Course Syllabus
MATH 1030, Section 090, Summer 2018
Introduction to Quantitative Reasoning

Instructor Information:
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Communication: You may contact me by e-mail or through Canvas-mail. When e-mailing, please include Math 1030 in the subject line. All announcements for the course will either be posted in quiz format on the Canvas website (these are graded) or sent by Canvas-mail.

Office Hours: I will have office hours on Wednesdays from 11 a.m. to 12 p.m I'm also holding office hours online, through the Canvas conference feature. If attendance is low, after week 3 online, office hours will stop and an additional in-person office hour will be organized.

No appointment is necessary to come to office hours. If the office hour times are inconvenient, please contact me to set up an appointment.

Course Objectives: This course will fulfill the Quantitative Reasoning – Math QA requirement for graduation.

Math 1030 is an application-based course centered around the use of mathematics to model changes in the 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. At the end of the course you 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, make conversions when necessary, and develop 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 facilitate 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: The prerequisite for this course is at least a C in mathematics 980 or 1010, or an Accuplacer (EA) score of 60 or better, or ACT math score of 19 or better, or SAT math score of 500 or better. Students are expected to already have basic algebra skills. *Important Note*: The mathematics department DOES enforce prerequisites for all undergraduate courses. If you were able to register for this class based on your enrollment in the prerequisite course last semester and you did not receive the minimum grade in that course to enter this class, then you will be dropped from this class on Friday of the first week of classes. If you are in this situation, it is in your best interest to drop yourself from this class and enroll in a class for which you have the prerequisites before you are forcibly dropped.

Text: ISBN-10: 1-269-74850-5
ISBN-13: 978-1-269-74850-6
Using & Understanding Mathematics, A Quantitative Reasoning Approach, by Bennett and Briggs, Custom edition for University of Utah (taken from 6th edition)
* Either 6th edition of the full text or custom 3rd edition is fine.

This textbook has been in print for many years. Cheaper copies can often be found online.

Online Materials: Materials for this course can be found on TWO websites:

Canvas https://utah.instructure.com/ Since you are taking this quiz, you have found this site. It is a good idea to save this address, so that you can get to Canvas without going through CIS. Usually once or twice a term, CIS goes down, so the alternative access is useful.

WebWork https://webwork3.math.utah.edu/webwork2/math1030summer2018-90/ This is the homework website. You will receive an e-mail with your login name and password on the first day of class or, if you registered after the first day of the semester, within two business days. It is sent to your U-mail address. If you do not check U-mail regularly, forward this to an address that you do check.

Technology: Some of the course work can be done without a calculator (if you are curious about a particular problem, just ask). However, in order to focus on algebra and not arithmetic, four-function and scientific calculators are allowed, both for homework and exams. On exams, calculators on phones and graphing calculators are NOT allowed.

Help: Contacting me by my e-mail, coming into office hours, or setting up an appointment is the first way to get help. I am happy to talk about individual problems, mathematical concepts, or help you make a study/learning plan. Please seek help early in the term.

If you have a question about a Webwork problem, you can contact me through Canvas or email, or look/post in the Canvas discussion board (good for content questions/ calculation issues).

You can also get tutoring through the following:

- Math Tutoring Center (drop-in tutoring and computer lab). This is free to all students. It is in the underground passage between JWB and LCB, Room 155. See http://www.math.utah.edu/ugrad/mathcenter.html for hours.
- Private Tutoring: University Tutoring Services, 330 SSB (they offer inexpensive tutoring). There is also a list of tutors at the Math Department office in JWB 233.

Structure of Class: This is an online course, but still an intense course. According to the University of Utah, a 3-unit course should have about 3 hours of lecture and 6 hours of outside study/homework time. This means that our online course, will take the average student about 9-10 hours per week. Some students will be able to get by on less, and some students will need more.

This is a summer class, and therefore is accelerated due to its shorter term length. The normal fall/spring semester length is 15 weeks but the summer course has only 12 weeks. Therefore this course will be at a faster pace than your usual fall/spring classes, so please be prepared that.

Each week, we cover specific sections. You can choose when you work on the material in the week (as long as you meet deadlines), but you can't complete the course at your own pace. There is weekly online homework and weekly online quizzes. All materials can be found in the modules on Canvas, except the weekly homework, which is found at WeBWork. There will be two midterms, which you will take at the testing center or with a proctor.

Here is a breakdown of the components in the course and what they are worth.

- **Reading Announcements on Canvas**. Course documents and announcements are given in quiz format and have a short quiz about the content at the end. These"quizzes" begin with "A:..." Completing these is worth 2% of your grade. Suggested due dates are shown, but these can be completed at any time.
- **Reading from your text book**.
- **Watching the video lectures.** They are available through the modules or in both streamable and downloadable versions at http://www.math.utah.edu/lectures/math1030.html
- **Working through the assigned textbook problems** These are not graded, but help students build a foundation for doing the more challenging WeBWork problems. And, they also prepare students for exams.
- **Graded homework problems** on WebWork, due Monday nights at 11:59 pm; are worth 12% of grade; the two lowest scores will be dropped in the grade calculation in the last week of class.
- **Feedback Quizzes** These are given weekly on Canvas; the time limit is 30-40 minutes and there is no pausing; quizzes can be begun between 1 am on Friday and must be submitted by 11:59 pm on Tuesday. They are worth 12% of the grade; the three lowest quiz scores will be dropped in the grade calculation in the last week of the semester. When you finish a quiz, all you will see is your score. On Wednesday mornings, the quiz will be unlocked so that you can see your answers and the Canvas key answers. Solutions will also be posted. Between Wednesday and Friday, you should review your quiz and request retroactive partial credit, if appropriate. Find out more information about quizzes on the announcement quiz about quizzes.

- **Project:** The project assignment will be posted by the second week of classes and due on Wednesday, August 1st. There are absolutely no extensions of the deadline for any reason. The project is worth 14% of your grade. This project is intended to be an in-depth exercise implementing some of the mathematics of the course that will benefit you in your adult life.
- **Exams:** There are two midterm exams, worth 15% each. You must schedule Exam 1 and 2 using the online scheduling tool in Canvas. Exams will be administered at the Uonline testing center (in the Marriot Library), at a satellite testing center (in Sandy, Bountiful, or Murray) or if you are out of area, with a proctor that you set up and register with Uonline. There will be practice material provided prior to each exam. You are allowed a scientific calculator on exams.
- **Final:** The final is comprehensive and worth 30% of your grade. The date and time for Summer 2018 is Thursday August 2nd through Friday, August 3rd.
- **Pre-test**: There is a pre-test which can be taken in Week 1 or 2 of the semester. The pre-test is optional, and you are not graded based on your performance. We use your pre-test, in conjunction with the final, to measure what you learn in this course. If you take it, it will count as a quiz on which you earn 100%. If you do not take it, then you will get a 0 for it, but your three lowest quiz grades will be dropped to mitigate the effect of this.You will need to register for it through the online scheduling tool in Canvas, just as you would for an exam.
- **Extra Credit**: Extra credit, worth up to 4% or more of your course grade, can be earned for participating in online discussions (by asking or answering questions with significant mathematical content), comparing textbook and WebWork problems, or spotting errors in course materials.

Final Exam: There will be a *comprehensive* final exam that is taken at a testing center on either Thursday, August 2nd or Friday, August 3rd.

Grading Policy: Your grade will be based on:

WeBWorK Homework	12%
Quizzes	12%
Announcement Quizzes	2%
Group Project	14%
Exam 1	15%
Exam 2	15%
Final Exam	30%

Grades (Evaluation and criteria): Final letter grades will be determined by overall percentage as follows:

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

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, 162 Olpin Union Building, 581-5020 (V/TDD). CDA 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 and Access.

Tutoring: The Rushing Math Center offers free drop-in tutoring, a computer lab, and study 2 areas for undergraduates. The Rushing Student Center is adjacent to the LCB and JWB. The hours for the Summer semester are: 8 am – 8 pm Monday to Thursday and 8 am – 6 pm on Friday. The tutoring center will open the second week of classes.

Important Dates:

Weekly Due Dates:

- WebWork HW due each Monday at 11:59pm

- Online Quiz each Friday-Tuesday; due Tuesday at 11:59pm, including exam weeks

Exams (Schedule at a time between the dates below):

- Pretest: Week 1 or 2 – Monday May 14 to Saturday May 26
- Exam 1: Week 5 – Monday June 11 to Saturday June 16
- Exam 2: Week 9 – Monday July 9 to Saturday July 14
- Final: Thursday August 2nd - Friday August 3rd (Earlier times are also possible. Details later in the semester)

Other dates:

- Project Due Date: Wednesday August 1st
- Drop date: Wednesday May 23
- Withdraw/audit date: Friday, June 22
- Classes end: Wednesday August 1st

Class policies:

- I reserve the right to modify the class structure and syllabus at any time but I will notify you if and when any changes are made
- If an emergency arises that prevents your from making it to an exam or turning in a homework it is your responsibility to communicate that information to me as soon as possible. I will do my best to accommodate any situation that comes up.
- If you are struggling with a concept please come talk to me or visit the tutoring center as soon as possible. I am more than happy to meet with you outside of my office hours if my schedule permits it.
- I encourage you to work with others on the homework but anything that you turn in must be your own work.
- Regrade requests can only be made the class after the homework/quiz/exam was returned and in writing with an explanation why more credit is due.