Goals
To provide a background of algebra topics important in future business classes, such as 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. Math 1090 satisfies the University’s QA requirement.

Specific expected learning outcomes are: 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. 10. Compute an amortization schedule and loan payments, such as automobile or mortgage payments.

Text

Prerequisites
Starting Summer 2021, the Math Department will not be using prerequisites to place students; students are responsible for determining whether they are ready for the course that they select. The former prerequisites, below, may help you determine if you have the background to be successful in this course:

A grade of C or better in Math 980 (Beginning Algebra), OR Math 1010 (Intermediate Algebra) OR Math 1030 (Quantitative Reasoning), OR 23+ in ACT Math, OR 570+ in SAT Math, OR GPA 3.35+, OR 240+ in Accuplacer AAF https://testingcenter.utah.edu/students/placement-tests/math-placement.php.

Calculator
A scientific calculator may be needed for homework, quiz, and exam problems. On quizzes and exams, you are allowed a basic scientific calculator, so long as it does not have graphing or programming functionality. You are not allowed to use a phone or computer calculator on quizzes or exams.

Quizzes
Unless announced otherwise, there will be a 30 minute quiz in class every Thursday. The lowest three quiz scores will be dropped to make reasonable accommodations for sickness, family emergencies, etc. No make-ups will given for missed quizzes.

Homework
Homework problems will be assigned regularly; these will not be collected or graded, but are the best preparation for the weekly quizzes.

Exams
There will be two exams during regular class hours, and a comprehensive final exam. There are no make-up exams, though the final exam score may replace a midterm missed due to personal or family emergencies.

Grades
The quizzes and exams are weighted as follows:

<table>
<thead>
<tr>
<th>Type</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quizzes</td>
<td>30 %</td>
</tr>
<tr>
<td>Exam 1</td>
<td>20 %</td>
</tr>
<tr>
<td>Exam 2</td>
<td>20 %</td>
</tr>
<tr>
<td>Final exam</td>
<td>30 %</td>
</tr>
</tbody>
</table>

Letter grades for the course will be assigned roughly as follows:


Other dates
Last day to drop (delete) classes: Friday, September 2; last day to withdraw from classes: Friday, October 21.
Information, policies, and resources

**Tutoring:** Free Math tutoring is available in the T. Benny Rushing Mathematics Center, adjacent to LCB and JWB. [https://www.math.utah.edu/undergraduate/mathcenter.php](https://www.math.utah.edu/undergraduate/mathcenter.php).

**Covid-19:** The COVID-19 guidelines for the University of Utah are adapted often due to the ever-changing status of the pandemic. For the most up-to-date information regarding the campus guidelines, visit [https://coronavirus.utah.edu](https://coronavirus.utah.edu).

**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, [https://disability.utah.edu](https://disability.utah.edu). 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 in the Office of Equal Opportunity and Affirmative Action, 135 Park Building, (801) 581-8365, [https://oeo.utah.edu/contact-us/index.php](https://oeo.utah.edu/contact-us/index.php), or to the Office of the Dean of Students (below). For support and confidential consultation, contact the Center for Student Wellness, 426 Student Services Building, (801) 581-7776. To report to police, contact the Department of Public Safety, (801) 585-2677 (COPS), [https://police.utah.edu](https://police.utah.edu).

**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) 585-2677 (COPS). 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 [https://safeu.utah.edu](https://safeu.utah.edu).

**University Counseling Center:** The UCC staff is committed to supporting the mental health needs of our campus community: (801) 581-6826. For after-hours emergencies, contact the 24/7 Crisis Line: (801) 587-3000. More information is at [https://counselingcenter.utah.edu](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. Contact: (801) 581-7066, deanofstudents@utah.edu, [https://deanofstudents.utah.edu](https://deanofstudents.utah.edu).

**Academic Code of Conduct:** Please review the Student Code: [https://regulations.utah.edu/academics/6-400.php](https://regulations.utah.edu/academics/6-400.php). 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 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.

**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; this can be managed online by you at any time. I will refer to you with the name and the pronoun that you prefer, in class or on assignments: please advise me of any changes or preferences. For assistance or support, please reach out to the LGBT Resource Center, [https://lgbt.utah.edu](https://lgbt.utah.edu).

**Diversity and Inclusivity:** 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: gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture. Your suggestions are encouraged and appreciated. Please let me know ways to improve the effectiveness of the course for you personally, or for others. In addition, if any of our class meetings conflict with your religious events, please let me know so that I can make alternative arrangements for you.

Now that you have made it this far: this syllabus subject to change! We may make changes to adapt to circumstances, or to better accommodate the needs of our class. Any such changes will be announced in class and also posted on Canvas.