

## MATHEMATICS 251: WINTER QUARTER, 2008

**Instructor:** N. Christopher Phillips

**Exceptions:** The course will be taught by substitutes on W 16 January, F 18 January, and the week of 28 January–1 February.

**Office:** 105 Deady.

**Office Hours:** MTu 9:00–9:50 am; W 1:00–1:50 pm; **or by appointment.**

**Exceptions:** W 9 January: 10:00–10:50 am, not 1:00–1:50 pm. Also, use the substitute’s office hours while I am away.

**Please knock.** I have found it necessary to keep my office door closed, usually even during office hours, because of my location. Otherwise I get asked all the time where to find nonexistent rooms or the Math Department office.

**Email:** [ncp@darkwing.uoregon.edu](mailto:ncp@darkwing.uoregon.edu)

I do not accept attachments (except by prior arrangement), Microsoft Word documents, html (web) code, messages containing binary characters, or encoded text messages. Send plain text (7 bit ASCII, also called US ASCII) only. (Use only characters found on a standard keyboard; no accents, curved quotation marks, etc.) See <http://darkwing.uoregon.edu/~ncp/email.html>.

I will give short replies to emailed questions. I don’t type at a reasonable speed, so I will rarely answer complicated questions by email. Please come to office hours instead.

**WWW:** <http://darkwing.uoregon.edu/~ncp>

Follow the link to Math 251.

Copies of various course materials will be posted here, in a variety of formats. The midterms and final from a previous time I taught this course, with complete solutions, have already been posted.

**Textbook:** Stewart, *Single Variable Calculus: Early Transcendentals*, 6th edition. Also requires WebAssign (“Enhanced” version).

**Class time and place:** CRN 23096: MTuWF 8:00–8:50 am; CRN 23098: MTuWF 11:00–11:50 am; both in 307 Deady.

**Homework:** Contribution to final grade: approximately 15%.

There will be two kinds of homework. I will drop the lowest homework score of each kind, except for the first week assignments (which are worth less). Homework scores will not be curved.

**Paper assignments** will be turned in to me at the beginning of the class period in which they are due. Read the separate homework instructions sheet; here is a brief summary of the most important points:

- Staple pages together. Don't fold or tear corners or fold in half.
- If you cooperate with someone else, that person's name must appear below yours.
- *Simplify all answers.*
- Show your work.
- Use correct notation. (In particular, *use enough parentheses.*)

Normally I will go over homework just after it is due. If there are many questions, I will not be able to answer all of them in class. Come to my office hours if your difficulties have not been resolved!

**Assignments using WebAssign** will be done on the internet. To get started, go to Blackboard (<https://blackboard.uoregon.edu>), choose the course, click on "Course Tools" (on left), then click on "WebAssign" at the bottom. Unless your book already came with one, you will eventually need to buy an access code, either from the bookstore or online (maybe cheaper). Be sure to get the "Enhanced" version.

Advantages of WebAssign:

- All your work gets graded.
- Grading is done quickly.
- Multiple attempts may be allowed.

Disadvantages of WebAssign:

- No partial credit.
- Only the final answer is graded. (But many graders do this anyway.)
- WebAssign is picky about format (but this is something you will have to get used to anyway).

Full instructions are at <http://www.webassign.net/guide/index.html>. Not all this is relevant. In particular, in Section 5 you only need 5.9, 5.11, and 5.13; in Section 6 you only need 6.1 and 6.4. None of the features in Sections 7 and 8 are enabled, although "Forums" could be. To ask me questions, email me directly. In Section 9, the Safari browser also seems to work fine.

Some warnings:

- WebAssign requires JavaScript. If you care about browser security, and especially if you are using Internet Explorer, be sure to turn off JavaScript after each session.
- Generically, use "NONE" for things that don't exist (such as some limits) or questions that are not applicable (such as if the question asks if the function is linear and, if so, what the slope is, but the function isn't linear).
- For  $\pm\infty$  use "INFINITY" and "-INFINITY".
- Variables are *case sensitive*.

- Use  $\exp(1)$  for  $e$  and  $\exp(x)$  for  $e^x$ .
- Use the link for symbolic formatting help if needed.
- Some questions will allow many attempts, some very few. To check, click on “Show Details”.
- Be sure to log out of WebAssign after use!

Note that no features of BlackBoard will be used other than its link to WebAssign.

**Three midterms:** Contribution to final grade: approximately 17% each, 51% total.

Two versions of Midterm 0 will be given, one on Friday 11 Jan. (week 1) and one on Friday 18 Jan. (week 2); see special information below. Midterm 1 will be Friday 1 Feb. (week 4) and Midterm 2 will be Friday 29 Feb. (week 8). Both will cover material through the homework collected the previous Wednesday.

*Special instructions for Midterm 0:* It will be review; only 20 minutes long. For those who know the material of the prerequisites, it should be an easy way to start the quarter with a high grade. See the sample distributed on the first day of classes, and *read its instructions*. Note in particular that calculators and note cards are not allowed, that there is no partial credit, and that it is graded on an absolute scale.

**Final Examination:** Contribution to final grade: approximately 34%. However, *the course grade will not be more than one letter grade above the final exam grade*.

Final exam times: for the 8:00 am section, Wednesday 19 March, 10:15 am–12:15 pm, room 307 Deady; for the 11:00 am section, Friday 21 March, 10:15 am–12:15 pm, room 307 Deady. I will consider extending the time for the final exam to 1:00 pm on those days; this will be decided later in the quarter. I keep originals of the final exam, but will give out on request a copy of your exam.

Subject to availability of space, people in one of my sections may take the final exam with the other section. Do **not** count on this! If you are in the 11:00 section and need to leave Eugene before Friday afternoon to go home for the holidays, switch **now** to a section of Math 251 at a different time.

**Exam policies** for all exams except Midterm 0:

All exams are *cumulative*, although they will usually emphasize the most recent material. All exams will cover material through the most recently turned in homework. They will permit one  $3 \times 5$  file card and a graphing calculator.

At least 80% of the points on each of Midterms 1 and 2 and on the final exam will be based on homework problems, on problems on separate supplementary lists (including sample exams), and on problems from all versions of Midterm 0. Note that *numbers may be changed* in these problems. Similarly variable names, function names, and names of people etc. in word problems may be changed. Thus,  $f(x) = 2x^3$  could become any of  $f(x) = -4x^3$ ,

$f(x) = 2x^{-4}$ ,  $g(x) = 2x^3$ , or  $f(t) = 2t^3$ . Note that such changes might turn a local maximum into a local minimum or result in other such reversals.

Complaints about the grading of any exam must be submitted in writing by the beginning of the first class period after the class in which that exam is returned.

**Extra credit:**

There will probably be extra credit problems on the midterms and final exam. They will only be counted if you get a grade of B or better on the main part of the exam.

I will also award extra credit points to the first several people who catch any particular error or misprint in any of the handouts, in particular, in solutions to midterms, homework, etc. The largest amount of extra credit is given for catching mathematical mistakes. You must point out exactly where the mistake is, and how it should be fixed.

There will also be extra credit for getting perfect scores on both administrations of Midterm 0.

Extra credit will count toward the grade only for those who consistently do the homework reasonably.

**Syllabus:** We will cover most of Chapters 2–4 of the book. See separate handout for details.

The syllabus is very tight. If certain topics take too long, we will have to go over others very fast, and you will have to read them in the book.

**Important dates (not guaranteed):**

- M 14 Jan.: Last day to drop without a W.
- W 16 Jan.: Last day to add or change to or from audit.
- M 21 Jan.: Holiday; no classes.
- Su 24 Feb.: Last day to withdraw (with a W) or change grading option.

**Final note:** Read the book!

Read it a number of times if necessary. I will not have time to cover everything in class. I will be available to answer questions about things in the book. However, if you can get nothing out of the book you will have a very hard time with this course.