

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

### Course content

This course is an introduction to integral calculus. I will assume familiarity with differential calculus, although I will provide a short review at the start.

There are many aspects of integral calculus. In some sense the (definite) integral is a bit like a sum, although it can also be seen as a type of average. Perhaps the most concrete interpretation of it is as the area under the graph of a function. However, much of its importance stems from the following fact: **integration is the reverse of differentiation**. All these aspects, as well as techniques for integration and applications of integration, will be studied in detail. We will cover most of Chapters 5 to 9 of the book, although I have yet to decide the exact sections.

### 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

<b>Midterm 1</b>	Friday 1 February
<b>Midterm 2</b>	Friday 29 February
<b>Final</b>	Tuesday 18 March 8–10 am

### Grading

The midterms are each worth 20%, and the final is worth 40%. In addition there will be 10 weekly homework assignments worth 2% each. 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