

MATH 1030-070
INTRODUCTION TO QUANTITATIVE REASONING
SPRING 2020 SYLLABUS

INSTRUCTOR: John Nordstrom, Associate Instructor, Continuing Education

TIME & PLACE: Tuesday, 6:00 – 8:30 PM, [Room 204 of Sandy Center](#)

OFFICE HOURS: Being adjunct faculty, I don't have a University office; not having an office, I don't have office hours. I generally try to be available both before and after class to answer any questions you have. I can also be reached by any of following methods (email is preferred):

Email: nordstro@math.utah.edu (anytime) *Note the missing 'm' in my name!*

Website: Canvas

TEXTBOOK: *Using and Understanding Mathematics: A Quantitative Reasoning Approach*, by Jeffrey O. Bennett and William L. Briggs (custom edition for University of Utah, taken from the sixth edition)

ISBN-10: 1-269-74850-5
ISBN-13: 978-1-269-74850-6

There are numerous ways you can get the textbook:

- 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. You can access the book through the Canvas link "Bookshelf". 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.
- 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.
- 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.
- 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.

PREREQUISITES: "C" or better in MATH 980 (Algebra for College Success) or Math 1010 (Intermediate Algebra) OR Accuplacer EA score of 60 or better (taken prior to January 14th, 2019) OR Next Generation Accuplacer QAS score of 250 or better (taken after January 30th, 2019) OR ACT Math score of 19 or better OR SAT Math score of 500 or better.

Note: You can place into math courses with the ACT/SAT or Accuplacer Exam scores if you took the exam within the last 2 years.

Before entering this class, 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.)

COURSE DESCRIPTION:

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. The course is based on Chapters 1-4, 8,9, and Chapter 10 (sec. A). You are expected to read each section that we cover.

For every hour of lecture, the university suggests that you invest 2 – 3 hours of additional work (every week). This means that for this 3-credit hour class, you need to put in 6 – 9 hours of additional work on a weekly basis.

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 make 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

COURSE STRUCTURE:

The class schedule lists this class as being a lecture course, and that is true as far as it goes. But like any mathematics course, this course will require your active participation to be effective. You will have to do much of the heavy lifting yourself, both in and out of class. You are expected to do the assigned homework, not for any points you might earn, but because:

You learn math by doing math.

We will spend the first part of every class going over questions from the homework; if you haven't done the homework you won't know what questions to ask. I will expect you to be active participants in the class, working problems and asking questions as we will be work through the text in class. Each class you can expect to:

- Have whole class discussions and short lectures on pertinent material.
- Engage in problem solving during class, either individually or in small groups of two or three.
- Be prepared to answer questions from either the homework or the lecture.

- Be prepared to take a short quiz.

These activities are organized for your benefit. Work in class is meant to train you to become better problem solvers, inform you of how well you are understanding the material, and to inform me what we need to focus on. You are required to be in class and engage actively to maximize the benefits of class work. If you prefer to work in your own time, we recommend taking an on-line class that allows this flexibility.

Please don't be afraid to ask questions, either in or out of class. If there is something you do not understand, you can be assured there are other students who are also lost and will appreciate your question.

APPROXIMATE GRADING:

Homework & Weekly Quizzes:	20%
Group Project:	20%
Two Midterms:	30%
Comprehensive Final:	30%

Please note that this is the *approximate* weight given to each of the components you will be graded on. In particular, I typically give more weight to your final if you do especially well on it.

My grading scale for this class is as follows:

A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E
>93%	90-93%	87-90%	83-87%	80-83%	77-80%	73-77%	70-73%	65-70%	60-65%	55-60%	<55%

Unusual circumstances may dictate that we deviate from either the planned number of assignments and tests, or the grading and scoring guidelines as described. Any changes will be announced and discussed in class.

GROUP PROJECT:

This project is intended to be an in-depth exercise implementing some of the mathematics of the course. The project is worth 20% of your grade. You will work in groups of two to three. You will submit the written project towards the end of the semester

HOMEWORK:

You will be assigned a fair amount homework. Whether this homework will be assigned as paper-based assignments or through an online homework system is still to be determined.

WEEKLY QUIZZES:

Short quizzes will be given most weeks. The lowest 20 – 30% of your quizzes will be dropped (depending on exactly how many quizzes we ultimately have).

MIDTERMS:

There will be two one-hour midterms. These tests will be taken in class on the days listed in the Exam Schedule at the end of this syllabus. You can take an alternate midterm if you talk to me about it before the exam occurs. If you miss an exam due to an unforeseeable emergency, contact me as soon as possible with documentation of what happened. Depending on the situation, you may be allowed to makeup the exam.

FINAL:

There will be a two-hour comprehensive final. See the Exam Schedule at the end of this syllabus for the date and time of the final.

ONLINE GRADES:

I will put your scores online in Canvas. 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. Please realize that while Canvas is pretty good at giving you an average of how you are doing, it always just presenting you with a snapshot of your scores up to that point in time. Each exam, especially the final, can cause major shifts in how you are doing.

If you are new to Canvas, please let me know and I can assist you in logging onto the system.

GETTING HELP:

You may find that you need some extra help beyond what the class can provide. The math department has a free tutoring center located on campus in the T. Benny Rushing Mathematics Center (www.math.utah.edu/undergrad/mathcenter.php). For more personalized attention, the ASUU Tutoring Center (www.sa.utah.edu/tutoring) provides both individual and group tutoring at reasonable rates.

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.

1. It is your responsibility to be ready for class.
2. You will receive regular communication from me in Canvas about the assignments and other information. I expect you will read those in a timely manner. (If you do not check Canvas mail regularly, forward it to an address you do check often). I am happy to respond to any questions you have, but check my previous communication to make sure they were not answered already.
3. In an effort to create a vibrant learning community, extraneous use of cell phones and other electronic devices is not allowed. Turn them off and put them away. Use of electronic devices distracts you, those around you, and me. If you are using a computer to take notes, it must lie flat on the desk. (No computers with open screens). If you need to use your phone during class, please leave the classroom. You will be asked to leave if your phone is visible, or if you are using a computer to do anything other than take notes.
4. You will be allowed to use a scientific calculator on all exams and most quizzes. You are not allowed to use a cell phone or any other device that can connect to the internet for its calculator in class or on exams.
5. If you have questions about any exam/quiz/homework grade, or you want to appeal the grading of the exam/quiz/homework, you must bring it to me within one week of the first day the exam/quiz/homework was available to be picked up. I am happy to look over your appeal and/or questions and give my feedback in order to benefit your learning.
6. If you do not write both your first and last name on an assignment, you may not receive credit for it.
7. If you cheat on any lab, quiz, exam, or day of clicker questions, you will automatically get a zero for that grade and the incident will be reported to the Dean of Students. Depending on the severity of the cheating, the consequences may be more severe, and I may decide to fail you from the class. Also, if you exhibit any other behavior that are unethical, like offering me a bribe to give you a better grade (even if you later claim you were joking), I will report your behavior to the Dean of Students. Please note that the use (or even just pulling it out of

your pocket) of a cell phone, smart watch, or any other electronic device during any in-class exam or quiz is considered cheating and cause for receiving an automatic zero.

8. If your cell phone or another electronic device belonging to you makes noise (including vibrate) during an in-class exam or quiz, you will lose points on that assignment. Make sure that your devices are on silent during class.
9. The syllabus is not a legally binding contract. As the instructor, I reserve the right to change any portion of the syllabus provided you are given enough notice.

ACCOMMODATION:

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 Union Building, 581-5020 (V/TDD). CDS will work with you and the instructor to make arrangements for accommodations.

If you have any special needs or requests, please let me know. There is a good chance that we find a solution that meets your needs. Please let me know, discreetly, if you have any sort of phobia, anxiety disorder, TBI, PTSD, C-PTSD, or other challenge that would cause psychological harm to be called on in class. While I want students to feel mentally stretched during class, especially while working on problems as a large group, I definitely don't want to cause any human being harm. So, please tell me if that is the case for you and I will confidentially accommodate your request.

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.

CRISIS SERVICES CENTER:

This center offers services Mo-Fr 8 am – 5 pm. If you would like to talk to one of the staff members, please call 801-581-6826 or walk into the Center at 426 Student Services Building (SSB). For more urgent situations and after hours, please go to the University Neuropsychiatric Institute (UNI), 501 Chipeta Way, or to the Emergency Department at the University Hospital.

UNI Crisis Line: 801-587-3000 offers crisis response 24/7, including: crisis support over the phone, a mobile outreach option (MCOT) that will respond to persons in their home, and the Receiving Center where individuals from Salt Lake County can access a safe and supportive environment to help individuals work through their crisis situation. Individuals may spend up to 23 hours at the Receiving Center, at no cost.

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, 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).

CLASSROOM SOCIAL EQUITY:

I strive to be ethical, kind, fair, inclusive, and respectful in my classroom and expect students to behave similarly. Please let me know if there is a name you prefer to be called by. Likewise, please inform me of whichever pronouns you prefer me to use for you. I will put great effort into honoring your request and ask that you correct me if I do happen to make a mistake.

I would greatly appreciate if you would let me know if I inadvertently offend you in any way. I will take corrective action immediately. While I want this semester to be a challenging semester, I do not want it to be a painful semester for anyone.

SAFTTY 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.

IMPORTANT DATES: Be sure to consult the official [Academic Calendar](#) for other important dates and to make sure there are no changes from these dates.

First class.....Tuesday, January 7
Last day to add without a permission codeFriday, January 10
Last day to add/drop or elect CR/NCFriday, January 17
Last day to withdrawFriday, March 6
Spring Break.....March 8 – 15
Last regular class.....Tuesday, April 21

EXAM SCHEDULE: Midterm 1Tuesday, February 18
Midterm 2.....Tuesday, April 7
Final (comprehensive).....Friday, April 24
from 3:30 – 5:30 PM

This is a departmental final, which means all students in all Math 1010 classes, both on and off campus, take the final exam on the same day and at the same time, instead of during the slot that is assigned based on class meeting time. You are required to take it at this time, unless you have multiple finals scheduled for the same time slot. If this applies to you, inform me by the deadline given in class. (Tardy notification of your instructor may result in a penalty on your exam). For all other students, make school/work/family arrangements at the start of the semester to be able to take the common final.