Mathematics 135, section 1 – Calculus 1
Information on Final Examination
November 26, 2013

General Information

- The final examination for this class will be given during the scheduled period 3:00 to 5:30pm on Thursday, December 12.
- Like the midterms, this one will be given *in our regular classroom*, Swords 302.
- The final will be similar in format to the midterm exams but perhaps 1.75 times as long. I expect that if you are well prepared and you work steadily, then you should be able to finish the exam in about 1.5 hours. However, you will have the full 2.5 hour period to work on the exam if you need that much time.
- Unlike on the midterms, *I cannot guarantee that a basic scientific (non-graphing) calculator will be provided for "number crunching."*
- No cell-phones, computers, or other electronic devices may be used during the exam. Please do not bring them with you; they will be subject to confiscation for the period of the exam if you use them.
- If there is interest, we could arrange a review session before the exam. We can discuss this in class on Monday, December 2.
- I will also be available during regular office hours for questions as you prepare.

Topics to be Covered

- This will be a *comprehensive* final – it will cover all the topics we have studied this semester, with roughly equal weight given to the three sections of the course corresponding to the three midterm exams. In addition, you should expect some questions on L'Hopital's Rule, optimization problems and the other material from Problem Set 9 that did not appear on Exam III.
- See the review sheets for the three midterms for a detailed breakdown of the topics we studied earlier. Those review sheets are now reposted on the course homepage if you need another copy of any of them.

Philosophical Comments and Suggestions on How to Prepare

- The reason we give final exams in almost all mathematics classes is to encourage students to "put whole courses together" in their minds. Also, preparing for the final should help to make the ideas "stick" so you will have the material at your disposal to use in later courses. *This is especially important if you are preparing to continue to MATH 136 – everything we will do there is based on material from this semester's course and it will be difficult or impossible to do well in that course unless you have the material from this one under good control.*
- It may not be necessary to say this, but here goes anyway: *You should take this exam seriously* – it is worth 30% of your course average and it can pull your course grade up *or down* depending on how you do.

- Get started reviewing early and do some work on this *every day* between now and the date of the final. Don't try to "cram" at the end. There's too much stuff that you need to know to approach preparing that way!
- Reread your class notes in addition to the text, especially for topics where you lost points on the midterms. There are a lot of worked-out examples and discussions of all of the topics we have covered there.
- Look over the midterm exams with the solutions. Go over your corrected problem sets. If there were questions where you lost a lot of points, be sure you understand why what you did was not correct, and how to solve those questions.
- Be sure you actually do enough practice problems so that you have the facility to solve exam-type questions in a limited amount of time. *Even if you have saved solutions for practice problems from the midterms*, it is going to be much more beneficial to do practice problems starting "from scratch" rather than just reading old solutions. Remember, the goal of the course is to get you to be able to develop solutions to these problems yourselves, not just to understand solutions that someone else (that includes you, one or more months ago!) has written down. Another analogy – as most of you know from your study of languages, it's much easier to understand another language passively than it is to actually use a language actively yourself (for instance, to form your own complete, grammatically correct sentences). The goal of this course is to make you reasonably proficient "calculus speakers" and there's no substitute for active practice on those skills.