Course Number and Title: MATH 1050-002   College Algebra
Semester and Year: Spring 2021
Instructor: Eric Brown
>   **Email**: ebrown [at] math.utah.edu
>   **Accessibility & Support:** My preferred method of contact is through Canvas messages. You may also contact me at the above email address. See the "Communication" section below for reasons you should or should not reach out to me.
>   **Office Hours:** TBD and by appointment.

COURSE DESCRIPTION
This is a course in the algebra and quantitative reasoning skills needed for success in calculus and other sciences. A comprehensive list of learning objectives is below. Note: Few majors on campus require Math 1050. Although Math 1050 fulfills the general education QA requirement, those who do not need it as a prerequisite or for their major are encouraged to investigate Math 1030 or Math 2000 to fulfill that requirement.

COURSE DETAILS
- ➢ **Course Type:** IVC
- ➢ **Location & Meeting Times:** The course will meet online MoTuWeFr (all weekdays except Thursday) from 8:35-9:25am Mountain time. A link to the Zoom classroom will be posted to Canvas before the first day of class.
- ➢ **Attendance & Punctuality:** Lecture attendance is strongly encouraged but mandatory only on test dates (see below). To encourage attendance, extra credit will be awarded for participation. (Further details on how this will be handled will be provided during the first week of class.)
- ➢ **COVID-19 Considerations:** Students must self-report if they test positive for COVID-19 via coronavirus.utah.edu.
- ➢ **Course Materials:**
  - ○ **Textbook:** The textbook for this course is integrated into Canvas and provided at no cost.
- ➢ **Technical requirements:**
  - ○ This class will be conducted online. You should have access to a sufficiently strong internet connection to support this video conference.
  - ○ Quizzes and exams will be taken with Zoom proctoring. For this, you will need in addition to the steady internet connection a connected camera (on a smartphone or laptop).
  - ○ Quizzes and exams will be submitted digitally, so some form of digitizing technology will be needed. This could be a scanner, but there are excellent alternative scanning apps for smartphones. Quizzes and exams must be submitted as single PDF files. There are many scanning apps available for Android and IOS, some examples are: https://play.google.com/store/apps/details?id=com.adobe.scan.android&hl=en_US https://apps.apple.com/us/app/adobe-scan-digital-pdf-scanner/id1199564834
- ➢ **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.

COURSE EXPECTED LEARNING OUTCOMES

1   Sketch the graphs of quadratic and cubic polynomials, rational, radical, exponential, logarithmic, and piecewise functions with or without transformations. Be able to identify important points such as x- and y-intercepts, maximum or minimum values; domain and range; and any symmetry.
2   Given the graph of a function, be able to identify the domain, range, any asymptotes and/or symmetry, x- and y-intercepts, as well as find a rule for the function if it is obtained from a standard function through transformations.
3   Perform composition of functions and operations on functions
4   Find the inverse of a function algebraically and graphically.

5   For polynomial, rational exponential and logarithmic functions, identify the *x*-intercepts, asymptotes, end behavior and domain from algebraic and graphic representations.   Convert back and forth between algebraic, graphical and verbal representations.

6   Solve polynomial, rational, exponential, and logarithmic equations and inequalities.

7   Represent and interpret physical world situations using exponential and logarithmic functions.

8   Define *i* as the square root of -1 and know the complex arithmetic necessary for solving quadratic equations with complex roots.

9   Perform matrix arithmetic computations.

10 Solve systems of linear and non-linear equations in two or three variables, including the use of Gaussian elimination and matrix inverses in the linear case.

11 Understand sequences and be able to differentiate between geometric, arithmetic and others such as Fibonacci-type sequences, giving direct formulas where available or a numeric representation.

12 Understand series notation and know how to compute sums of finite arithmetic and finite and infinite geometric series.

COURSE DESIGN

Course content will be delivered using interactive video conferencing on Zoom. Zoom classes will be held on the days and times according to the official university schedule. You may use various Zoom features including the chat to interact with your instructor and any LAs. Homework is delivered online through the IMathAS software. Homework problems may be attempted as many times as necessary before the due date. The software immediately grades each problem. Quizzes and exams (see schedule below) will be taken during class time and uploaded by the scheduled end of class. Zoom sessions will be recorded and may be accessed later. Lecture videos are also available at http://www.math.utah.edu/lectures/math1050.php

CLASS SCHEDULE & IMPORTANT DATES

Exam Dates: Exams will be held on the following dates during normal class time (8:35-9:25am Mountain time): Monday 22 February, Monday 29 March, Monday 19 April. The final exam is Wednesday 5 May, 1:00-3:00 pm. The *only* possible conflicts with this schedule occur if you are also taking Finance 3040 or French 1010, 1020, 2010, or 2020. If you are in one of these classes, work out final exam arrangements with your two instructors within the first two weeks of the semester.

Official Drop/Withdraw Dates: The last day to drop classes is Friday, January 29; the last day to withdraw from this class is Friday, March 12. Please check the academic calendar for more information pertaining to dropping and withdrawing from a course. Withdrawing from a course and other matters of registration are the student's responsibility.

Holidays: There will be no class on February 15, March 5, and April 5.

Week #	Start	Finish	Schedule Notes	Sections	Assessments
1	1/19	1/22		1.1-1.3	
2	1/25	1/29		1.3-1.5	Quiz 1
3	2/1	2/5		2.1-2.3	Quiz 2
4	2/8	2/12		2.4-2.5	Quiz 3
5	2/16	2/19	No class 2/15		Quiz 4
6	2/22	2/26		3.1-3.2	Exam 1
7	3/1	3/4	No class 3/5	3.3-3.4	Quiz 5
8	3/8	3/12		4.1-4.3	Quiz 6
9	3/15	3/19		4.4-4.5	Quiz 7
10	3/22	3/26			Quiz 8

11	3/29	4/2		6.1-6.3	Exam 2
12	4/6	4/9	No class 4/5	6.4-6.5	Quiz 9
13	4/12	4/16			Quiz 10
14	4/19	4/23		7.1-7.2	Exam 3
15	4/26	4/27		Review	
	5/5		1:00-3:00 pm		Final Exam

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 Canvas. You will be responsible for any information contained in them as well as the information announced in class.
- It is also your responsibility to check your Canvas messages regularly. 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 or Canvas message. I will do my best to answer emails promptly. 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.
- I will always do my best to ensure the communication relevant to the course is clear and transparent, it is your responsibility as well to keep yourself updated by regularly checking: the announcements on Canvas, your Umail, the posts on the Discussions Board, and pay attention to the announcements given in class and Discussion Section.
- Students are expected to log in and check Canvas every day for posted announcements and assignments. Students are also strongly advised to set up notifications for Canvas so they do not miss any important notifications.

EXPECTATIONS FOR ONLINE LEARNING ENVIRONMENT
- Classroom equivalency: Respectful participation in all aspects of the course will make our time together productive and engaging. Zoom lectures, discussion threads, emails and canvas are all considered equivalent to classrooms and student behavior within those environments shall conform to the student code. Specifically:
  - Posting photos or comments that would be off-topic in a classroom are still off-topic in an online posting.
  - Disrespectful language and photos are never appropriate.
  - Using angry or abusive language is not acceptable, and will be dealt with according to the Student Code. The instructor may remove online postings that are inappropriate.
  - Do not use ALL CAPS, except for titles, or overuse certain punctuation marks such as exclamation points and question marks.
  - Course e-mails, e-journals, and other online course communications are part of the classroom and as such, are University property and subject to the Student Code. Privacy regarding these communications between correspondents must not be assumed and should be mutually agreed upon in advance, in writing.
- Online submissions: You are responsible for submitting the assignment with the required naming convention, correct file extension, and using the software type and version required for the assignment.

ASSIGNMENTS, ASSESSMENT & GRADING

Semester letter grades will be converted from numerical semester scores (N) as follows:

$$100 \geq N \geq 93: A \qquad 93 > N \geq 90: A\text{-}$$
$$90 > N \geq 88: B+ \qquad 88 > N \geq 83: B \qquad 83 > N \geq 80: B\text{-}$$
$$80 > N \geq 78: C+ \qquad 78 > N \geq 73: C \qquad 73 > N \geq 70: C\text{-}$$
$$70 > N \geq 68: D+ \qquad 68 > N \geq 63: D \qquad 63 > N \geq 60: D\text{-}$$
$$60 > N \qquad : E$$

The numerical grade consists of several components:

- 17% of final grade: Homework. Homework is delivered online through the IMathAS system. These homeworks will be linked through Canvas and are fully online (no file uploads needed). If you think you have caught a mistake in the online homeworks, send me a message on Canvas with an explanation of what you think is wrong.
- 13% of final grade: Quizzes. There will be weekly quizzes delivered through Canvas and submitted via file upload. There are 10 quizzes in total, which must be submitted within a given time window. The two lowest quiz scores will be dropped. Quizzes may not be retaken. 3% of this grade is a mandatory quiz on the syllabus that will take place during the first week.
- 60%: There will be three midterm exams which are longer than quizzes. These will also be delivered via Canvas and submitted via file upload. The lowest midterm exam score may be dropped and replaced by a higher final exam grade. Each midterm is worth 20%. If you do not take an exam, that score will not be dropped -- it's best for you in the course to attempt all the assigned work.
- 10%: The final exam will offer an opportunity to show mastery of topics after the time they were covered in the course. It is worth only a small portion of your final grade, but if mastery of topics is shown on the final (by scoring higher on the final than the lowest midterm score), the final exam grade will replace the lowest midterm score.

It is the student's responsibility to ensure the accuracy of all recorded homework, quizzes, online assignments, and exam grades. Also you should keep as record all your graded assignments. If you see any error in your grades on Canvas, reach out to the instructor as soon as possible, or at the latest within two weeks from when the assignment was returned.

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.

Plagiarism: Students must adhere to the standards of academic integrity for this course. In particular, assessments that are not specifically labelled as being group work should be completed without outside help. We encourage you to make use of other internet sources in the learning process and for assistance on homework, but online resources are not to be used during quizzes or exams. Incidences of academic dishonesty will result at a minimum of a zero grade for that particular assignment, or possible stricter sanctions in accordance with University policy (see below).

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

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

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[1]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.

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.