Syllabus for MATH 1030-301-Spring 2021
University of Utah Asia Campus

Class time: MWF 1:00- 1:50 PM

- Course Name: **Quantitative Reasoning Approach** - Classroom: UAC401 - Instructor: Santosh Pathak - E-mail: s.pathak@utah.edu - Office: U844 - Office Phone: 032-626-6122 - Office Hours: TBA	**Important Dates:** - Midterm 1: April 7 - Midterm 2: May 17 - Final Exam: June 7-10 (TBA) - All other important dates can be seen at https://registrar.utah.edu/academic-calendars/asia20-21.php

Important to Note:
- Print and bring the lecture notes posted on Canvas to the classroom.
- All the exams will be conducted in-person even if the classes are taught online.

Syllabus subject to change: This syllabus is meant to serve as an outline and guide for our course. Please note that I may modify it with reasonable notice to you. I may also modify the Course Schedule to accommodate the needs of our class. Any changes will be announced in class and posted on Canvas.

Technical requirements: If the classes are taught online then
- quizzes will be taken in Zoom. For this, you will need in addition to the steady internet connection a connected camera (on a smartphone or laptop).
- quizzes will be submitted digitally on Canvas, so some form of digitizing technology will be needed. This could be a scanner, but there are excellent alternative scanning apps for smartphones.

- quizzes must be submitted as single PDF files. There are many scanning apps available for Android and IOS, some examples are: https://play.google.com/store/apps/details?id=com.adobe.scan.android&hl=en_US https://apps.apple.com/us/app/adobe-scan-digital-pdf-scanner/id1199564834

Textbook: "Using and Understanding Mathematics: A Quantitative Reasoning Approach" by Jeffrey Bennett and William Briggs (6th Edition).

Lectures Video: https://www.math.utah.edu/lectures/math1030.php. These lecture videos can be very helpful. Please try to watch them if you have time.

Canvas: I will post all the lecture notes, essential information, updates etc. on Canvas. Therefore, it is very important that students regular visit their course webpage on Canvas. In addition, students are required to print the lecture notes and keep the notes with them during the lecture.

Calculator: You will need a scientific calculator for this course. Make sure the calculator you choose has an exponential key (e^x) and a power key (y^x)

Course Description: Math 1030 is a non-traditional, application-based course centered around the use of mathematics to model change in the real world, and the effective communication of these mathematical ideas. The course is primarily intended for students from the Social and Behavioral Sciences, the Heath Sciences, and the Humanities who seek only to satisfy the QA (quantitative reasoning- course A) requirement for the bachelor's degree and who, with the exception of a statistics class, will not take any further mathematics courses at the university. The purpose of the Math 1030 course is to develop skill in quantitative questions from many different areas. The mathematics, linear and exponential models of growth, basic geometric measurements and scaling. The course material is based on Chapters 1-4 and Chapters 8-10 of the text listed above.

Prerequisites: C or better in MATH 1010 (Intermediate Algebra). This means that you should be able to manipulate variable expressions, graph functions, work with simple linear equations, fractions, exponents, and know the basic properties of simple geometric shapes.
(Note: Math 1030 does not satisfy a Math 1050 prerequisite.)

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.

Course Outcomes: At the end of the course a student should be able to:
1. Use Venn diagrams to examine relationship between sets and the validity of simple deductive arguments.
2. Use an appropriate sentence to describe both the absolute and percent change in a given quantity and interpret such statements about the change.
3. Use simple and compound units, making conversions when necessary, and develop accurate comparisons between units.
4. Evaluate the impact of compound interest on simple financial decisions.
5. 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.
6. Compare and illustrate the features of linear and exponential growth using practical examples.
7. 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.

Quizzes: Short quizzes will be given occasionally for first/last few minutes of the lecture in every about two weeks. I will announce the quiz date at least two class periods before they take place. I will count 6 best quizzes towards your final grade.

Midterm Exams: There will be two midterm exams (50 minutes each) on April 7, May 17. Students must bring a valid ID to the exams. Calculators will be allowed.

Final Exam: There will be a two-hours comprehensive final exam on the week of June 7-11. The date for the final will be announced later.

Project: In order to develop the skills of communicating technical information and working with others, you will work in a group of 2-3 (that you form) on a project which is due on **May 24**. You will be given list of topics about 8 weeks before the project is due and you will work in groups 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. Projects will not be accepted after this date, no exceptions. You are welcome to turn them in early, however. Details about the projects will be discussed in class. The project counts 15% of your final grade.

Participation: I encourage students to participate in the learning process. Participation includes your attendance, visiting office hours, participating during lecture by asking and answering questions. In conclusion, it is very important that you show an effort of achieving the objectives of this course.

Grades: Your final grade will be based on the following:

Quiz	15%
Group Project	15%
Midterm Exam 1	20%
Midterm Exam 2	20%
Final Exam	30%
Total	100%

The grading scale for this course is:

A	93% and above	C	[73-77)
A-	[90-93)	C-	[70-73)
B+	[87-90)	D+	[65-70)
B	[83-87)	D	[60-65)
B-	[80-83)	D-	[55-60)
C+	[77-80)	E	Bellow 55%

<u>COVID Related Absences</u>: If you have COVID-19 symptoms, including fever or respiratory symptoms such as cough, phlegm, sore throat, and nasal congestion, you should notify your instructor immediately, call the KCDC for testing guidance, and stay home based on the KCDC's directive. You can return to class if you are clear from COVID-19 symptoms. In order to be excused from your courses, you will need an official medical certification. If you will be absent from an exam, you must email the Assistant Dean of Students at kevin.darco@utah.edu prior to the exam to get the approval for your absence.

<u>Self-quarantine Statement:</u> The University of Utah Asia Campus expects regular attendance at all class meetings. Given the current situation with COVID-19, we have created the following guidelines.

1. If a student has completed less than 50% of the course and is required to self-quarantine, we suggest that the student withdraw from the course. In this situation, all tuition will be refunded with appropriate medical documentation
2. If a student has completed 50-75% of the course and is required to self-quarantine, the Assistant Dean of Students Office will work with the faculty and student to determine the best scenario. If the decision is to withdraw from a course, all tuition will be refunded with appropriate medical documentation.
3. If a student has completed over 75% of the course and is required to self-quarantine, the student and faculty will work together to ensure that the student is able to complete the course. If the student is unable to finish all coursework during the course, a student may receive the mark "I" (incomplete) and work to complete all remaining coursework in consultation with the instructor.

 <u>Zoom Session Statements:</u>
If this course must host Zoom sessions, the University of Utah Asia Campus requires that all students turn on their cameras during the entire course and post their full name in English. We ask that students try to locate a quiet space which will allow for ample social distancing and that students not wear a mask if possible. If a student has financial difficulty obtaining the appropriate equipment for online courses, the UAC can help provide resources.

<u>Student Support:</u> Please speak with the instructor if there is any additional support you would like to discuss for this class. The University offers many

support services – some are listed below. 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.

Plagiarism: Students must adhere to the standards of academic integrity for this course. In particular, assessments that are not specifically labelled as being group work should be completed without outside help. We encourage you to make use of other internet sources in the learning process and for assistance on homework, but online resources are not to be used during quizzes or exams. Incidences of academic dishonesty will result at a minimum of a zero grade for that particular assignment, or possible stricter sanctions in accordance with University policy (see below).

Academic Misconduct:
Academic misconduct includes cheating, plagiarizing, research misconduct, misrepresenting one's work, and inappropriately collaborating. Definitions of these and other terms can be found in the Student Code at http://www.regulations.utah.edu/academics/6-400.html. The Student Code (at section 6-400(V)) also specifies the required procedures that must be followed when disciplinary actions are taken in response to instances of academic misconduct. For students enrolled in degree programs in the College of Architecture + Planning, a second occurrence of academic misconduct will result in the student's dismissal from their academic program.

The Americans with Disabilities Act: The University of Utah Asia Campus seeks to provide equal access to its programs, services, and activities for people with disabilities. If you will need accommodations in this class, reasonable prior notice needs to be given to the UAC Office of the Dean of Students, 804 Utah Building, 032-626-6002. The UAC Office of the Dean of Students will work with you and the instructor to make arrangements for accommodations. All written information in this course can be made available in an alternative format with prior notification to the UAC Office of the Dean of Students.

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 UAC Office of the Dean of Students, 804 Utah Building, 032-626-6002. For support and confidential consultation, contact the UAC Mental Health Counseling, 3052 Multi-complex Building, 032-626-6142.

Student Code of Conduct: All students are expected to maintain professional behavior in the classroom setting as outlined in the Code of Student Rights and Responsibilities, Policy 6-400 of the University Regulations Library (http://www.regulations.utah.edu/academics/6-400.html).

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 Asia Campus. For helpful resources, contact the UAC Mental Health Counseling Center; asiacampus.utah.edu/mental-health-counseling-center/; 032-626-6142.

Language Policy: The University of Utah Asia campus is committed to providing and fostering an environment that is safe and free from prohibited discrimination. The following language policy applies to all academic and administrative units of the University and to all members of the University community, including faculty, staff, and students. English is recognized as the official language of instruction, assessment, and curriculum. In addition, English is the official language for all administrative and business related matters of the University.