

Math 226 Limits and Infinite Series Spring 2011

Instructor	Dr. Amites Sarkar
Text	We will use some notes written by Professor Read
Class meetings	MTRF 1pm BH 103
Calculator	TI-86 or TI-89

Course content

The first part of the course will deal in a rather formal way with the concept of limit in various contexts – the Riemann integral as a limit of sums, the limit of a function at infinity and at a point, and the limit of a sequence of real numbers. In the second part, we will study infinite series, using the material from the first part of the course.

Math 226 is intended to be a transitional course between the intuitive treatment of limits in calculus and the much more formal and abstract approach of mathematical analysis that begins in Math 312. I will aim to make limit concepts as concrete as possible by giving you specific problems to compute. I'll also give you many opportunities to practice writing formal mathematics.

For many of you, this will be your first introduction to formal arguments in mathematical analysis. You will be asked to do very different things than is usual in calculus courses, and you should be aware that study methods which work well in calculus courses may not work well here; success in this course is likely to depend on how well you adjust to this. I will discuss this in class.

Relation to overall program goals

Among other things, this course will (i) enhance your problem-solving skills; (ii) help you recognize that a problem can have different useful representations (graphical, numerical, or symbolic); (iii) increase your appreciation of the role of mathematics in the sciences and the real world; (iv) inform you about the historical context of the area of mathematics studied.

Exams

Midterm 1	Friday 22 April
Midterm 2	Friday 20 May
Final	Monday 6 June 1–3 pm

Grading

The midterms will be worth 20% each, the final will be worth 40%, and there will also be written work to hand in, about once a week, which will make up the remaining 20%. However, the written work is much more important than this suggests, since **you cannot learn mathematics just by watching other people do it.**

If you feel too ill to take an exam, don't take it, but bring a doctor's certificate to me when you feel better and I will make arrangements.

Office hours

My office hours are 10–11 on Mondays, Tuesdays, Thursdays and Fridays, in 216 Bond Hall. My phone number is 650 7569 and my e-mail is amites.sarkar@wwu.edu