

Course Information Sheet
Mathematics 1030, Section 06, Fall 2014
Introduction to Quantitative Reasoning

Instructor: Sri Iyengar
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Class Hours: TH 10:45 AM -12:05 PM, ST 205

Office Hours: 12:30-1:30 Wednesday and Friday

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)

Prerequisites: A “C” or better in MATH 1010 (Intermediate Algebra) OR Accuplacer CLM score of 50 or better OR ACT Math score of 23 or better OR SAT Math score of 540 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.)

Course: 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

Homework: Homework problems are assigned for each section. Homework will not be collected, but I strongly recommend that you do these problems.

Quiz: Approximately every two weeks there will be a quiz covering the material that we have done. 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 the lowest two quiz grades will be dropped at the end of the semester.

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.

Grading Policy: Your grade will be based on:

Quizzes	20 %
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%

Calculators: You will need a calculator for this course. A scientific calculator will be sufficient.

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.

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.

Classroom Etiquette: Please turn off your cell phones while you are in class. If your cell phone rings or you are texting, you will be asked to leave.

Some important dates for this class:

26 August	First day of classes
3 September	Last day to drop (delete) classes
25 September	First mid-term exam
12–19 October	Fall break
24 October	Last day to withdraw from classes
20 November	Second mid-term exam
27–28 November	Thanksgiving break
11 December	Last day of classes
18 December 3:30 PM –5:30 PM	Final examination