**Course Expectations:** Students in this course will be expected to use theory learned in earlier (and sometimes concurrent) courses to analyze experimental data obtained from hands-on operation of laboratory equipment. In addition, students will be expected to effectively communicate their work in reports, and oral presentations. Emphasis will be placed on critical evaluation of data using statistical methods and comparison to expected results.

**Coursework Timeline:**
1. Individual members of a team will read the handout describing the experiment. The handouts are not meant to be complete. You are expected to independently look-up and gain understanding of necessary information.

2. One week prior to lab date, the team will meet in the lab for a Preliminary Lab Period which will take place on Mondays and Wednesdays from 1:00-2:00 pm. (The first preliminary lab period will take place on February 7. This session can begin at 12:00pm.) During this time, the team will examine the equipment, plan the experiment, and develop a detailed operating procedure. All team members must be present for this preliminary lab session.

3. A written detailed operating procedure (a list of steps to carry out experiment) must be turned in to Prof. T. Kofke at the pre-lab meeting. This meeting will take place, at the latest, one day prior to the lab session. All team members must be present at the pre-lab meeting. A brief (~10 minute) quiz will be given to all team members at the beginning of the pre-lab meeting. The quiz will be reviewed at the meeting and the team will be expected to answer additional questions about their plans for the experiment. More information about pre-lab meetings is given separately.

4. The team will carry out the experiment during the scheduled lab session. All team members must be present at the lab session. All experimental data will be recorded in a “Blue Book” examination book using appropriate laboratory notebook procedure (see below). The lab notebook will be handed in with the final report. A portion of the final report’s grade will be assigned to the lab notebook based on neatness, thoroughness, and adherence to proper lab notebook procedure.

5. Any time a meeting of the team takes place, the team leader for that experiment should take notes on who attended, what was discussed and what was assigned to individual members of the team. A brief summary of this information must be e-mailed to Prof. T. Kofke by the due date of the final report.

6. A final report will be written by the team as a group. The requirements for the final report will be described separately. The report is due two weeks from the scheduled lab session.

7. At the completion of two experiments and the submission of two final reports, the team will give a 15-minute PowerPoint™ presentation based on one of the experiments carried out during the semester (to be assigned by the instructor). More details about this presentation will be given in class.