

# Topics in Advanced Calculus (MAA 5210) ☺ Fall 2005

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<b>Text</b>	Advanced Calculus, 3rd Edition, Angus E. Taylor, W. Robert Mann ISBN: 0-471-02566-6
<b>Classroom and times</b>	MAP 108, Monday and Wednesday, 18:30-20:20
<b>Instructor</b>	Dr. Piotr Mikusinski (Mee-koo-sheen-ski)
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<b>Office</b>	MAP 202E
<b>Office hours</b>	Monday and Wednesday, 17:30-18:30 Tuesday and Thursday, 15:30-16:30

Your grade will be based on quizzes, weekly homework assignments, a midterm test and a three-hour comprehensive final.

Quizzes	10%
Homework	40%
Midterm (October 12)	20%
Final (December 7, 19:00-21:50)	30%

## Tentative syllabus

Fundamentals of Elementary Calculus (quick review), The Real Number System, Continuous Functions, Extensions of the Law of the Mean, Functions of Several Variables, The Elements of Partial Differentiation, General Theorems of Partial Differentiation, Implicit-Function Theorems, The Inverse Function Theorem with Applications, Point-Set Theory, Fundamental Theorems on Continuous Functions, Uniform Convergence, Power Series, Improper Integrals.