

**MATHEMATICS 1030 – 004**  
**Introduction to Quantitative Reasoning (3 credits)**  
**TuTh 3:40 – 5:00 pm LCB 225**

**Instructor.** Hyunjoong Kim – [hkim.math1030@gmail.com](mailto:hkim.math1030@gmail.com) or canvas message

**Office Hours.** LCB 313, TuTh 5:00 – 6:00 pm or by appointment

**Course Objectives.** Math 1030 course will fulfill 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. At the end of the course a student should be able to:

- Use Venn diagrams to examine relationships between sets and the validity of simple deductive arguments
- Use an appropriate sentence to describe both the absolute and percent change in a given quantity and interpret such statements about the change
- 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, 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 financial decisions
- Compare and illustrate the features of linear and exponential growth using practical examples
- Determine simple areas, volumes, and explain the differential effect of scaling on perimeter, area, volume as well as some of the practical implications of scaling

**Prerequisites.** "C" or better in MATH 980 (Algebra for College Success) or Math 1010 (Intermediate Algebra) OR Accuplacer EA score of 60 or better OR ACT Math score of 19 or better OR SAT Math score of 500 or better.

This means that 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.

**Textbook.** Using and Understanding Mathematics: A Quantitative Reasoning Approach, by Jeffrey O. Bennett and William L. Briggs (custom edition for University of Utah)  
ISBN-10: 1-269-74850-5 ISBN-13: 978-1-269-74850-6

- A. The least expensive option for the book is to buy it through the Inclusive Access Program. An email will go out to all math 1030 students (sent by the bookstore to your .edu email address) prior to the first day of class with information on what Inclusive Access is and instructions on how to access the digital course materials. If you (the student) decide you don't want the instant access to the course materials you will have the option to OPT OUT and will be refunded accordingly. Students still need to pay for the course materials cost along with their tuition, but once you OPT OUT during the first two weeks of class you will receive a full refund of the course material cost. You will then be responsible for obtaining your own course material/textbook for that course. Through the Inclusive Access Program, students will receive a digital copy of the book. The students' cost for math 1030 access is \$39.00.
- B. If a student wishes to order a hard copy of the book, he/she can talk to Shane Girton (U of U Bookstore) and a copy of the book can be special ordered. The new copy of the custom version for the U of U is \$110.
- C. A student can choose to rent the book (180-day rental) or buy eTextbook at the following website:  
<https://www.vitalsource.com/products/using-and-understanding-mathematics-a-jeffrey-o-bennett-v9780321912343>  
The current cost for math 1030 book is \$41.99 through this website.
- D. The book can be rented/purchased through a variety of vendors, such as eBay, Amazon or similar websites. The cost is usually more than the Inclusive Access cost and it changes daily.

NOTE: Before you purchase the textbook please make sure that Math 1030 is a good fit for you and you are not planning to withdraw from the class. Some vendors will not allow you to return the book for a refund if you decide to withdraw. Please read all policies associated with the return/refund before you purchase and pay for the book.

**Exams – 30%.** You will have 2 exams (50 minutes each). You MUST bring a valid ID 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 family crisis that will prevent you from attending. Except under extremely unusual circumstances, you must inform me in advance of the missed test. You are expected to promptly make arrangements with me to make up the test. Vacation or work schedule are not considered to be excused absences. The exams are scheduled for

***February 21<sup>th</sup> (Thursday) and April 11<sup>th</sup> (Thursday).***

Please plan ahead of time.

**Final Exam (comprehensive/departmental) – 30%.**

***April 25<sup>th</sup> 3:30 – 5:30 pm***

This date and time are assigned by the University of Utah scheduling office. You can view the Spring 2019 final exam schedule at (math 1030 is listed under the departmental finals):

<http://registrar.utah.edu/academic-calendars/final-exams-spring.php>

If there is a location change from your regular classroom your instructor will inform you.

Students are not allowed to take early/late departmental final exam. Please do not schedule your trip before this date, or do not ask your instructor to give you extra time to study.

**Group Project – 20%.** There will be a group project you will work on during the semester. You will work in groups of about three creating an in-depth report about a real-world-application of something we have covered in class. The list of topics is given in the Canvas and then projects will be due

***April 4<sup>th</sup> (Thursday)***

Late projects will not be given full credit, but you should have enough time to complete it. You must work in a group and cannot do the project independently.

**Worksheets – 10%.** Once we finish to discuss a topic or a section, we solve and discuss some comprehensive problems in a worksheet. In order to enhance your understanding and mathematical communication, we do the worksheets in group work. One should discuss a problem, but you are expected to write individually. We spend 40 minutes for solving problems in class. You submit your work in class.

**Quizzes – 10%.** There will be a quiz for each chapter (and 7 sections in total). These evaluate your individual problem-solving abilities and mathematical writing communication so that you should solve the problems individually. The problems will be very similar to the textbook problems or examples that we have done in class; the suggested problems for exercise; or the related worksheet problems. No make-up quizzes will be given, but the lowest two quiz grades will be dropped at the end of the semester. I can only provide a make-up quiz for University excused absences (band, debate, student government, intercollegiate athletics, etc.) or military duty with an official documentation addressing the reason for absence.

**Grading Policy.** Your grade will be based on:

Exams (2)	30% (15% each)
Final Exam	30%
Group Project	20%
Worksheets	10%
Quizzes	10%

**Course Grades (Evaluation methods and criteria).** Your final letter grade will be determined by your overall percentage as follows:

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

**Calculators.** You will need a calculator for this course. A scientific calculator will be sufficient. You are required to bring the calculator to every lecture/exam since your instructor will not provide the calculator for students. You are not allowed to use your cell phone as a calculator.

**Tutoring.** The Rushing Math Center offers free drop-in tutoring, a computer lab, and study areas for undergraduates. The Rushing Student Center is adjacent to the LCB and JWB. The hours for the Fall/Spring semester are: 8 am – 8 pm Monday-Thursday and 8 am – 6 pm on Friday. The tutoring center will open the second week of classes.

#### **Important Dates.**

- last day to add without a permission code – Friday, January 11<sup>th</sup>
- last day to add, drop (delete), elect CR/NC, or audit classes – Friday, January 18<sup>th</sup>
- last day to withdraw from classes – Friday, March 8<sup>th</sup>

All important dates can be seen at:

<http://registrar.utah.edu/academic-calendars/spring2019.php>

**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 Services, 162 Olpin Union Building, 581-5020 (V/TDD). CDS will work with you and the instructor to make arrangements for accommodations. All information in this course can be made available in alternative format with prior notification to the Center for Disability Services.

**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 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 statement.** 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 pronoun will be respected. If you need assistance getting your preferred name on your UID 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.