

$$\frac{d}{dx} \sin x = \cos x$$

# Calculus I



$$\int x^n dx = \frac{x^{n+1}}{n+1} + C$$

## SYLLABUS

### Instructor

Stefan Heinz,  
Office hours

Ross Hall 214, 766-4203, [heinz@uwyo.edu](mailto:heinz@uwyo.edu)  
M 6:00-6:50 pm, W 1:00-1:50 pm, F 1:00-2:50 pm  
Also available by appointment, and often by simply dropping by.

### Class Meeting

MTWF 12:00–12:50 pm in EN 3110

### Textbook

James Stewart, *Calculus Concepts and Contexts*, 2<sup>nd</sup> ed., Brooks/Cole, 2001.

### Grading Scheme

10%	<b>Computer Lab</b>
25%	<b>Homework</b>
10%	<b>Term Test #1</b>
10%	<b>Term Test #2</b>
10%	<b>Term Test #3</b>
15%	<b>Gateway Exam</b>
20%	<b>Final Exam</b>

### Homework:

Homework is the most vital part of this course. Mathematics, more than most subjects, is one which you learn not by listening and absorbing, but by trying out yourself. The learning of mathematics is also more sequential than that of other subjects ... so all the more need to be regular in doing problems yourself! Homework assignments will be assigned approximately once per week, and will be submitted to me on the specified due date (usually after 3–6 days), at the end of class. I will not grade all of the assigned problems on any given problem set, but rather just a few which I will select myself for evaluation. It is fine for you to discuss the homework with other students. However, please do not copy anyone else's work directly. Copying may adversely affect your grade; but more importantly, of course, you won't be adequately preparing yourself for the tests in this way.

## Tests:

In addition to the Gateway Exam (described below), there will be three term tests and one final exam, all of which are 'closed book'; however, you will be permitted to use a handheld calculator and one 'cheat sheet' (one 8.5x11 inch sheet with information written on one side in your own handwriting). Shared calculators or other aids during tests and the exam, is not permitted. Term tests will cover a specified unit of material only, but the final exam will be comprehensive. Later during the semester we will fix dates for the term tests. The final exam will be held at 1:15-3:15 pm on Thursday, May 5, at a location to be announced later.

Make-up tests, for those who miss tests, will only be granted in cases of verifiable illness or the most extreme circumstances (at my discretion). Please contact me in advance of such a situation if possible, or leave a message with the Math Department (766-4221). Even in legitimate cases, the make-up test will be harder than the original test.

**Gateway Exam:** Our course emphasizes depth of understanding of calculus, rather than facility with handling drill-type problems. However, in order to ensure that all students achieve a minimum level of "basic skills", each student in Math 2200 is expected to pass a Gateway Exam focusing on pure and simple drill. No calculators or help sheets may be used on this exam, and a near-perfect score is required in order to pass, with partial credit being awarded very sparingly. The initial Gateway Exam will be given during the week of March 22, but retakes will be available outside of class time for the remainder semester. The penalty for failing to pass the Gateway Exam will be the loss of a full letter grade for the course.

**Computer Labs:** On four days during the semester, you will go to the Computer Classroom in EN 2106 rather than our usual classroom. Tentative dates for the labs are Jan. 25, Feb. 1, Feb. 22 and Apr. 19, all of which are on Tuesday. In these labs, you will be introduced to the MAPLE software, which will supplement the lectures and facilitate your understanding of calculus. In many instances, this software may also be used to check your homework solutions.

## Tentative Schedule:

Chapter	Days	Topics
1	8 classes	<b>Precalculus Review</b>
2	12 classes and 1 lab	<b>Limits and Derivatives</b>
3	10 classes and 1 lab	<b>Techniques of Differentiation</b>
4	10 classes and 1 lab	<b>Application of Differentiation</b>
5	4 classes and 1 lab	<b>Introduction to Integration</b>