

Syllabus for MATH 1030
Introduction to Quantitative Reasoning
Fall 2008

Course: Lecture: TTh 4:00pm – 7:00pm, Murray 108

Lecturer: Tim Carstens

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Please don't *ever* email me Microsoft Office documents! Convert them to PDF first.
Web Page: <http://www.ninj4.net/>
Office Hours: No official office hours. Email me if you want to meet, and we can establish a time and location.

MATH 1030: This is an applications-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 (section A). Students are expected to read each section that we cover.

Prerequisites: C or better in Math 1010 (Intermediate Algebra), or at least a score of 23 on the math portion of the ACT. Students 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 that Math 1030 does *not* satisfy a Math 1050 or Math 1090 prerequisite.

Text: *Using and Understanding Mathematics: A Quantitative Reasoning Approach*, Jeffrey O. Bennet and William L. Briggs (fourth edition, custom version).

Material to be Covered: Our general program is to find ways in which mathematics can help us analyze situations that would otherwise be difficult to understand. We will focus on

dissecting logical arguments, building intuition about how to physically interpret numbers, and on applying these ideas in ways that can make our lives better.

Mathematics is an old and very diverse area, which spans from the highly theoretical to the highly practical. We will be focusing on the practical side of things. Throughout the class we will look at contemporary examples of how mathematics has been used to accomplish wonderful things, with the aim of taking the mystery out of these developments.

Homework and Quizzes: Since this class is only running for half of the term, we will be moving at an accelerated pace. This is a perfectly reasonable thing to do provided you stay on top of the work. Each class will involve a problem session, which is an opportunity to work on problems with peers and the instructor. Due to the pace we will be moving at, homework will be assigned after each class. Its purpose, put bluntly, is to inculcate the methods. Homework will draw on material from the day's lecture, as well as material from previous lectures.

We will have a short quiz at the beginning of each class.

Project: Math-1030 students traditionally complete a project towards the end of the semester. Since our term is so short, our project will have be in a slightly different format than usual.

Students will arrange into groups of 3. Each group will pick one of our lecture topics and present a review of the topic 2 classes after the initial lecture (a schedule of the lectures, as well as the review topics, is given on the course website at <http://www.ninj4.net/math1030/>). The review will be a 30 minute presentation, and will include the relevant definitions and sample problems. It will also include a handout of practice problems, along with a solution guide. Students will evaluate themselves and their peers on their contributions to the project.

Exams: In addition to the final, there will be 2 exams during the semester. Absence from an exam will be excused only if the student can provide verifiable and convincing evidence that he/she has a significant illness or serious family crisis that will prevent him/her from attending. Except under extremely unusual circumstances, the student must inform the instructor in advance of the missed test. The student is expected to promptly make arrangements with the instructor to make up the test.

Final Exam: There will be a comprehensive final on a date to be announced.

Grading:

Grades will be based on the following:

Homework and quizzes	20%
Project	20%
Exams (2)	30% (15% each)
Final exam	30%

Calculator: Students will need a calculator for this course. A scientific calculator will be sufficient, but graphing calculators are allowed. You will be able to use your calculator on exams and quizzes.

Absences: I will not change your grade based on your attendance. However, given our accelerated pace it is *highly improbable* that your grade can survive missing a lecture.

If you are late to class, please come in as quietly as you can. Please don't leave class early unless it is an absolute necessity, since it is quite distracting to have people moving about.

Cheating: Cheating will not be tolerated. Students found to be cheating on an exam or project will be given *no credit* with *no exceptions*.

Expectations: I acknowledge that some students are in situations where they cannot turn off their cell phone. Please, however, put your cell phone in "vibrate" mode before coming to class. If you *must* take a call, please leave the room to do so. Please avoid sending text messages in class.

I tend to have a relaxed classroom. I am certain this atmosphere will be even stronger in our class this summer. That said, we have a great deal of work to do, and anything which undermines our effort towards this will not be tolerated.

ADA Statement: The Americans with Disabilities Act requires that reasonable accommodations be provided for students with physical, cognitive, systemic learning, and psychiatric disabilities. The student needs to have such a disability approved by the Disability Service Office (162 Union, 581-5020) in order to have accommodations provided. The instructor will be informed about such a disability and approved accommodations at the beginning of the semester.

Tutoring: The Rushing Math Center offers free drop-in tutoring, a computer lab, and study area for undergraduates. The Rushing Student Center is adjacent to the LCB and JWB. The hours for the Summer semester are: 8am - 8pm Monday - Thursday, and 8am - 4pm on Friday. The tutoring center will be open by Wednesday 20 May.

Withdrawals: Consult the University calendar for withdrawal dates.