

NOTES FOR THE SECOND HOUR EXAM

Spring 2017

The second hour exam will be held on Friday, 21 April. As always, it will be closed book, closed note, with no calculators or other electronic devices allowed. I will provide a list of equations, results, formulae. For this exam, you should be able to:

This exam will cover the material that we have done in class from Chapters 5-7 of Thornton/Marion and also from Chapter 14 of Felder and Felder. I anticipate that the bulk of the questions will focus on calculus of variations and Lagrangian mechanics since they are the most important topics of the semester. As with the last exam, the challenge is to develop meaningful questions that can be done in the time constraints we have. You should expect to be asked to solve problems and to derive or prove important results, such as Beltrami's identity or show why the function that minimizes an integral satisfies Euler-Lagrange. There will be some extra credit on this exam, but likely not as much as on the first exam.