

**Math 281** (Calculus III, section 4)

Mon, Wed, Fri, 12:00–12:50pm

Bruner Hall, Room 126

Fall 2000

**Jeff Norden**

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*Hours:* Mon, Wed 2–3pm, Fri 1-2pm

and by appointment

We will cover chapters 11 thru 13 and some of chapter 14 in “Calculus” by James Stewart (*third* edition). Additional notes will also be handed out several times during the semester. The notes will help to clarify some of the material in the text, and may also introduce a few extra topics. You are responsible for the material both in the text and from the notes—both will be covered on the tests and exams.

There will be three in-class exams during the semester. The exams are scheduled for the following dates:

EXAM #1: Friday, September 22

EXAM #2: Friday, October 27

EXAM #3: Friday, December 1

All the exams are scheduled for Fridays. If possible, we may move some or all of the exam dates to the previous Thursday evening in order to remove time pressure. This will be discussed in class, and will only be done if everyones schedule can be accommodated.

In addition, there will be several quizzes and/or take home assignments (all will be announced in advance).

Your grade will be computed as follows:

Total of the three exams = 50% of your grade

Quizzes and assignments = 20% of your grade

Final exam = 30% of your grade

If you must miss an exam or quiz for some pressing reason, be sure to talk to me *beforehand*. The final is scheduled for Wednesday, December 13, from 3:30–5:30pm.

**EXTRA CREDIT:** I may give a few extra-credit problems. They are mostly for your own enjoyment. Extra credits are totaled separately, and will *not* effect your class average. If your final average falls near a borderline and you have some extra credit, then you will get the higher grade.

### Some (potentially) helpful notes:

Some students say that Calculus III was their hardest calculus course, while others find it to be the easiest semester of the three. It is certainly different from the first two semesters in several ways.

For one thing, we will be learning “brand new” concepts instead of just expanding on old ones. Calculus I might also have been like this, except that a great many students are introduced to the derivative and integral in High School. So it will be more important this semester to try to “get the big picture” behind these new ideas than it will be to memorize a bunch formulas and special cases.

Another difference is that we will be working quite a bit in three dimensions, and you may need to improve your ability to imagine and visualize in 3D. We all vary in our ability to draw 3D on paper or the blackboard (I’m only so-so). But the important thing is the ability to see the 3D picture “in your head.” We have a new math department computer lab this year, and we will spend a few class sessions looking at computer generated 3D graphs. This will certainly be fun, but hopefully it will also help you to develop your 3D imagination.

A final difference is that we only meet three days a week instead of five. This is probably a welcome relief (for me as well!). But it also means you will need to find the discipline to do more work on calculus on your own, and you should come to my office hours if you have questions which we don’t have time to answer in class.

You should have already learned this by now, but it is worth repeating: working lots of homework problems is absolutely *essential*. Calculus is not a subject that can be mastered by simply attending class and reviewing your notes (although this is quite important also).

Finally, there are some topics which our textbook covers in a somewhat less than ideal fashion. I will periodically hand out additional notes on these topics to help clarify things, as well as additional homework problems on these topics. Since I am still working on these notes, I will welcome any feedback or criticism you may have on them. You can help yourself to understand them better in this way, and also make life easier for the generations of students which will be following you.