

Syllabus: Math 1090-003

Spring 2025

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GENERAL INFORMATION

Course Description:

- **Course Number and Title:** Math 1090-003
- **Semester and Year:** Spring 2025
- **Course Overview:** 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:** In-person classes, location: JWB 308
- **Meeting Days and Times:** Tuesday and Thursday, 6 pm to 7:30 pm

Instructor Information:

- **Instructor:** Carlos Ospina
- **Email:** ospina@math.utah.edu
- **Accessibility & Support:** I want to provide lots of opportunities for you to talk about math or talk with me. I try to come to class 5-10 minutes early, so there is time to ask about HW and past material. Some days I can stay after too. Please also ask questions in class. Outside of class, I encourage you to post questions, especially about HW, and responses in online Canvas Discussions. I look them over almost daily, but wait 24-36 hours after a post is made hours to respond to encourages all members of our class to participate. You are also welcome to e-mail me or contact me through Canvas mail. I try to respond to messages in the early morning, the morning after they come in.
- **Office Hours:** Tuesday and Thursday, 4 pm to 5 pm in JWB 221, or by appointment

Learning Assistant (LA)

The larger sections of Math 1090 will have Learning Assistants (LAs). LAs are undergrad students who are here to support you as you take this course. LAs facilitate discussions in class and in HW workshops. You can talk with them about learning, study strategies, and life. Our LA(s) don't provide tutoring (though they will certainly contribute in discussions), but they can help you navigate all the resources at the University

These LAs will provide workshops (outside of class time) to all 1090 students! More information about the LAs and the workshop times will be provided in Canvas.

Course Coordinator: Rebecca Noonan Heale (Associate Professor, Lecturer), rebecca@math.utah.edu

The course coordinator supports all Math 1090 instructors. If you have concerns about your Math 1090 instructor or course, contact the course coordinator.

COURSE DETAILS

- **Prerequisite:** The Math Department will be using prerequisites to place students into Math classes starting Fall 2024. However, this semester, students are responsible for determining whether they are ready for the course they select. The easiest way to check if you are ready for this class is to take the ALEKS placement (it will also be an assignment in Week 1). There is a link to do so here: <https://www.math.utah.edu/undergraduate/placement.php>
It is recommended that a student entering this class should have a placement score of 46 or higher. For comparison, alternate prerequisites for Math 1090 are listed below:
 - C or better in Math 980 (Beginning Algebra), Math 1010(Intermediate Algebra)
 - 23+ in ACT Math
 - 570+ in SAT Math
- **Course Materials:**

Textbook: Business Algebra, 3rd edition, published by Kendall Hunt, (ISBN: 9781524993405). Cost: approximately \$62 for E-book (4-month access). Print version of the text available at the bookstore. The textbook is used to supplement classes and for review materials before the two exams and the final.

We are using the Inclusive Access Program to obtain the textbook. A link to the textbook will be made through Canvas. Students are automatically billed for the textbook this with their tuition. See email from the bookstore. Note: you need to access the materials in the textbook, but do not need to own the textbook. There are copies available for short term loan at the Marriott Library and at the Math Tutoring Center. If you plan to borrow the book or have access in a different way, then you can OPT OUT of buying the textbook, via the "Bookshelf" tab on Canvas. This must be done in the first two weeks of the semester.

Course Note Packet: This fill-in-the-blank packet will be used in each class helping you structure your notes for the class and spend more time in class thinking about ideas and less time copying down problems. Materials will be provided for the first four sections (first week), so you will need to have a copy of this packet by Week 2. It can be printed out, or downloaded and used on a tablet.

Online HW: The course uses Online Homework through a system called IMathAs. This homework is free to students and can be accessed on Canvas.

Scientific Calculator: A scientific calculator is needed for many assignments, including quizzes and exams. Graphing, financial, and phone-based calculators are not allowed on exams. Here is a list of approved calculators: https://www.math.utah.edu/_resources/documents/textbooks/math1090approvedcalculators.pdf. If you have a scientific calculator is not on the list, see your instructor about whether it can be approved.

Additional course materials:

- The course website is in Canvas.
- 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. They will also be posted in Canvas.
- We use the online site, Gradescope, for grading and giving feedback no exams. There is a link in Canvas to Gradescope. You may be asked to submit some assignments directly to Gradescope.

▪ **Technical requirements:**

- Access to the Internet – to access HW and course materials
- A scanning device – to turn in some assignments

▪ **UofU Learning Support:**

- Math Center Online Tutoring, free drop-in in-person and online tutoring <https://www.math.utah.edu/undergraduate/mathcenter.php>
- UONLINE eTutoring, free drop-in online tutoring: <https://online.utah.edu/student-resources/etutoring/index.php>
- The Learning Center, scheduled 1-hour free tutoring sessions, <https://learningcenter.utah.edu>
- Student Success Advocates <https://ssa.utah.edu>

▪ **Equipment Help**

- The UofU has a laptop and mobile hotspot loan program – laptops, mobile hotspots are available to current U students on a first-come, first-served basis. You can find out more information about this through this link: <https://www.lib.utah.edu/services/knowledge-commons/checkout-equipment.php>

- For technical assistance, review the *Canvas Student Guide* found at <https://community.canvaslms.com/docs/DOC-10701> and/or contact TLT, Knowledge Commons, etc.

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, present and future value annuities, and loan situations; answer questions about these situations using formulas and additional reasoning.

COURSE DESIGN

- **Lectures:** Classes will combine lecture with time to discuss and practice material. Active Participation is encouraged.
- **Workshops with LAs:** There will be multiply 50-minute workshops hosted by LAs each week. During these workshops, students will practice problem-solving, do a short student-skills activity, and have time for questions and working on HW. Participation will count toward an exam bonus. (See Exams) Times and location info will be given in Canvas.
- **Homework:** Homework is done online through Canvas. (We use the IMathAs platform.) There will be 2 to 3 HW assignments most weeks, or about 30 in total. HW is due Tuesday and Friday. Students are encouraged to start HW promptly, seek help when stuck, and work together when doing homework (in such a way that all are learning the mathematics.)
 - **Early HW Bonus:** Students who complete 50% of a HW assignment 1 day before the due date will earn a 5% bonus on that assignment. (This will be awarded around the time of each exam)
 - **Late HW Option:** Students may submit HW late for 80% credit.
- **Quizzes:** There will be quizzes every three days. They will be given in class. The lowest 2 quiz grades will be dropped.
- **Check-ins:** There will be a check-in survey at the end of class on days when there are not quizzes or exams. You must attend class to take the check-in. At the end of the semester, 25% of the check-in grades will be dropped
- **Two midterm exams.** See dates below. Review Material will be provided in class. You may/should prepare 1 sheet of notes (hand-written; can write on both sides) to use during the exam. You should also have a scientific calculator. No other materials are allowed during the exam.
 - **Pre-Exam Bonus:** Students can earn a 1% bonus on each midterm exam for participating actively at an LA-led workshop or Instructor Office Hours in the weeks preceding the exam. Students can earn up to 4% by participating at these opportunities
 - **Post-Exam Bonus:** There will be a learning reflection assignment following each exam which will also contribute a small amount to the exam score (usually 2%)

Final Exam: The Math 1090 final exam covers material not on previous exams and selected topics from earlier in the course. All topics will be announced at least 2 week before the final exam. The procedures will be similar to the midterm exams.

The Math 1090 final exam is a common exam, which means all 1090 sections take the exam at the same date and time, which is set by the University (see information below). You should arrange your schedule at the start of the semester to take the final at this time. Exceptions will be made if you are taking a different final at the same time or for extreme circumstances. You may also choose to take the final early for your own convenience, but there will be a 15 % penalty for doing so. If you do not take the final, you will get a grade of "E" in the class.

CLASS SCHEDULE & IMPORTANT DATES

Tentative Schedule of Topics, Quiz, and Exam dates – to be adjusted as necessary

Spring 2025

Week/Date	Sections Covered MW	Sections Covered TH	Exams, Quizzes
1 (1/6 - 1/12)	1.1, 1.2, 1.3	1.1, 1.2, 1.3	
2 (1/13 – 1/19)	1.3, 1.4, 1.5, 1.6	1.3, 1.4, 1.5, 1.6	
3 (1/20 - 1/26) Mon – MLK Day	1.6,1.7	1.6, 1.7, 1.8	
4 (1/27 – 2/2)	1.8,2.1,2.2	2.1, 2.2, 2.3	
5 (2/3 – 2/19)	2.3,3.1	2.3, 3.1	
6 (2/10 – 2/16)	Review and Exam 1	Review and Exam 1	Exam 1 Thurs 2/13
7 (2/17 – 2/23) Mon – Pres Day	3.2-3.3	3.2,3.3	
8 (2/24 – 3/2)	3.4, 3.6, 3.4b	3.4, 3.6, 3.4b	
9 (3/3-3/10)			
BREAK (3/9 – 3/16)	3.7-4.2	3.7, 4.1,4.2	
10 (3/17 – 3/23)	4.3-4.5	4.3, 4.4, 4.5	
11 (3/24 – 3/30)	Review, Exam 2	Review, Exam 2	Exam 2 Thurs 3/27
12 (3/31 – 4/6)	4.6, 5.1	4.6, 5.1	
13 (4/7 – 4/13)	5.2-5.3	5.2-5.3	
14 (4/14 -4/20)	5.4-5.5	5.4-5.5	
15 (4/20 – 4/23) Wed 4/23 – Reading Day	Review	Review	
Common Final Exam: Wed 4/30, 3:30-5:30 pm			

Weekly Deadlines:

- Homework – due Tuesday and Friday at 11:59 pm
- Quizzes – due in class, every three classes
- Check-ins – due in class most days

Additional Important Dates:

Classes begin: Monday January 6th

Last day to add without a permission code/wait list: Friday, January 10th

Last day to add or drop classes: Friday, January 17th

Last Day to Withdraw from Classes, Friday, February 28th

GRADING & ASSIGNMENT POLICIES

Assignment Category	Contribution to Grade	Adjustments (dropped at the end of the semester)
Homework	19%	Lowest 3
Quizzes	19%	Lowest 2
Check-Ins	2%	Lowest 25%
Exam 1	20%	
Exam 2	20%	
Final Exam	20%	Required. You need to take the final to get a grade of D- or higher.

Grading Scale:

A [93-100),	B- [80-83),	D+ [67-70),
A- [90-93),	C+ [77-80),	D [60-67),
B+ [87-90),	C [73-77),	D- [55-60),
B [83-87),	C- [70-73),	E [0-55).

Students who do not take the final exam earn an E in the class.

Regrading Policy: 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:

Things will happen. Your internet will turn off right before a deadline. You will need to work late and forget to submit. You may get sick. If you miss a quiz, instead of having make-ups or extensions, a certain number of quizzes will be dropped at the end of the semester. These are for the emergencies (including the very serious ones).

The course is designed to provide flexibility if other ways as well. You have the option to turn in HW late for 80% credit. But in general, you are expected to turn things in on time and take quizzes and exams at the times given. 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 events.

Extreme Situations:

If you have an extraordinarily severe situation, contact me, your instructor. We can discuss adjustments to the above policies.

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).
- 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.

ACADEMIC MISCONDUCT

It is expected that students comply with University of Utah policies regarding academic honesty, including but not limited to refraining from cheating, plagiarizing, misrepresenting one's work, and/or inappropriately collaborating. This includes the use of generative artificial intelligence (AI) tools without citation, documentation, or authorization. Students are expected to adhere to the prescribed professional and ethical standards of the profession/discipline for which they are preparing. Any student who engages in academic dishonesty or who violates the professional and ethical standards for their profession/discipline may be subject to academic sanctions as per the University of Utah's Student Code: [Policy 6-410: Student Academic Performance, Academic Conduct, and Professional and Ethical Conduct](#).

Plagiarism and cheating are serious offenses and may be punished by failure on an individual assignment, and/or failure in the course. Academic misconduct, according to the University of Utah Student Code:

"...Includes, but is not limited to, cheating, misrepresenting one's work, inappropriately collaborating, plagiarism, and fabrication or falsification of information...It also includes facilitating academic misconduct by intentionally helping or attempting to help another to commit an act of academic misconduct."

For details on plagiarism and other important course conduct issues, see the U's [Code of Student Rights and Responsibilities](#).

ADDITIONAL POLICIES AND RESOURCES

Student Etiquette. Respectful participation in all aspects of the course will make our time together productive and engaging. Q Meetings, Office Hours, Discussion threads, emails, Canvas and assignments and are all considered equivalent to classrooms and student behavior within those environments shall conform to the student code.

Emails. When emailing your Instructor and Teaching Team keep a professional tone (e.g. Use a descriptive subject line, avoid "Hey" and begin the e-mail with Dear INSERT NAME HERE or Dear Instructor INSERT NAME HERE.. Sign your message with your name and return email address. Please consult this page for tips on how to write appropriate professional emails: <https://academicpositions.com/career-advice/how-to-email-a-professor>

Americans With Disabilities Act (ADA)

The University of Utah seeks to provide equal access to its programs, services, and activities for people with disabilities. All written information in this course can be made available in an alternative format with prior notification to the [Center for Disability & Access](#) (CDA). CDA will work with you and the instructor to make arrangements for accommodations. Prior notice is appreciated. To read the full accommodations policy for the University of Utah, please see Section Q of the [Instruction & Evaluation regulations](#).

In compliance with ADA requirements, some students may need to record course content. Any recordings of course content are for personal use only, should not be shared, and should never be made publicly available. In addition, recordings must be destroyed at the conclusion of the course. If you will need accommodations in this class, or for more information about what support they provide, contact:

Center for Disability & Access

801-581-5020
disability.utah.edu

162 Union Building
200 S. Central Campus Dr.
Salt Lake City, UT 84112

Safety at the U The University of Utah values the safety of all campus community members. You will receive important emergency alerts and safety messages regarding campus safety via text message. For more safety information and to view available training resources, including helpful videos, visit safeu.utah.edu.
To report suspicious activity or to request a courtesy escort, contact:

Campus Police & Department of Public Safety
801-585-COPS (801-585-2677)
dps.utah.edu
1735 E. S. Campus Dr.
Salt Lake City, UT 84112

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, you are encouraged to report it to university officials:

Title IX Coordinator & Office of Equal Opportunity
and Affirmative Action
801-581-8365
oeo.utah.edu
135 Park Building
201 Presidents' Cir.
Salt Lake City, UT 84112

Office of the Dean of Students
801-581-7066
deanofstudents.utah.edu
270 Union Building
200 S. Central Campus Dr.
Salt Lake City, UT 84112

To file a police report, contact: Campus Police & Department of Public Safety

801-585-COPS (801-585-2677)
dps.utah.edu
1735 E. S. Campus Dr.
Salt Lake City, UT 84112

If you do not feel comfortable reporting to authorities, the U's Victim-Survivor Advocates provide free, confidential, and trauma-informed support services to students, faculty, and staff who have experienced interpersonal violence.

To privately explore options and resources available to you with an advocate, contact:

Center for Student Wellness
801-581-7776
wellness.utah.edu
328 Student Services Building
201 S. 1460 E.
Salt Lake City, UT 84112

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.

Student Wellness. Your personal health and wellness are essential to your success as a student. Personal concerns like stress, anxiety, relationship difficulties, depression, or cross-cultural differences can interfere with a student's ability to succeed and thrive in this course and at the University of Utah. Please feel welcome to reach out to your instructor to handle issues regarding your coursework.

For helpful resources to manage your personal wellness and counseling options, contact the Center for Student Wellness (see contact information above) or Counseling Services:

Counseling Services

801-581-6826
counselingcenter.utah.edu
Student Services Building
201 South 1460 East, Rm 426
Salt Lake City, UT 84112

Student Support at the U. Your success at the University of Utah is important to all of us here. If you feel like you need extra support in academics, overcoming personal difficulties, or finding community, the U is here for you. Please refer to the [Student Support Services page for the U](#) for updated information

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. To contact the Office of the Dean of Students, please email deanofstudents@utah.edu or call 801-581-7066. There is more information at <https://deanofstudents.utah.edu/>.

Basic Needs Student Support Statement. Success at The University of Utah includes learning about and using available resources. The [Basic Needs Collective](#) (BNC) is a coordinated resource referral hub. They educate about and connect students to campus and community resources to help them meet their basic needs. As a central location for resource referrals related to food, housing, health insurance, managing finances, legal services, mental health, etc., any student experiencing difficulty with basic needs is encouraged to contact them. Drop into their office located in the Union basement or schedule with them online for an in-person or virtual visit through their webpage: <https://basicneeds.utah.edu/>.

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.

Student Support at the U. Your success at the University of Utah is important to all of us here! If you feel like you need extra support in academics, overcoming personal difficulties, or finding community, the U is here for you. Please refer to the [Student Support Services page for the U](#) for updated information.

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