FINAL EXAM STUDY GUIDE (VERSION 1)

So here we are, the end of another term... or almost, as soon as the minor matter of exams is settled. Hopefully you've started reviewing at least a bit already, but either way, below are my suggestions (a checklist of sorts) for how to best prepare for the final exam. Please note that I was not involved in the preparation of the final exam, nor do I know exactly what will be on it. Questions about the exam should be directed to your professor.

1. First, make sure you have at your disposal all the material you need to solve problems by doing the following:
   - ✓ Skim through your class notes.
   - ✓ Read through the slides posted in the website's tutorials section.
   - ✓ Print out the two reference sheets on coordinate transforms and vector calculus theorems in the website's reference section and memorize their content.

   This all shouldn't take very long, and the more you've been following the class throughout the term, the less time this will take.

2. Secondly, scan through the solutions to some of the tutorial problems, and make sure you can solve them. There are a lot of these however, so I wouldn't recommend spending too much time on this step or getting hung up on some of the finer details in these problems. The important thing is to make sure you have a problem-solving method that works in general: on the exam, you won't have time to think too much or to try things that may or may not work. Again, this step shouldn't take too long, especially if you've been following the tutorials or practicing a lot during the term.

3. Finally, and most crucially, go to the past exams section of the webpage and do as many past final exam and test problems as you can, starting with the exams that have solutions. For those that don't have solutions, my advice is to use Maple or other software as well as compare with classmates to check your work. Take note that many past finals were written for a slightly different version of advanced calculus than the current syllabus, so don't worry about the irrelevant problems (you'll spot them quickly) and be sure to practice problem types that aren't covered (such as Fourier series and PDE questions). In general, the further you go in this step, the higher your chances are of getting a good grade.

Remember that while cramming can work for some courses, it doesn't stand much chance of working in this class: there's simply too much material that requires practice and a solid understanding of the material that came before it. I know this sounds cliché, but be sure to practice a lot, and not only the day before the exam.

In conclusion, I just wanted to say I've greatly enjoyed being your TA this term. It was wonderful seeing as well as taking part in the learning process that took place throughout the term, and thanks also for the positive feedback on the tutorials and the webpage during the semester.

Best of luck on your finals!

Sacha