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Course Syllabus
Mathematics 1030, Section 005, Fall 2019
Introduction to Quantitative Reasoning
Class Hours: TH 3:40-5:00 PM, BEH S 114

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Instructor: Pinches Dirnfeld, Office: 331 JWB
E-mail: Dirnfeld at math dot utah dot edu

Office Hours: Tuesdays 5:15-6:15 (On days when no one shows up by 6:00 I will leave early unless you email me.)
Thursdays 2:30-3:30 (Or Email me to meet at another time)

Course Webpage: I will post all course materials on Canvas. It will be filed under "modules".

Prerequisites: A "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.
(Note: Math 1030 does not satisfy a Math 1050 or Math 1090 prerequisite.)

Text: *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

Textbook Options

- The least expensive option for the book is to buy it through the Inclusive Access Program. An email will go out to math 1030 students prior to the first day of class with information on what Inclusive Access is and instructions on how to access their digital course materials. If the student decides they don't want the instant access to the course materials they 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 they OPT OUT during the first two weeks of class they will receive a full refund of the course material cost. They will then be responsible for obtaining their 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, they 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-obennett-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.

  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.

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. The course is based on Chapters 1-4, 8,9, and

Chapter 10 (sec. A). **You are required to read each section that we cover.**

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

Learning Expectations: By the end of the semester every 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, 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

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Course Work and Evaluation

Grading Policy: Your grade will be based on:

Homework	10 %
Quizzes	10 %
Project	20 %
Midterm Exams	30% (15% each)
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%

Homework: There will be weekly problem sets assigned each Thursday and it will be due the following Thursday 5 minutes after the start of class . I will only mark the Homework for completeness not for correctness.
I encourage students to work together, however, you must write up the solutions yourself. You should understand how the do every problem and show your work. No one can learn math by reading a book or watching someone solve a problem. The only way to learn math is to work out problems. If you are just copying solutions from your friends you are unlikely to do well on quizzes and exams.
If you have trouble doing a problem you should come to my office hours, go to the tutoring lab, or bring your problem to class.
Late homework will not be accepted. I will drop the lowest three homework scores.
Homework must be stapled. Unstapled homework will be deducted 25 points. Additionally, you bear the risk of losing points if some of your papers are misplaced.

Quizzes: There will be a short quiz every other week (usually on Thursday.) The problems will be very similar to the text or examples that we have done in class; or the assigned suggested homework problems. **No make-up quizzes will be given**, but I will drop the lowest three scores from the quiz grade.

Project: You will have one project to turn in. This will be due the 14th week of classes. Exact date will be written in your daily schedule of lectures. You will be given the list of topics approximately 8-9 weeks before the project is due, and you will work in groups of about 3 students on a topic that you select from the list. We will discuss the format and expectations for the project before you start working on it. Late project will not be given full credit.

Exams: You will have two mid-term 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.

The Final Exam: will be comprehensive/departmental. This date and time is assigned by the University of Utah scheduling office. We will have the final on Thursday, December 12th 3:30 PM –5:30 PM The final exam will likely be in our classroom, but I won't know for certain until later in the semester. If there is a location change, the scheduling office will let me know in advance and I will make an announcement in class during the last few weeks of the semester.

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

Other Policies and Resources

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 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.

LGBT Resource Center:: If you are a member of the LGBTQIA* community, I want you to know that my classroom is a safe zone. Additionally, the University of Utah has an LGBT Resource Center on campus. They are located in Room 409 in the Olpin Union Building. Hours: M-F 8-5pm. You can visit their website to find more information about the support they can offer, a list of events through the center and links to additional resources: http://lgbt.utah.edu/. Please also let me know if there is any additional support you need in this class.

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).

TBA

Safety 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."

Veteran's Center:: If you are a student veteran, the University 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

Math Department Video Lectures:: Video lectures are available at: http://www.math.utah.edu/lectures/math1030.html

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 Fall 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.

Calculators: You will need a calculator for this course. A scientific calculator will be sufficient (Casio fx-260 and TI-30x are both excellent options.) Graphing or programmable calculators will not be allowed on exams. You responsible for your own calculator on exams, the instructor will not provide you with a calculator nor will you be allowed to share one with your classmates during quizzes and exams.

Other Policies:

- It's your responsibility to check canvas for homework assignments and other announcements, as well as your university email.

- Please be respectful in class. We are adults and I expect you to behave accordingly. Examples of disrespectful behaviors include texting or talking on your phone, reading newspapers, listening to music, or talking while I am talking.

- I do not allow computers in my classroom. It has been my experience that having a computer will eventually cause distractions to your neighbors. You can have a tablet as long as you keep it flat on your desk. If I deem your tablet to cause distractions I would ask you not to bring it to class.

- My office hours are merely a guarantee that I will be there. If you want to talk to me you can always email me to set an appointment and I will do my best to accommodate you.

- If a student is caught cheating on an assignment they will receive a zero on that assignment. I may also decide to fail a student depending on the severity of the misconduct. In any case of academic dishonesty, I will report it to the Dean of Students as required by the university rules. **Please note that having a cellphone out or wearing a smart watch during an exam will automatically count as cheating.**

- If you believe that any quiz or exam was graded incorrectly you have to bring it to me within one week after I returned it to the class.

- I reserve the right to make changes to the syllabus as I see fit. If that should occur, I will notify you via email and in class announcements.

Some important dates for this class:

Monday, August 19	First day of classes
Friday, August 23	Last day to add this class without a permission code
Friday, August 30	Last day to drop (delete) classes
Thursday, October 5	Exam # 1
Sun-Sun, October 6-13	Fall break
Friday, October 18	Last day to withdraw from classes
Thursday, November 21	Exam # 2
Tuesday, November 26	Group project due
Thursday-Sunday, November 28 - December 1	Thanksgiving break
Thursday, December 12th 3:30 PM –5:30 PM	Final examination