

# CAAM 453/553 · NUMERICAL ANALYSIS I

## Examination 1

Posted 24 October 2009 (with minor update to Problem 5 on page 6).

Due no later than 5pm on Wednesday, 28 October 2009.

### Instructions:

1. Time limit: **4 uninterrupted hours**.
2. There are five questions worth 25 points each (plus a 2-point bonus).  
**453 students can choose any four problems; 553 students should attempt all five.**  
Please do not look at the questions until you begin the exam.
3. Read the questions carefully. Sometimes useful facts are given between steps of a problem.  
You only need to produce work for those parts of the problem labeled (a), (b), (c), . . . .
4. You *may not* use any outside resources, such as books, notes, problem sets, friends, calculators, or MATLAB.
5. Please answer the questions thoroughly and justify all your answers.  
*Show all your work to maximize partial credit.*
6. Print your name on the line below:

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7. Time started: \_\_\_\_\_ Time completed: \_\_\_\_\_
8. Indicate that this is your own individual effort in compliance with the instructions above and the honor system by writing out in full and signing the traditional pledge on the lines below.

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9. Staple this page to the front of your exam.