description: In Math 1090, College Algebra for Business and Social Sciences, students will gain a background of algebra topics that will be important in future business classes. Topics include 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. Math1090 is a 3-credit semester course and satisfies the University's QA requirement.

Course type: IVC (Interactive Video Conferencing)

COVID-19 considerations: Students must self-report if they test positive for COVID-19 via coronavirus.utah.edu.

Canvas: Canvas will be used for posting course announcements, homework assignments, grades, files and any relevant material. You are also welcome to make use of the Canvas discussion board to discuss course problems or topics. You can access the Canvas page through CIS or by logging in at utah.instructure.com. Students should check the Canvas page regularly for course information and resources. Email notifications and correspondence will be sent to the student's UMail address ([u-number]@utah.edu); this email account must be checked regularly.

Textbook: Business Algebra, 3rd edition, published by Kendall Hunt, (ISBN: 9781524993405). Book purchasing instructions: he.kendallhunt.com/product/business-algebra-4

Other technical requirements:

- **Calculators:** For the final exam, some of the midterm exams and homework, you may need to use a calculator. Absolutely not programmable, graphing or internet-connected calculators will be allowed on exams. You are not allowed to use a phone or computer calculator app. If you are uncertain whether your calculator meets requirements, ask me.
- **Additional equipment:** The following equipment is required for proctored testing. Having this equipment will also make accessing course materials and attending office hours and study sessions more efficient and effective.
 - A strong internet connection with sufficient bandwidth (in order to participate in IVC classes, access course materials, and take exams)
 - A webcam on your computer or camera on your phone (this is required for taking quizzes and exams in Zoom; it is recommended for IVC lecture classes)
 - A scanning device which is different than the device you are using for your webcam (smart-phones can be used as scanning devices)

- A microphone (used for online meetings)
- A printer is recommended, but not required, so that you can print out templates for quizzes and exams ahead of time. If you do not have a printer, you will need to make and use hand-written versions. You must copy these exactly and they are designed to be fast and straight forward to create by hand.
- Students are expected to be computer literate and Canvas, Zoom and Gradescope navigation skills are expected. Knowledge and navigation of these is critical to access all features and resources of this course. For technical assistance, review the Canvas Getting Started Guide for Students community.canvaslms.com/ or contact TLT, Knowledge Commons.
- Students are expected to participate in the IVC portion of class, which is done through Zoom, with audio and visual enabled. This expectation is there, because it improves learning and the classroom environment. If students need to turn off cameras and/or microphones, this is allowed. It is polite if you will be doing so for long periods to inform your instructor. Also note, even though microphones are enabled, they may be muted when not in use.
- During exams, students are required to both have audio and microphone and to enable it (students may be muted or asked to mute their microphone for portions of the assessments.) Students need to position the camera and/or themselves so that their head, hands and workspace is visible. Students are required to have a separate scanning device and continue to have their Zoom camera turned on while scanning; during the scanning phase, students may be gone from the screen for a few seconds if this is prearranged with their instructor.

Additional resources:

- **Tutoring center & computer lab-** There is free tutoring in the T. Benny Rushing Mathematics Student Center (room 155, the lower level between JWB and LCB), as well as a computer lab. For more information see www.math.utah.edu/undergrad/mathcenter.php
- **The learning center-** 3 free tutoring sessions, \$5 after that, learning consultations learningcenter.utah.edu/
- **Departmental videos-** 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 www.math.utah.edu/lectures/

General information: Here is information from the University about logistics in light of COVID-19. There is also information about financial assistance, counseling, the food pantry, and much more. coronavirus.utah.edu/#students

Equipment information:

- The UofU has a laptop and mobile hotspot loan program –laptops, mobile hotspots mailed to current U students on a first-come, first-served basis. You can find out more information about this through this link: union.utah.edu/covid-19/
- For technical assistance, review the Canvas Getting Started Guide for Students community.canvaslms.com/docs/D0C-10701and/ or contact TLT, Knowledge Commons, etc.
- The Marriott library is loaning laptops to students lib.utah.edu/coronavirus/checkout-equipment.php

Course expected learning outcomes (ELOs):

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.

Course design:

| Date | Topic/assignment/exam | Date | Topic/assignment/exam |
|-----------|-----------------------|-----------|-------------------------|
| Tu, 08/25 | Section 1.1 | Th, 10/15 | Section 3.5, exam 2 |
| Th, 08/27 | Section 1.2, homework | Tu, 10/20 | Section 3.6 |
| Tu, 09/1 | Sections 1.3-1.4 | Th, 10/22 | Section 3.7, homework |
| Th, 09/3 | Section 1.5, homework | Tu, 10/27 | Section 4.1 |
| Tu, 09/8 | Section 1.6 | Th, 10/29 | Section 4.2, homework |
| Th, 09/10 | Section 1.7, homework | Tu, 11/3 | Section 4.3 |
| Tu, 09/15 | Section 1.8 | Th, 11/5 | Section 4.4, homework |
| Th, 09/17 | Section 2.1, homework | Tu, 11/10 | Section 4.5 |
| Tu, 09/22 | Section 2.2 | Th, 11/12 | Section 4.6, exam 3 |
| Th, 09/24 | Section 2.3, exam 1 | Tu, 11/17 | Section 5.1 |
| Tu, 09/29 | Sections 2.4-2.5 | Th, 11/19 | Section 5.2, homework |
| Th, 10/1 | Section 3.1, homework | Tu, 11/24 | Section 5.3 |
| Tu, 10/6 | Section 3.2 | Tu, 12/1 | Section 5.4 |
| Th, 10/8 | Section 3.3, homework | Th, 12/3 | Section 5.5, homework |
| Tu, 10/13 | Section 3.4 | Wed, 12/9 | 3:30-5:30 pm Final exam |

Exams: They will be schedule in advance and proctor using Zoom; camera should show head, hands and workspace, they should have allowed material, but no more.

Homeworks: Homework will consist of questions assigned from the book. It is due Fridays. You will complete homework on your own paper, and then scan each section individually and upload it to Gradescope. Each section should be a SINGLE pdf, not multiple pdfs or other file types, there are free websites to convert to pdf, for instance www.ilovepdf.com/. Write the section that the HW is from on every page (so it is easy to tell if it's 1.2 or 1.3) Write the problems and their solutions neatly and

in order (or if out of order, make notes, so that problems are easy to find.) Make sure that the pages you upload are in order. For every problem, write a very SHORT summary of the problem you are answering,

- If you are solving an equation, write the equation.
- If you are doing a word-problem, write the key facts from the word problem.
- For a true/false or multiple choice question, write a short summary of the statement or question.

Look over your pdf file to make sure it is legible (writing is not too light or too fuzzy). There will be deductions if you do not follow the instructions above.

Gradescope: This website www.gradescope.com/ will be use to grade: homeworks, exams, final exam, etc. Make sure you have/create an account as soon as possible. You have to use the UMail address [u-number]@utah.edu. I will not allow other accounts. If you have problems creating an account, let me know.

Grading: The following are the grade components and the percentage each contributes to a student's final grade:

- Homework Assignments (20%)- Roughly two textbook sections are due most Fridays. The homework will typically cover material covered up to and including the preceding Monday. If you click on a homework assignment in the Assignments tab in Canvas, you will see the list of assigned problems, also they can be downloaded from the corresponding assignment in gradescope. Three of the problems will be selected for grading by the grader, each graded out of 5 points. There will also be 5 points given for completion. The lowest homework score will be dropped. Homework will only be accepted in Gradescope, it will have a deadline and late submissions will in general not be accepted.
- Quizzes (20%)- They will be on Tuesdays, and they will cover the lectures of that Tuesday and the Thursday before. The lowest two grades will be dropped.
- Midterm Exams (45%, 15% each)- Three 60-minute midterm exams will be given on select Thursdays, starting at 12:25 PM. They will be proctored using Zoom. Camera should show head, hands and workspace, they should have allowed material, but no more. A practice material will be posted a week prior to the midterm that will cover the same material. Dates of the midterm exams: exam 1, September 24; exam 2, October 15; exam 3, November 12.
- Final Exam (15%)- The Math 1090-90 final exam is a common final exam, which means all sections take it at the same time. For Fall 2020, the time is Wednesday, Dec 9, 3:30-5:30 pm. The final exam will be proctored in Zoom, in the same way exams were. Half of the exam will be new material. The other half of the exam will be based on specific topic from earlier in the course. Students will be informed ahead of time which sections will be emphasized on the final exam.

Late/missing assignment policy The course is designed to provide flexibility in the case of a few times. But in general, you are expected to turn things in on time and take quizzes and exams at the times givens. If there are extenuating circumstances, please contact me in a timely way to discuss alternatives. If the situation is one that can be documented, you may be asked to provide documentation. The University of Utah student code allows for making up quizzes or exams in advance for "officially sanctioned University Activities . . . , or government obligations, or religious obligations". Please contact

me at least one week in advance of any such obligations to arrange accommodation.

Grading errors: If you spot a grading error or have question about grading, please contact me within two weeks of the assignment being graded. Also, if the assignment was graded in Gradescope, use the Gradescope regrade request tool to contact me.

Official drop/withdraw dates: The last day to drop classes is Friday, September 4; the last day to withdraw from this class is Friday, October 16. Please check the academic calendar for more information pertaining to dropping and withdrawing from a course. Withdrawing from a course and other matters of registration are the student's responsibility.

Holidays: There will be no class on Monday, September 7 (Labor Day) and November 26-29 (Thanksgiving break).

Final grade: Final course letter grades will be determined as follows: If X is your course percentage weighted according to the above, then $\{X \geq 93\% \Rightarrow A, X \geq 90\% \Rightarrow A-, X \geq 87\% \Rightarrow B+, X \geq 83\% \Rightarrow B, X \geq 80\% \Rightarrow B-, X \geq 77\% \Rightarrow C+, X \geq 73\% \Rightarrow C, X \geq 70\% \Rightarrow C-, X \geq 67\% \Rightarrow D+, X \geq 63\% \Rightarrow D, X \geq 60\% \Rightarrow D-, X < 60\% \Rightarrow E\}$.

The instructor retains the right to modify this grading scheme during the course of the semester; students will, of course, be well notified of any adjustments.

The americans with disabilities act: 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, 162 Olpin Union Building, 801-581-5020. CDA will work with you and the instructor to make arrangements for accommodations. All written information in this course can be made available in alternative format with prior notification to the Center for Disability & Access.

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 on the basis of your sex, including sexual orientation or gender identity/expression, you are encouraged to report it to the University's Title IX Coordinator; Director, Office of Equal Opportunity and Affirmative Action, 135 Park Building, 801-581-8365, or to 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 police, contact the Department of Public Safety, 801-585-2677(COPS).

Campus safety: 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.

Inclusivity statement: It is my intent that students from all diverse backgrounds and perspectives be well served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength and benefit. It is my intent to present materials and activities that are respectful of diversity: age, color, disability,

gender, gender identity, gender expression, national origin, political affiliation, race, religion, sexual orientation, and veteran status, and other unique identities. Your suggestions are encouraged and appreciated. Please let me know ways to improve the effectiveness of the course for you personally or for other students or student groups. In addition, if any of our class meetings conflict with your religious events, please let me know so that we can make arrangements for you.

Discrimination and harassment: 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 Office of the Dean of Students, 270 Union Building, 801-581-7066. To report to the police, contact the Department of Public Safety, 801-585-2677(COPS). Please see Student Bill of Rights, section E regulations.utah.edu/academics/6-400.php. I will listen and believe you if someone is threatening you.

Names/pronouns. Canvas allows students to change the name that is displayed AND allows them to add their pronouns to their Canvas name. 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, which managed can be managed at any time). 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 or on assignments. Please advise me of any name or pronoun changes so I can help create a learning environment in which you, your name, and your pronoun are respected. If you need any assistance or support, please reach out to the LGBT Resource Center. lgbt.utah.edu/campus/faculty_resources.php

English language learners. If you are an English language learner, please be aware of several resources on campus that will support you with your language and writing development. These resources include: the Writing Center (writingcenter.utah.edu/); the Writing Program (writing-program.utah.edu/); the English Language Institute (continue.utah.edu/eli/). Please let me know if there is any additional support you would like to discuss for this class.

Undocumented student support: Immigration is a complex phenomenon with broad impact—those who are directly affected by it, as well as those who are indirectly affected by their relationships with family members, friends, and loved ones. If your immigration status presents obstacles to engaging in specific activities or fulfilling specific course criteria, confidential arrangements may be requested from the Dream Center. Arrangements with the Dream Center will not jeopardize your students tatus, your financial aid, or any other part of your residence. The Dream Center offers a wide range of resources to support undocumented students (with and without DACA) as well as students from mixed-status families. To learn more, please contact the Dream Center at 801.213.3697 or visit dream.utah.edu/.

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: veteranscenter.utah.edu/. Please also let me know if you need any additional support in this class for any reason.

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 wellness.utah.edu/ or 801-581-7776.

Student Success Advocates: The mission of Student Success Advocates is to support students in

making the most of their University of Utah experience (ssa.utah.edu/). They can assist with mentoring, resources, etc. Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to contact a Student Success Advocate for support (www.asuu.utah.edu/student-resources/).

University Counseling Center: The University Counseling Center (UCC) provides developmental, preventive, and therapeutic services and programs that promote the intellectual, emotional, cultural, and social development of University of Utah students. They advocate a philosophy of acceptance, compassion, and support for those they serve, as well as for each other. They aspire to respect cultural, individual and role differences as they continually work toward creating a safe and affirming climate for individuals of all ages, cultures, ethnicities, genders, gender identities, languages, mental and physical abilities, national origins, races, religions, sexual orientations, sizes and socioeconomic statuses.

Office of the Dean of Students: The Office of the Dean of Students is dedicated to being a resource to students through support, advocacy, involvement, and accountability. It serves as a support for students facing challenges to their success as students, and assists with the interpretation of University policy and regulations. Please consider reaching out to the Office of Dean of Students for any questions, issues and concerns. 200 South Central Campus Dr., Suite 270. Monday-Friday 8 am-5 pm. Their phone number is 801-582-7066.

Syllabus subject to change: This syllabus is meant to serve as an outline and guide for our course. Please note that I may modify it with reasonable notice to you. I may also modify the Course Schedule to accommodate the needs of our class. Any changes will be announced and posted on Canvas.