

92.503

Mathematical Analysis

Dr. Charles Byrne

Course Overview

Instructor: Charles Byrne

Overview:

The term "mathematical analysis" is used to describe the rigorous and systematic study of calculus, including its foundations and its extensions. Since this course is in the Teacher Option program we shall also include discussion of the historical development of the calculus, some of its applications and issues related to the teaching of calculus at the secondary and college levels.

Intended audience:

The course is designed for current and prospective secondary level mathematics teachers. It is assumed that the student has had a three semester calculus course.

Texts and readings:

The required text is:

Silverman *Essential Calculus with Applications* Dover, 1989.

Rosenlicht *Introduction to Analysis*, Dover, 1986.

Format:

There will be one three-hour lecture per week. Assigned problems from the texts will be done in a notebook, to be collected periodically. Grades will be based on homework and class participation.