

## MATH 1030: Introduction to Quantitative Reasoning (3 credits)

Fall 2021

Section 2

Class Hours: MoWeFr / 8:35 AM-9:25 AM

Classroom: Warnock Engineering Building (WEB) 1230

Instructor: Mishel Skenderi

Email Address: [mskenderi@math.utah.edu](mailto:mskenderi@math.utah.edu)

Office: John Widtsoe Building (JWB) 209

Office Hours: Tu 4:00 PM-5:00 PM and We 1:00 PM-2:00 PM

My office hours will be held in-person in my office, JWB 209. If you would like to meet with me at some other time either in-person or via Zoom, then please email me so that we may schedule an appointment.

**Textbook:** *Using & Understanding Mathematics: A Quantitative Reasoning Approach, 7th edition* Jeffrey O. Bennett, William L. Briggs (ISBN-13: 9780136414148). Students already have access to an e-book version of this textbook through the University's Inclusive Access Program. To access this textbook, click on the "Bookshelf" tab on our class's Canvas page. Through this Program, students also have access to the online homework website *MyLab and Mastering*. Some supplemental material for this course is available at <http://www.math.utah.edu/lectures/math1030/>.

**Prerequisites:** From Summer 2021 to Summer 2022, the Math Department will not be using prerequisites to place students into math classes. Instead, the Math Department is moving to informed self-placement, and students are responsible for determining whether they are ready for the courses that they select. The former prerequisites for Math 1030 are listed below. These are still recommended as guidelines for determining whether you have the background to be successful in this course.

- At least a C grade in Math 980 or Math1010, or
- Math ACT score of at least 19, or
- Math SAT score of at least 500, or
- Accuplacer QAS score of at least 250. The University provides a free Accuplacer exam to all students: see <https://testingcenter.utah.edu/students/placement-tests/math-placement.php>.

To help students make an informed decision about placement, the Department of Mathematics has prepared some helpful videos (series of five) and materials; these are available at <http://www.math.utah.edu/undergraduate/placement.php>. Before enrolling in this course, you should be able to manipulate variable expressions, work with simple linear equations and graphs, work with fractions and exponents, and know the basic properties of simple geometric shapes. (Note: MATH 1030 does not satisfy a MATH 1050 or MATH 1090 prerequisite.)

**Weekly Workload:** According to the University of Utah, a 3-credit course should have about 3 hours of lecture per week and 6-9 hours of additional study/homework time per week. This might not be the case for all students: some students may require more time and other students less time.

**Course Objectives:** MATH 1030 fulfills the Quantitative Reasoning – Math QA general education requirement for graduation. This course addresses the following Essential Learning Outcomes: inquiry and analysis, critical thinking, written and oral communication, quantitative literacy, teamwork, and problem solving. MATH 1030 is an application-based course centered around the use of

mathematics to model changes in the real world, and the effective communication of these mathematical ideas. The course is based on Chapters 1–4, 8, 9, and 10 (Section A). You are expected to read each section that we cover.

**Learning Goals:** At the end of this course, students should be able to:

- use Venn diagrams to examine relationships between sets and the validity of simple deductive arguments;
- verbally describe both the absolute and percent change in a given quantity and interpret statements about such changes;
- use simple and compound units, making conversions when necessary, and develop accurate comparisons between units;
- evaluate the impact of compound interest on simple financial decisions;
- use the savings plan and loan formulas to calculate the payment amount into the savings plan when a certain financial goal needs to be achieved and to calculate the mortgage payment or interest paid over the life of the loan and discuss whether those results are realistic (or not);
- compare several loans with different interest rates in order to make financial decisions;
- compare and illustrate the features of linear and exponential growth using practical examples;
- determine simple perimeters, areas, and volumes and explain the differential effect of scaling on perimeter, area, and volume, as well as some of the practical implications of scaling.

**Course Structure and Grading Policy:** This course is based on Chapters 1–4, 8, 9, and 10 (Section A) of the textbook. Students are expected to read each section that we cover. It is important to keep up with the pace of the course, because there are specific due dates and quiz dates and exam dates throughout the semester. Students are expected to do the following.

- **Obtain a Calculator:** You will need a calculator for this course. A scientific calculator is sufficient. You are not allowed to use your cell phone as a calculator.
- **Attend Class:** In-class attendance is a necessary component of this course. All quizzes and exams will be taken in class. Although attending class does not count towards your grade, attendance helps you learn the material, which therefore helps your grade.
- **Read the Textbook:** Make sure that you complete each week’s reading by the end of the week.
- **Check Canvas Frequently:** All important information regarding this class, including announcements and assignments, may be found in the “Announcements” and “Files” tabs on the class’s Canvas page. It is your responsibility to be aware of all information on the class’s Canvas page; you are advised to set up notifications for the class’s Canvas page.
- **Participation:** Although participation does not count towards your grade, you are still encouraged to participate. Feel free to ask questions in class if anything is unclear or to meet with me in office hours to discuss the material. You can also contact me by email ([mskenderi@math.utah.edu](mailto:mskenderi@math.utah.edu)) and use the “Discussion” tab on Canvas. On the “Discussion” tab, you can post questions, comments, and suggestions for your classmates and me; you can also answer any questions and find a study group or a group for the group project (to be discussed soon in this syllabus).

- **Online Homework (15% of semester grade):** The homework is given through MyLab and Mastering. Working through problems helps you understand and master the material. The scores are imported to Canvas. There are 10 homework assignments throughout the semester and the 3 lowest homework assignment scores will be dropped at the end of the semester. The homework assignment due dates (and times) are given in the Daily Schedule document. You will be able to continue working on the homework assignments after the due date with a penalty of 30% on those problems submitted after the due date, but not on any of the other problems. You can attempt each question 5 times and use different tools, such as “Question Help”. All homework assignment submissions will close on the day of the final exam (Monday, December 13th) at 3 PM.
- **Quizzes (15% of semester grade):** Quizzes will be given in class. The quiz dates are given in the Daily Schedule document. The quizzes are 15-20 minutes long. Please show all your work. There will be 7 quizzes in our class. Make-up quizzes will NOT be given, irrespective of the reason. However, the lowest 2 quiz scores will be dropped at the end of the semester. Thus, **your best 5 quizzes will be worth 3% each**. You are allowed to use a scientific or graphing calculator for your quizzes. You are NOT allowed to use your phone during quizzes.
- **Project (15% of semester grade):** The project will be due on Wednesday, November 24<sup>th</sup> at 11:59 PM, submitted on Canvas. This project is an in-depth 7-10 page paper in which students will implement some of the mathematics in this course. The list of topics is already posted in the “Project” folder under the “Files” tab. You will work in groups of 3-4 students on a topic selected from that list. We shall discuss the format and expectations for this project before you start working on it. The group sign-up will be available on Canvas and will be due on Friday, September 24<sup>th</sup> at 11:59 PM. Late projects will be accepted with a penalty of 10% per every 3 days past the due date. (We always round down, so that less than 3 days late counts as being on time and less than 6 days late but at least 3 days late counts as being 3 days late, etc.) Any group that intends to submit the project late (even by less than 3 days) must inform me in advance.
- **Non-Final Exams (30% of semester grade):** There will be 3 non-final exams. The lowest non-final exam score will be dropped, so **your best 2 non-final exams will be worth 15% each**. These exams will be taken in our classroom at the usual class time. You are allowed to use a scientific or graphing calculator for your exams. You are NOT allowed to use your phone during exams.

You MUST bring a valid ID card, such as your University ID card, to the exam. Absence from an exam will be excused only if you can provide verifiable and convincing evidence that you have a significant illness or serious personal or family crisis that will prevent your attendance. Except under extremely unusual circumstances, you must inform me at least 5 days in advance of the missed exam, and you must take the make-up exam prior to the actual exam date. All make-up exams have to be taken within 5 days prior to the actual exam. If there are extremely unusual circumstances, you must talk to me as soon as you are aware of your situation. University-excused absences (band, debate, student government, intercollegiate athletics, etc.), military duty, or religious obligations are excused with official documentation that addresses the reason for absence. You are expected to promptly make arrangements with me to make up the exam. Vacation or work schedule are not considered to be excused absences.

If the reason that you missed an exam does not follow the guidelines described above, then that will be the exam that will be dropped at the end of the semester. Please do not ask me to make exceptions.

NOTE: Students with approved absences will usually take the make-up exam at Exam Services at the UOnline Center in the Marriott Library, Suite 1704. Exam Services is typically open from 9 AM-5 PM Monday-Friday and will have some hours on Saturday, but

the hours may vary from week to week (especially given the COVID-19 situation). It is the student's responsibility to check the hours of Exam Services; the student must register for a time slot to take the quiz or exam. To do so, call 801-581-6112 (option 3) or visit <https://online.utah.edu/exams-and-proctoring/>.

- **Final Exam (25% of semester grade):** The final exam is departmental and comprehensive, covering all the material that we have learned during this semester. The final exam will take place on Monday, December 13<sup>th</sup>, 3:30 PM-5:30 PM. Students are not allowed to take the final exam early or late, so please make sure that you take the final exam at the scheduled date and time. You are allowed to use a scientific or graphing calculator for your final exam. You are NOT allowed to use your phone during the final exam. The date and time have been decided by the Scheduling Division of the Office of the Registrar. The full Fall 2021 Final Exam Schedule is available at <https://registrar.utah.edu/academic-calendars/final-exams-fall.php>.
- **Exam Dates:**
  - Exam 1: Friday, October 1; in class
  - Exam 2: Friday, October 29; in class
  - Exam 3: Friday, December 3; in class
  - Final Exam: Monday, December 13; 3:30 PM-5:30 PM in our usual classroom, Warnock Engineering Building (WEB) 1230
- **Determination of Semester Grade:** Your semester grade will be determined by your percentage grade as follows.

A	93%–100%
A–	90%–92.9%
B+	87%–89.9%
B	83%–86.9%
B–	80%–82.9%
C+	77%–79.9%
C	73%–76.9%
C–	70%–72.9%
D+	65%–69.9%
D	60%–64.9%
D–	55%–59.9%
E	less than 55%

All grades will be recorded on Canvas. It is the student's responsibility to ensure the accuracy of all recorded grades. If you see any error in your recorded grades on Canvas, then inform me as soon as possible.

**Incomplete (I) Grade:** University policy allows the assignment of a grade of Incomplete (I) if 80% or more of the course work has been completed. I will consider assigning an Incomplete (I) only under EXCEPTIONAL circumstances unrelated to academic performance, and only if the student is passing the course with a grade of C or higher at the time that the Incomplete (I) is requested.

**Credit/No Credit (CR/NC) Option:** 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 the student's 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."

Please keep the following in mind when making a decision.

- If you opt for CR/NC, then your instructor still assigns you a semester grade; but then the Registrar switches the grade to CR if the grade is a C- or higher and NC if the grade is a D+ or lower.
- If you are taking MATH 1030 to meet the QA general education requirement, then a grade of CR will fulfill the QA requirement but a grade of NC will not. However, grades of D+/D/D- WILL FULFILL the requirement. Thus, for this course, although a CR/NC grade may be better for your GPA, you might prefer the D+/D/D- grade to fulfill the requirement.
- If you are taking MATH 1030 to meet a major or minor requirement, then you should opt for a letter grade, rather than CR/NC.
- If you are taking MATH 1030 as a prerequisite, then it is easier to opt for a letter grade. You will need a grade of C or higher to enroll in most subsequent courses. If you opt for CR/NC in MATH 1030, then you will need to request a permission code for subsequent courses; the permission code team will then check to see whether your “underlying” MATH 1030 grade meets the requirement.

If you are uncertain about what choice to make, then speak with an academic advisor to review your situation and discuss your options.

**Add, Drop, Withdraw, CR/NC, Audit Deadlines:** The University of Utah has set the following deadlines.

- last day to add without a permission code: Friday, August 27<sup>th</sup>
- last day to add, drop (delete), elect CR/NC, and elect to audit classes: Friday, September 3<sup>rd</sup>
- last day to withdraw from classes: Friday, October 22<sup>nd</sup>
- last day to reverse CR/NC option back to letter grade: Friday, December 3<sup>rd</sup>

All important academic dates can be seen in the Fall 2021 Academic Calendar:

<https://registrar.utah.edu/academic-calendars/fall2021.php>.

**Academic Assistance:** In addition to emailing me, attending office hours, and using the “Discussion” feature on Canvas, there exist the following resources.

- **Virtual Math Center Drop-In Tutoring Service:** Information about this service is available at <https://utah.instructure.com/courses/613503/>.
- **Learning Center:** The Learning Center offers three free tutoring sessions per student per semester. Additional hours can be purchased after that. Scholarship assistance is also available. Here is the website of the Learning Center: <https://learningcenter.utah.edu/>.

### **Help with Equipment:**

- For technical assistance with Canvas, review the Canvas Student Guide (<https://community.canvaslms.com/t5/Student-Guide/tkb-p/student>) or contact Teaching & Learning Technologies (<https://tlt.utah.edu/>) or contact/visit Knowledge Commons (<https://www.lib.utah.edu/services/knowledge-commons/>).
- **MyLab and Mastering Assistance:** If you are having issues with the Pearson online platform MyLab and Mastering, here is the support website: <https://mlm.pearson.com/northamerica/students/support/index.html>.
- **Equipment Loan Program:** The University has a laptop and mobile hotspot loan program: laptops and mobile hotspots are mailed to current University students on a first come, first served basis. Here is the website: <https://lib.utah.edu/coronavirus/checkout-equipment.php>.

**Academic Misconduct:** Students are encouraged to review Policy 6-400: Code of Student Rights and Responsibilities (“Student Code”), which is available at <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.

Cheating and plagiarism are serious offenses and can result in getting a grade of ZERO on the assignment, failing a class, a note in your record, or being expelled. Please know that looking at someone else’s exam is cheating and will be dealt with seriously as stated above. By accepting admission to the University you have agreed to abide by the University rules provided to you in the student handbook.

Incidents of academic misconduct (e.g., cheating, plagiarizing, misrepresenting one’s work, and/or inappropriately collaborating on exams) will be subject to penalty per Section V of the Student Code. Incidents of academic dishonesty on homework assignments will result in a minimum penalty of a full letter-grade reduction and up to a failing grade (E) for the course. Incidents of academic dishonesty on exams will result in a minimum penalty of a failing grade (E) for the course, and the incident(s) will be referred to the dean of your major-department college for possible further sanction.

**Students with Disabilities:** In accordance with the Americans with Disabilities Act, the University of Utah seeks to provide equal access to its programs, services, and activities for persons with disabilities. If you will need accommodations in the class, then reasonable prior notice needs to be given to the Center for Disability & Access (CDA), 162 Olpin Union Building, 801-581-5020, <https://disability.utah.edu/>. The 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 CDA.

**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, then 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, <https://oeo.utah.edu/contact-us/index.php/> or to the Office of the Dean of Students, 270 Union Building, 801-581-7066, <https://deanofstudents.utah.edu/>. 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-COPS (801-585-2677), <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-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 <https://safeu.utah.edu/>.

**University Counseling Center (UCC):** The UCC staff is committed to supporting the mental health needs of our campus community. Their phone number is 801-581-6826. Their hours are Monday-Friday, 8:00 AM-5:00 PM. For after-hours emergencies, contact the 24/7 Crisis Line: 801-587-3000. More information is available at <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. To contact the Office of the Dean of Students, please email [deanofstudents@utah.edu](mailto:deanofstudents@utah.edu) or call 801-581-7066. More information is available at <https://deanofstudents.utah.edu/>.

**Student Success Advocates (SSA):** The SSA are located at the Sterling Sill Center. Their website is <https://ssa.utah.edu>. Their phone number is 801-587-8556. The mission of SSA is to support students in making the most of their experience at the University. They can assist with mentoring, resources, and other matters. Any student who faces challenges securing food or housing is urged to contact the SSA for support.

**Wellness Statement:** Stress, anxiety, depression, relationship difficulties, the coronavirus pandemic etc. can interfere with a student's ability to succeed and thrive at the University. The Center for Student Wellness (CSW) provides resources to address such difficulties. The CSW is located at the Eccles Student Life Center. Its website is <https://wellness.utah.edu>. Its phone number is 801-581-7776.

**Student Veterans:** The University has a Veterans Support Center, Olpin Union Building, 801-587-7722, <https://veteranscenter.utah.edu/>. The website contains important information, including a list of ongoing events and links to outside resources. Furthermore, let me know if you need any additional support.

**Students Learning English as a Second Language (ESL):** There are several resources on campus that support English learners with language and writing development. These resources include the University Writing Center (<https://writingcenter.utah.edu>), the Writing Program (<https://writing-program.utah.edu>), and the English Language Institute (<https://eli.utah.edu>).

**Undocumented Students:** If you are a student whose immigration status presents obstacles to engaging in specific activities or fulfilling specific course criteria, then confidential arrangements may be requested from the Dream Center, 801-213-3697, <https://dream.utah.edu>. 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 or without DACA), as well as students from families with mixed immigration statuses.

**COVID-19 Considerations:** The University's dedicated COVID-19 website is <https://coronavirus.utah.edu/>. University leadership urges all faculty, students, and staff to model the vaccination, testing, and masking behaviors that we want to see in our campus community.

- **Vaccination:** You are encouraged to receive a COVID-19 vaccination if you have not already done so; vaccinations are free of charge and widely available. Vaccination is proving to be highly effective in preventing severe COVID-19 symptoms, as well as hospitalization and death from COVID-19. Vaccination is the single best way to stop the current resurgence. To schedule a vaccination appointment, visit <http://mychart.med.utah.edu/> or <https://alert.utah.edu/covid/vaccine/> or <http://vaccines.gov/>.

- **Masking:** Masks are required inside University Health (also known as Health Sciences) facilities, campus shuttles, and UTA buses. Masks are no longer required elsewhere, but CDC guidelines call for everyone, regardless of vaccination status, to wear masks while indoors.
- **Testing:** If you are not vaccinated (or not yet vaccinated), then you are encouraged to be tested for COVID-19 once per week; tests are free of charge and widely available.
- **Self-Reporting:** Any student, faculty member, or staff member who tests positive for COVID-19 is required to self-report the positive test via the website <https://coronavirus.utah.edu/>.
- **Reporting to Instructor (Me):** In addition to self-reporting, any student in this class who tests positive for COVID-19 must inform me via email ([mскenderi@math.utah.edu](mailto:mскenderi@math.utah.edu)) of the positive test.

**DISCLAIMER:** This syllabus is intended to serve as an outline and guide for our class. Please note that I may modify the syllabus with reasonable notice to you. Any changes will be announced in class and posted on Canvas.