

NOTES FOR THE FINAL EXAM -- MAY

2016

The final exam will be held in the usual classroom on Saturday, 7 May 2016 from 1 : 00 - 3 : 00 with additional time (say an additional 20 mins or so) to make sure students can finish, but I will end the exam no later than 3 : 30. This is in fairness to the several students in the class who have won the schedule lottery this term and have an exam starting at 4:15.

The exam will be closed book, closed note and no calculators or other electronic devices will be allowed. Please make sure cell phones/laptops/etc are turned off and put away before the exam starts.

I will provide a list of formulae and results for everything you will need (except for very elementary items like integrating and differentiating basic functions and solutions to simple ODEs like $y'' - y = 0$ or $y'' + y = 0$).

The exam is comprehensive, so if we did it in class, lab, classnote or reading assignment, it is fair game for the final exam. Some of the questions on the final will test your ability to solve problems to calculate a final result (the typical sort of problem you might see on homework and on the earlier hour exams). Other questions on the final will probe more deeply to test your understanding of a topic. I might ask you why a certain solution is possible, or present an incorrect solution and ask you to explain the error(s) and how you might correct them. I could ask questions that focus on why a technique works (think Q2 on the first exam and problem 8.188 given on homework. I am not suggesting these problems will reappear, but these are examples of problems that go beyond

In terms of coverage, material related to partial differential equations will be a bit overrepresented on the final since we have not covered those topics on any hour exam. I anticipate approximately 25% of the final will be devoted to PDEs. Roughly 1/2 of the remainder of the test will be drawn from material covered before the first hour exam. There is likely to be a *Mathematica* related question on the final.

HW 13 and 14 may be picked up during exam week office hours, which will be:

- T: 10 : 00 - 12 : 00
- W: 1 : 30 - 3 : 00
- θ: 10:00-12:00 and 1:30-3:30

- F: 10 : 00 - 12 : 00 and 1 : 30 - 3 : 30