

Math 1210 Calculus I

Course Organization

Sections 3 and 4, Spring 2003

1210-3:	MTWTF	9:40-10:30 a.m.	JWB 335
1210-4:	MTWTF	11:50 -12:40 p.m .	ST 205

Instructor

Nick Korevaar
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Office hours

MTWTF 10:40-11:00, 12:50-1:10
and by appointment

Course Assistant

An H. Le
JWB 206
581-7314
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Office hours and problem session

to be announced

Course home page <http://www.math.utah.edu/~korevaar/1210spring03>

Texts *Calculus*, eighth edition, by Varberg, Purcell and Rigdon
Introduction to Polynomial Calculus, notes available course home page.

Overview

This course is the first in a three-semester sequence on the Calculus: Mathematics 1210, 1220, 2210. What is Calculus? It is part of the mathematical foundation with which science can model the world. Isaac Newton (1642-1727) was one of its co-discoverers, and his aim was to understand the physics he saw in the natural world, such as planetary motion. A beautiful quote of Galileo, from 1623, anticipates the mathematics that has followed:

Philosophy is written in this grand book, the universe, which stands continually open to our gaze. But the book cannot be understood unless one first learns to comprehend the language and read the letters in which it is composed. It is written in the language of mathematics, and its characters are triangles, circles, and other geometric figures without which it is humanly impossible to understand a single word of it.

The central difference between Calculus and Algebra is the notion of change. Whereas the letters x, y, z , etc. are used to represent "unknowns" in Algebra, in Calculus they are interpreted as "variables": all situations are viewed as changing (potentially or actually), and the purpose of the Calculus is to be able to make predictions based on the laws of change of the variables. This will become clearer as we progress.

Prerequisites

The formal prerequisites listed in the catalog are: Math ACT score of 28 or grade of C or better in MATH 1050 and 1060. Informally, you should know that in order to succeed in Calculus you must be proficient in Algebra, for once the principles of Calculus are applied, the steps toward solution of a problem are algebraic. Many of the ideas of Calculus are based on geometry, so a strong background in this is also important for students of Calculus. Hugo Rossi, who coordinates our Calculus sequence and whose notes I am plagiarizing to create this document, has made a diagnostic test which I encourage you to take if you are unsure whether you are ready for Math 1210. You can download this test (and its answers) from <http://www.math.utah.edu/online/1210>

Grading

There will be 3 in-class exams, each worth 15% of your grade. These exams and the final exam are closed book and closed-note, and graphing calculators will not be allowed. Homework will be internet-based, using the program known as WeBWorK, and will count for 25% of your grade. The final exam counts for the remaining 30% of your course grade.

Students are urged to work together as much as possible to understand course material, and to take advantage of the Rushing Mathematics Student center where tutors are available Monday through Thursday, 8 AM to 8 PM and on Friday 8 AM to 4 PM. You can find more information of use to undergraduate math students at the link <http://www.math.utah.edu/ugrad>.

The Americans with Disabilities Act requires that reasonable accommodations be provided for students with physical, cognitive, systemic, learning, and psychiatric disabilities. Please contact me at the beginning of the semester to discuss any such accommodations you may require for this course.

Calendar

Monday, Jan 6:	First class
Wednesday, Jan 15:	Last day to drop (delete) classes, by phone or web. Class will not appear on transcript.
Wednesday, Feb 5:	Exam 1
Friday, Feb 28:	Last day to withdraw from classes. A W will appear on your transcript for these courses.
Monday, Mar 10:	Exam 2
Friday, Apr 11	Exam 3
Wednesday, Apr 23	Last day of classes
Tuesday, Apr 29	Final Exam for section 3, JWB 335 class, 8-10 a.m.
Wednesday Apr 30	Final Exam for section 4, ST 205 class, 10:30-12:30 p.m.