

# Mathematics 1090-005

Spring, 2020

- Instructor:** Chinmay Koparkar
- Class Time and Place:** 11:50AM-1:10PM  
Mondays and Wednesdays  
in CSC 10-12
- Office Hours:** Wednesday 1:00PM-2:00PM, Fridays 1:00PM-2:00PM  
or by appointment.
- Office Location:** JWB 121
- E-mail address:** koparkar@math.utah.edu
- Class Web Page:** www.math.utah.edu/~koparkar
- Text:** *Business Algebra*, 3rd edition, published by Kendall Hunt,  
(ISBN: 9781524993405)  
Book Purchasing Instructions:  
<http://www.math.utah.edu/schedule/bookInfo/Math1090BookInfo.pdf>
- Course Information:** Math1090, College Algebra for Business and Social Sciences is a 3-credit semester course.
- Prerequisite:** At least a C grade in Math980 (Beginning Algebra), Math1010 (Intermediate Algebra) OR Math1030 (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.
- Course Description:** 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.
- Expected Learning Outcomes:**  
Upon successful completion of this course, a student should be able to:
- 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.

**Tutoring Lab:** T. Benny Rushing Mathematics Student Center (adjacent to JWB and LCB), Room 155  
M - Th 8 a.m. - 8 p.m.  
F 8 a.m. - 6 p.m.  
(opens Wednesday) (closed Saturdays, Sundays and holidays)  
They are also offering group tutoring sessions. If you're interested, inquire at the Tutoring Lab. <http://www.math.utah.edu/ugrad/tutoring.html>

**Private Tutoring:** University Tutoring Services, 330 SSB  
(they offer inexpensive tutoring). There is also a list of tutors at the Math Department office in JWB233.

**Computer Lab:** Also in the T. Benny Rushing Mathematics Student Center, Room 155C.  
M - Th 8 a.m. - 8 p.m.  
F 8 a.m.- 6 p.m.  
Link to computer lab is <http://www.math.utah.edu/ugrad/lab.html>

**Grading:** The grades will be calculated as follows:  
Homework 20%  
Quizzes 15%  
Midterm 15%  
Midterm 20%  
Final Exam 30%

Note: There will be 2 midterms. Your lower midterm score will count for 15% of your grade and your higher midterm score will count for 20% of your final grade.

**Homework:** I will collect homework on Mondays of each week. All of the homework assigned from sections covered in the previous week is due at that time.

- The grader will grade a few problems on each homework set. We will not tell you ahead of time which problems will be graded.
- The homework is to be turned in according to the following instructions:
- **The homework set MUST be stapled.**  
A homework set turned in without being stapled together or without a cover sheet will not be counted! Please do not come to class hoping that I or someone else will have a stapler. Be prepared when you arrive.
- **I will accept 2 late homeworks, up to two weeks late, throughout the semester for full credit.** I will not accept homework more than two weeks late. I accept these late homework sections to allow for illness, oversleeping,

hectic schedules, etc. Do not ask for special favors with regard to the homework policy, unless the circumstances are extraordinarily severe, because my response will not be in your favor. Also, it is not necessary nor recommended that you tell me why your homework is late. This policy is meant to be flexible enough to cover all reasons.

- **I only collect homework on Mondays.** If you need to turn in homework late, you will have to do so on a Monday in class (within two weeks from its due date). This is the only time and location that I will accept homework.
- **I will not accept electronic copies of homework.**

**You are responsible for knowing these policies.**

**Weekly Quizzes:** There will be weekly in-class quizzes, every Wednesday, except for test weeks. I reserve the right to start the quiz at any time during the Wednesday class period. The quiz will cover the material covered in the previous week. Quiz questions will be taken from textbook examples, class examples, assigned problems or problems very much like those problems. All quizzes will be group quizzes and I'll assign the groups in Canvas. There will be no make-up quizzes. No exceptions. If you're late to class or miss class and thus miss the quiz for any reason whatsoever, you will have to use that as one of your dropped quiz scores. There will be roughly 13 or 14 quizzes throughout the semester.

**Your lowest three quiz scores will be dropped.**

**Midterms:** There will be two midterm exams as mentioned above. Their dates and time are:  
1) **Wednesday, 12<sup>th</sup> February from 11:50AM-1:10PM**  
2) **Wednesday, 1<sup>st</sup> April from 11:50AM-1:10PM**  
The exams will be in our usual classroom.

**Final Exam:** The final exam for this class is comprehensive and will occur during the regularly scheduled final exam time, given by the University. For **Spring 2020**, the final exam is scheduled on **Wednesday, 29<sup>th</sup> April, from 3:30PM-5:45PM**. Please put this date in your calendar now, as there will be no opportunity for a later or make-up final exam. The location is TBA. This is a departmental final which means there is a small chance that you will have a final from another class scheduled at the same time by the university. You have until April 8<sup>th</sup> to inform me of a conflict with another final. No exceptions made for any other conflicts.

**Online Grades:** I will put your grades online on Canvas. You can get there easily from the main University of Utah website [www.utah.edu](http://www.utah.edu). To log in, you use the same student id and password that you use for Campus Information System. I do my best to update the grades on a regular basis and keep everything accurate. However, I would advise you to check your grades often to make sure there were no data entry mistakes. I'm always happy to correct any mistakes I've made. You just need to let me know about them.

**Please keep quizzes and tests until the end of the semester in case a mistake is made.**

**Calculators:** For exams, you will be allowed to use a scientific calculator, but only a calculator from this approved list of calculators. This will also be true on the final exam. <http://www.math.utah.edu/schedule/bookInfo/m1090ApprovedCalculators.pdf>

**Lecture Videos:** There is a complete set of lecture videos for this course, at <http://www.math.utah.edu/lectures/> (go to 1090 lecture videos page from there). These videos may be helpful additional resources for your success in this course.

**Grading Scale:** Although I'm not philosophically opposed to curving grades, I find it's rarely necessary. The grade scale will be the usual:  
A (93-100), A- (90-92), B+ (87-89), B (83-86), B- (80-82), C+ (77-79), C (73-76), C- (70-72), D+ (67-69), D (63-66), D- (60-62), E (0-59).  
If I do need to curve the grades, I will simply shift everything down by a few points (whatever is necessary).

**ADA Statement:** 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 (CDA), 162 Olpin Union Building, 581-5020 (V/TDD). CDA will work with you and me to make arrangements for accommodations. All information in this course can be made available in alternative format with prior notification to CDA.

**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.

**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. You 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, collusion, fraud, theft, etc. Students should read the Code carefully and know you are responsible for the content. According to Faculty Rules and Regulations, it is the faculty responsibility to enforce responsible classroom behaviors, beginning with verbal warnings and progressing to dismissal from 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).

**Safety Statement:** 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](http://safeu.utah.edu).

**Student Names and Personal Pronouns:** Class rosters are provided to the instructor with the students 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 U-ID card, please visit the LGBT Resource Center Room 409 in the Olpin Union Building, or email [bpeacock@sa.utah.edu](mailto: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.

**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](http://www.wellness.utah.edu) or 801-581-7776.

**Classroom Social Equity:** I strive to be ethical, kind, fair, inclusive and respectful in my classroom and expect students to behave likewise. In this regard, I have these requests of you, my student:

1. Please do tell me, discreetly, if you have any sort of anxiety disorder, TBI, PTSD, C-PTSD, or any other challenge that would cause psychological harm to you by me calling on you in class. So, please just tell me if that is the case for you and I will confidentially accommodate your request.
2. If your preferred name is different than your legal first name (*the preferred name you chose does indeed show up in CIS on my roll sheet, but not yet in Canvas*), please log into Canvas and go to Account (on far left)-->Settings and change your Display Name to be the name you prefer to be addressed by. This will help me greatly to know students' names, and to address you correctly when responding to Canvas quiz comments.
3. If there is ever a time that you feel this course or the curriculum is not equitable, please email me or meet with me to discuss your concerns so we have a chance to address that.

**Additional Policies:** 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.