

2.004: MODELING, DYNAMICS, & CONTROL II

Spring Term 2003

Pre-Lab Exercise for Experiment 1

Your grade in the laboratory session of 2.004 is based on your performance in pre-lab exercises, lab reports, and laboratory participation. Laboratory attendance is mandatory. If you cannot attend a particular laboratory session, you must obtain prior permission from your laboratory instructor or TA. Absence from your laboratory session is only allowed for extraordinary circumstances such as medical problems.

For 2.004, pre-lab exercises are very important as they are design to get your familiar with the theoretical basis for the hands-on experiment that you will be doing in the laboratory. You will also often find that the results of the pre-lab exercise are needed to quantitatively analysis your data. Administratively, pre-lab exercises are handed out at least one week before your laboratory. You must turn in your pre-lab exercise at the beginning of the laboratory session (within the first 15 minutes). We will not accept any late pre-labs except for real emergencies (e.g. medical).

The first laboratory session focuses on the fundamentals of MatLab. Unlike most the labs in 2.004, you will not be working with a partner. For some of the students who are proficient in MatLab, this may be very basic and can probably finish the exercise in about one hour. For some of the students who are not familiar with MatLab, this will serve to equalize the playing field. Please note that your familiarity of any software, such as MatLab, requires repeated practice in using the program. For students who are not familiar with MatLab, these tutorial sessions can get you started but you should also practice on your own. Since MatLab is used extensively in 2.004, your success in the course partially depends on your familiarity with this tool. Finally, please note that all laboratory reports are due at the end of lab. We do not take late reports.

For the first laboratory, the pre-lab exercise is:

- (1) Read and understand the MatLab Primer on the 2.004 web site.
- (2) Go to Athena cluster and run MatLab. Go through the tutorial provided with the program.