

Instructor	Amites Sarkar
Text	Calculus: Single Variable (4 th ed.) Hughes-Hallett et al.
Calculator	TI-86 or TI-89

Course content

This course is an introduction to differential calculus. The discovery of calculus in the seventeenth century transformed science and changed the world. For instance, most of the laws of physics are differential equations.

Calculus is also a beautiful subject, although it is a bit tricky to learn because you first have to master the concepts of **function**, **continuity** and **limit**. After that comes the key notion of **derivative**. Here, it is not enough to memorize the rules. You have to understand intimately what is going on.

Another aspect of the course involves computing derivatives of functions by hand, without the use of a calculator (see below). Finally, we will see some applications of differential calculus to physics, biology and economics.

Tests

Test 1	Tuesday 9 October
Test 2	Thursday 25 October
Test 3	Monday 12 November
Test 4	Thursday 29 November
Exam	Wednesday 12 December 8–10am

Tests 1–4 will be on Chapters 1–4 respectively, although Test 4 will only cover the first half of Chapter 4. You may use a calculator for everything **except Test 3** (see above).

Grading

The exam will carry 100 marks, each of the tests will carry 50, and there will be 10 weekly homework assignments, each carrying 10 marks, making 400 in total. The questions on the tests and the exam will be broadly similar to those in the homework assignments. Some of the questions will be hard but the grading will be generous: approximately 70% (280) for an A, 60% (240) for a B and 50% (200) for a C.

Office hours

My office hours are 9–10 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