

# Mathematics 1090

Fall, 2019

- Instructor:** Matthew Smith
- Class Time and Place:** 10:45 AM to 12:05 PM  
Tuesdays, Thursdays  
in JTB 140.
- Office Hours:** Mondays, 12:30 to 1:30 PM  
Wednesdays, 12:30 to 1:30 PM  
or you can ask quick questions after class,  
or you can send me an email to set up an appointment.
- Office Location:** JWB 331
- E-mail address:** [msmith@math.utah.edu](mailto:msmith@math.utah.edu)  
If you need to contact me for any reason, please send me an E-mail or contact me through Canvas.
- Class Web Page:** I will use the Canvas page to upload assignments and make announcements. 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 Systems.
- Text:** Business Algebra, 3rd edition, published by Kendall Hunt,  
(ISBN: 9781524970420)  
Book Purchasing Instructions:  
<http://www.math.utah.edu/schedule/bookInfo/Math1090BookInfo.pdf>
- Important Dates:** For the full University schedule, which is subject to change, visit <https://registrar.utah.edu/academic-calendars/fall2019.php>
- First day of class:** Tuesday, August 20<sup>th</sup>  
**Last day to Add without a permission code:** Friday, August 23<sup>rd</sup>  
**Add and Drop deadline:** Friday, August 30<sup>th</sup>  
**Withdrawal deadline:** Friday, October 18<sup>th</sup>  
**University Holidays:** Monday, September 2<sup>nd</sup>; October 6<sup>th</sup> -13<sup>th</sup>; November 28<sup>th</sup> – December 1<sup>st</sup>  
**Midterm Exam dates:** Thursday, September 26<sup>th</sup>; Thursday, November 14<sup>th</sup>  
**Last day of classes:** Thursday, December 5<sup>th</sup>  
**Reading Day:** Friday, December 6<sup>th</sup>  
**Final Exam date:** Tuesday, December 10<sup>th</sup>
- Course Information:** MATH 1090, College Algebra for Business and Social Sciences is a 3-credit semester course.

- Prerequisite:** At least a C grade in MATH 1010 (Intermediate Algebra) OR MATH 1050 (College Algebra) OR in MATH 1080 (Precalculus) 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 540.
- 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.
- 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.
- Course Expectations:** The University expects that students will work 2 to 3 hours outside of class for each hour spent in class. As this is a 3 credit class, that means that the expectation is that you will spend 6 to 9 hours outside of class each week.
- Grading:** The grades will be calculated as follows:
- **Homework:** 10%
  - **Group Activities:** 20%
  - **Midterm Exams:** 40%
  - **Final Exam:** 30%
- Homework:** Homework will be assigned **weekly**. Doing homework for practice is essential to your success in the class! Homework will be largely based on material covered in class recently. Your homework will be graded largely on completion and partially on correctness.
- I have the following policies for submitting homework:

- **Homework is due at the weekly deadline.** I will not give exceptions or extensions to homework deadlines. If you know in advance that you will not be able to turn in your homework for the week, let me know and I can try to accommodate you.
- **Homework must be stapled or securely fastened.** Repeated offenses may result in a homework score of zero for that assignment.
- **To receive completion credit, you must do the problems.** There are answers in the back of the book to every problem, so turning in a list of answers to each problem will receive a score of zero.
- **The lowest two homework scores will be dropped.** This will cover most circumstances related to missed homework throughout the semester.

**Group Activities:**

Around once a week I will hand out a worksheet based on material covered recently in the class, to be done in small groups picked randomly. While you will work in groups, everyone needs to submit their own worksheet for grading.

**Your lowest two scores will be dropped** to accommodate for any circumstances.

**Midterm Exams:**

We will have two midterm exams on the following days:

- **Exam 1:** Thursday, September 26<sup>th</sup>
- **Exam 2:** Thursday, November 14<sup>th</sup>

These exams will be at the usual time and place for the course. If you are not able to take an exam, **you will receive a score of zero.**

Please let me know in advance if you will not be able to take one of the exams on the scheduled date so I can try to accommodate you. You will need to take the exam before the scheduled date.

You are allowed to bring one 8.5 × 11-inch sheet of paper with any handwritten notes you want to each exam. Use of technology aside from a calculator, including cell phones, is prohibited. See also the calculator policy below.

If you are not satisfied with how an exam was graded, you will need to submit a written appeal with your exam stating which problems you would like to be regraded and why.

**Final Exam:**

The departmental final exam for this class is comprehensive and will occur during the scheduled period determined by the registrar.

**Tuesday, December 10<sup>th</sup>, from 3:30 to 5:30 PM.**

If you are not able to take the final exam, **you will receive a score of zero.** You should plan your schedule and Winter break with this date in mind.

Please let me know **at least two weeks in advance** (by **November 26<sup>th</sup>**) if you will not be able to take the final exam on the scheduled date so I can try to accommodate you. Because this course has a departmental final exam, you will need to make arrangements with the course coordinator to take the exam before the scheduled date.

**Calculators:**

Only scientific calculators are allowed for exams. Use of graphing or programmable calculators is prohibited on exams. A list of approved calculators can be found at:

<http://www.math.utah.edu/schedule/bookInfo/m1090ApprovedCalculators.pdf>

You can purchase some of the calculators on this list from the bookstore for around \$15. You can also check out a calculator from the knowledge commons desk at the Marriott Library:

<https://www.lib.utah.edu/services/knowledge-commons/checkout-equipment.php>

**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.

**Online Grades:**

I will put your grades online on Canvas. I would advise you to check your grades often to make sure there were no data entry mistakes. I am always happy to correct any mistakes I have made, you just need to let me know about them.

**Grading Scale:**

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).

**Tutoring Center:**

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:

<http://www.math.utah.edu/ugrad/lab.html>

**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 and 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.

**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).

**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). 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 pronouns 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.

**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).

**Additional Policies:** This syllabus is **not** a binding legal contract. It may be modified by the instructor when the student is given reasonable notice of the modification.