

COURSE DESCRIPTION AND INSTRUCTOR INFORMATION

Course Description:

- **Course Number and Title:** Math 1090-003, Business Algebra
- **Semester and Year:** Summer 2021
- **Course Overview:** Math 1090, Business Algebra, provides 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.
- **Meeting Days and Times:** Monday Wednesday and Friday, 10:00 am -12:15 pm.
Zoom link: <https://utah.zoom.us/j/92058313949>

Instructor Information:

- **Instructor:** Ruyi Ma (he/him/his)
- **Email:** rma@math.utah.edu
- **Zoom Office Hours:** Every Friday 2:00 pm to 3:00 pm or make an appointment.
Zoom link: <https://utah.zoom.us/j/95300125115>
- **Accessibility & Support:** Please ask questions in class, before or after class (at the same Zoom link), in office hours, in Canvas discussions or by e-mail or Canvas mail. I try to respond to e-mail the morning after it comes in, so if you write at noon on Monday, look for a response on Tuesday morning. I look over Canvas discussions and respond about 24-36 hours after a post is made; this encourages all members of our class to participate in discussions.

COURSE DETAILS & RESOURCES

- **Course Type: Interactive Video Conferencing (IVC)**
- **Prerequisite:** Starting in Summer 2021, the Math Department will not be using prerequisites to place students in math classes. Students are responsible for determining whether they are ready for the course they select. The former prerequisites for Math 1090 are listed below. These are still recommended as guidelines to determine if you have the background to be successful in this course (without a lot of additional work on your part):
 - C or better in Math980 (Beginning Algebra), Math1010(Intermediate Algebra) OR Math1030 (Quantitative Reasoning)
 - 240+ in Accuplacer AAF (The UofU provides one free Accuplacer exam to all students. <https://testingcenter.utah.edu/students/placement-tests/math-placement.php>)
 - 23+ in ACT Math
 - 570+ in SAT Math
 - Qualifying GPA 3.35
- **Course Materials:**
 - **Textbook:** Business Algebra, by Kelly MacArthur, 3rd edition. (ISBN: 9781524970420)
 - **Additional course materials:**
 - The university has recorded lectures for MATH 1090, available at <http://www.math.utah.edu/lectures/math1090.php>
 - These lecture videos can always be used as an additional resource in learning the course material, and may occasionally be used as part of class assignments.
- **Technical requirements:**
 - A scientific calculator is needed for some homework and exams. On exams, you are allowed to use a basic scientific calculator, so long as it does not have graphing or scientific formula functionality. You are not allowed to use a phone or computer calculator app. If you are uncertain whether your calculator meets requirements, ask me.
 - Because the class is IVC and exams will be given online, students are required to have access to the following equipment:
 - 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 (smartphones can be used as scanning devices)
 - a microphone (used for online meetings);
- Students are expected to be computer literate and Canvas and zoom navigation skills are expected. Knowledge and navigation of canvas and zoom is critical to access all features and resources of this course.
- Students are encouraged to participate in the IVC portion of class with camera turned on. Doing so improves learning and the classroom environment. Please mute microphone when not in use.
- During quizzes and exams, students are required to have a camera that is turned on. 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.
- 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.
- **Attendance & Punctuality:**

Students are expected to attend the synchronous online class meetings as much as possible. Classes will be recorded, but the class is designed with active participation in mind and students benefit most when present. There will be something to turn in at each class (a survey, a quiz or an exam). You must be present in Zoom to participate in these assessments. Submitting such an assessment, but not being present in class, will be considered academic misconduct. A number of quizzes will be dropped to accommodate unavoidable circumstances/absences that may arise during the semester (see the Assessment and Grading portion of the syllabus for these details).
- **Video Recording of Classes:**
 - Classes will be recorded and link posted in Canvas. The links are good for 30 days. You are allowed to download classes (note the files are huge) and save them to have access to them after 30 days. If you are the first to arrive at class OR you speak during class, you will appear in the videos. (If you do not wish to appear, then don't come early and do not speak.)
- **UofU Learning Support:**
 - Math Center Online Tutoring, (Paid for by Your Student Fees)
<https://www.math.utah.edu/undergraduate/mathcenter.php>
 - The Learning Center, 3 free tutoring sessions, \$5 after that, learning consultations
<https://learningcenter.utah.edu/>
 - Student Success Advocates <https://ssa.utah.edu>
- **General Help:**
 - 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. <https://coronavirus.utah.edu/#students>
- **Equipment Help**
 - 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: <https://union.utah.edu/covid-19/>
 - For technical assistance, review the [Canvas Getting Started Guide for Students](https://community.canvaslms.com/docs/DOC-10701) <https://community.canvaslms.com/docs/DOC-10701> and/or contact TLT, Knowledge Commons, etc.
- **COVID-19 Considerations:** The University of Utah requires that students self-report if they test positive for COVID-19 via coronavirus.utah.edu. Please also contact me (your instructor) to discuss whether accommodations are needed.

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

- **Lectures:** Classes will combine lecture with time to discuss and practice material. Active Participation is encouraged. Up to 10 points will be given for participation.
- **Homework Assignments:** Homework will be assigned from the textbook and submitted in Canvas. Each assignment should be one single pdf file. Assignments will be due on 07/06, 07/13, 07/20, 07/27, 08/03 (every Tuesday) midnight 11:59 pm. The lowest score will be dropped at the end of the semester. This means only four assignments will be counted, each assignment worth 5% for your final grade, 20% in total.
- **Quizzes:** Three quizzes will be given on 07/02, 07/16 and 07/30 (Week 1, 3 and 5 Friday). They will be given in class and a set amount of time, generally 30 minutes, will be given. You are required to write your quizzes on a provided template (which you can print or hand copy). You will be allowed to use your notes, previous homework assignments, textbook, and a calculator to complete them. You may not use the Internet. The lowest quiz grades will be dropped. For each quiz, it worth 10% for your final grade, 20% in total.
- **Exams and Final Exam:** There will be three exams: Exam 1, Exam 2 and the Final Exam.
 - Exams will be given during class time and you must be logged into Zoom when taking and submitting the exam. The exams will be split into two blocks, each for 30 minutes.
 - You are required to write your exams on a provided template. You can print or hand copy the template.
 - You can bring a single 8x11 in. piece of paper, front and back, with any notes, formulas, etc. that you would like to use on the exam. You can use a hand-held scientific calculator (see description above). You are not allowed to collaborate with others or Internet resources on the exam. Doing so is academic misconduct and you may get a 0 on the exam or in the course for doing so.
 - Exam questions will be similar in format to homework and quiz questions, therefore reviewing previous assignments and quizzes is a useful way of preparing for exams.
 - Review material will be posted on Canvas the week before each exam.
 - A portion of the class before each exam will be dedicated to reviewing the material. Exam review zoom sessions will be offered outside of class

CLASS SCHEDULE & IMPORTANT DATES

Weekly Deadlines:

Homework – due on 07/06, 07/13, 07/20, 07/27, 08/03 at 11:59 pm

Quizzes and exams – due in class

Important Dates:

Classes begin: Monday, June 28

Quiz 1: Friday, July 2

Exam 1: Friday, July 9

Quiz 2: Friday, July 16

Exam 2: Wednesday, July 21

Quiz 3: Friday, July 30

Classes end: Wednesday, August 4

Final Exam: Thursday, August 5, 10:00 am - 12:00 pm

Week	Monday	Wednesday	Friday
1	Intro, 1.1, 1.2	1.3, 1.4, 1.5	1.6, 1.7
2	Holiday	1.8, 2.1, 2.2	Exam 1, 2.3
3	2.4, 2.5	3.1, 3.2, 3.3	3.4, 3.6
4	3.6, 3.7, 4.1	Exam 2, 4.2	Holiday
5	4.3, 4.4	4.5, 4.6	5.1, 5.2
6	5.3, 5.4	5.5, review	

ASSESSMENTS, GRADING, LATE POLICY, GRADES

Assignment Category	Contribution to Grade	Adjustments (dropped at the end of the semester)
Homework	20%	Lowest 1
Quizzes	20%	Lowest 1
Exam 1	20%	
Exam 2	20%	
Final Exam	20%	

The grade scale is:

A [93-100),
A- [90-93),
B+ [87-90),
B [83-87),

B- [80-83),
C+ [77-80),
C [73-77),
C- [70-73),

D+ [67-70),
D [63-67),
D- [60-63),
E [0-60).

If a grade is recorded incorrectly, it is the student's responsibility to let the instructor know in a timely manner (at the latest within 2 weeks of when the grade was recorded.)

Late/Makeup Work:

Late homework, make up quizzes and exams will not be accepted.

Credit/No Credit Option:

- If you are taking Math 1090 to meet a major or minor requirement, then you should opt for a letter grade, rather than credit/no credit (CR/NC).
- If you are taking Math 1090 as a prerequisite, it is easiest if you opt for a letter grade. You need a C or better to enroll in Math 1100 (Business Calculus). But if you choose to take Math 1090 CR/NC, when you want to enroll in the subsequent class, you will need to request a permission code. The permission code team will look up whether the underlying grade meets the requirements.
- This is the official University description of the credit/no credit option: "The credit/no credit (CR/NC) option allows a student to enroll in selected courses outside of his/her academic plan, without the pressure of competing for a letter grade. By electing CR/NC, students are expected to complete the same work as students enrolled for letter grades." If you are interested in credit/no credit, consult the following:
 - University guidelines: <https://catalog.utah.edu/#/policy/B12v3LX0G?bc=true&bcCurrent=Grading%20Poli>
 - Dates for Choosing CR/NC <https://registrar.utah.edu/academic-calendars/spring2021.php>
 - Consider speaking with an academic advisor to determine whether this is a good option.

Incompletes: According to university policy, to be considered for an incomplete, a student must have 20% or less of the course work remaining and be passing the course with a C or better. You must request an incomplete grade and I will consider giving that grade only under exceptional circumstances.

COMMUNICATION

- All course materials, such as lecture slides, assignments, solutions, grades, etc. will be posted on the Course Canvas site.
- Class announcements will be done via email through the Canvas server and in the Canvas announcements page. You will be responsible for any information contained in them as well as the information announced in class. Students are also strongly advised to set up notifications for canvas so they do not miss any important notifications.

- It is your responsibility to also regularly check your Umail (make sure you set up forwarding if you do not check it regularly), your Umail is the only way for me to communicate privately with you, there will be occasions during the semester that we may need to reach out to you individually (e.g. regarding a grade or assignment) and it is in your best interest to respond promptly.
- Feel free to contact me by email for questions, I will do my best to answer emails within 24 hours. I would like to encourage you to email me only if it is something personal that requires individual attention, if instead you have questions about logistics of the class, course material and assignments, and anything else your classmates may wonder as well, please post a question on the Discussions Board instead. This way the information is shared quickly to the entire class, and each of you can benefit from seeing other classmates' questions.

ACADEMIC CODE OF CONDUCT

Students are encouraged to review the Student Code for the University of Utah: <https://regulations.utah.edu/academics/6-400.php>. In order to ensure that the highest standards of academic conduct are promoted and supported at the University, students must adhere to generally accepted standards of academic honesty, including but not limited to refraining from cheating, plagiarizing, research misconduct, misrepresenting one's work, and/or inappropriately collaborating. A student who engages in academic misconduct as defined in Part I.B. may be subject to academic sanctions including but not limited to a grade reduction, failing grade, probation, suspension or dismissal from the program or the University, or revocation of the student's degree or certificate. Sanctions may also include community service, a written reprimand, and/or a written statement of misconduct that can be put into an appropriate record maintained for purposes of the profession or discipline for which the student is preparing.

ADDITIONAL POLICIES AND RESOURCES

Plagiarism and Academic Integrity: Academic integrity means that scholars, including students, conduct their work ethically. This includes taking credit only for work they themselves perform. Violations of academic integrity undermine the principle of fairness, devalue your degree, and leave you underprepared for applying what you have been taught. In this way, it defrauds you, your classmates, the university, and the people you will serve with your education after graduation. It includes cheating on tests and other assessments, collaborating on projects when not permitted to, presenting other people's work as yours (whether they agree to that), and more.

Plagiarism is a serious offense against academic integrity that could result in failure for the test or paper, failure for the course, and expulsion from the university. Plagiarism usually involves passing off the work, words, or ideas of others as your own without giving proper credit.

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. gender, sexuality, disability, age, socioeconomic status, ethnicity, race, culture, 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 <http://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. https://lgbt.utah.edu/campus/faculty_resources.php

Privacy Policy. FERPA, the federal law that guards student privacy, prohibits me from discussing your performance in this class with anyone except you without your permission, which must be on file with the university, not simply told to me. To ensure compliance with this law, send e-mail with a university e-mail address or via Canvas mail.

Out of respect for the privacy of your classmates, do not record or screenshot any part of this class for use outside of this class, even if you omit identifying information about the speaker or poster. You may not circulate or share images, clips, or other course materials with individuals who are not enrolled in this class. Doing so is a serious violation of our class ethical code and will result in a charge of academic misconduct.

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 (<http://writingcenter.utah.edu/>); the Writing Program (<http://writing-program.utah.edu/>); the English Language Institute (<http://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 student status, 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: <http://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 www.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 (<https://asuu.utah.edu/displaced-students>).

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, veteran's 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

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. More information about the counseling center, including ways to contact them, can be found here: <https://counselingcenter.utah.edu/>.

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 in class and posted on Canvas.