



MA 200 Aug 3:1

Multivariable Calculus

Instructor

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Teaching Assistant

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Department: Mathematics

Course Time: 11:30 to 1:00

Lecture venue: LH IV

Detailed Course Page: <http://math.iisc.ac.in/~gudi/teaching.html>

Announcements

Brief description of the course

See the web page of the course:

<http://math.iisc.ac.in/all-courses/ma200.html>

Prerequisites

Basic real Analysis

Syllabus

Functions on \mathbb{R}^n , directional derivatives, total derivative, higher order derivatives and Taylor series. The inverse and implicit function theorem, Integration on \mathbb{R}^n , differential forms on \mathbb{R}^n , closed and exact forms.

Green's theorem, Stokes' theorem and the Divergence theorem.

Course outcomes

Students develop knowledge in the real analysis of multivariable functions. Differentiation, Integration and some results in integral calculus.

Grading policy

2 assignments (20%)

1 midterm (30%)

1 endterm (50%)

Assignments

Resources

1. Rudin, Principles of Mathematical Analysis ,McGraw-Hill, 1986.
2. Spivak, M., Calculus on Manifolds ,W.A. Benjamin, co., 1965.