



## Syllabus of Math21a, Fall 2008

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<b>Math21a: Multivariable Calculus</b>	This course extends single variable calculus to higher dimensions. It provides vocabulary for understanding fundamental equations of nature like weather, planetary motion, waves, heat, finance, epidemiology, or quantum mechanics. It also teaches important background needed for statistics, computer science, bioinformatics, etc. You learn tools to describe curves, surfaces, solids and other geometrical objects in three dimensions and develops methods for solving optimization problems with and without constraints. The course prepares you for advanced study in other fields of mathematics and its applications. Furthermore it sharpens your abstract thinking and problem solving as well as visualization and computing skills.
<b>Lectures:</b>	These course offers lectures at MWF 9 AM, MWF 10 AM, MWF 11 AM, TTh 10-11:30 AM, TTh 11:30-1 PM. This course is taught in sections rather than in a large lecture. This allows you to get involved more and to ask questions during lecture. CA's lecture and CA problem sessions will be listed <a href="#">here</a> .
<b>Prerequisites:</b>	Math 1b or equivalent
<b>Course change fees:</b>	All course change fees are waved for students who change between Math 21a, Math 23a, Math 25a and Math 55a until the 5'th Monday of the term.
<b>How to Sign Up:</b>	Input your time preferences from Monday, Sep 15 to Wednesday, Sep 17 2008. On the <a href="#">sectioning and advising page</a> from the Mathematics department
<b>Introductory Meeting:</b>	Tuesday, Sept 16, 2008, Sci Center C, 8:30 AM.
<b>Lectures start:</b>	Mon Sep 22 for MWF sections, and on Tue Feb 23 for TTh sections
<b>Course Head</b>	<a href="#">Oliver Knill</a> Office: Science Center SC-434 Email: <a href="mailto:knill@math.harvard.edu">knill@math.harvard.edu</a> Office hours: Tue/Thu 4:30 to 5:30
<b>Text</b>	Multivariable Calculus: Concepts and Contexts.3" by James Stewart: we use the third edition. This book is used by all sections. The ISBN of the book is 0-534-41004-9. You find a copy also in the Cabot library on reserve.
<b>Math Question Center MQC</b>	The <a href="#">Math question center (MQC)</a> is open Sundays - Thursdays 8:30 - 10:30 pm (with occasional breaks for holidays). The MQC for Math21a and Math21b is in Science Center 216.