# Massachusetts Institute of Technology
# Department of Mechanical Engineering
# Cambridge, MA 02139

2.002 Mechanics and Materials II
Spring 2004

General Lab Policies

## Laboratory Safety

The laboratory involves the operation of testing machines and equipment that can cause injury if used improperly. Thus, it is of paramount importance that appropriate safety precautions be adopted at all times. The laboratory instructors, technical instructor, and teaching assistants will all help to assure that safe laboratory practices are observed, but each student is expected to be mindful of, and responsible for, the safety of him/herself and others.

## Laboratory Participation

Lab attendance is mandatory. A sign-up sheet will be passed around during the first five minutes of lab. You will not receive credit for a lab that you have not attended. If you miss your lab session for a relevant reason, you must make arrangements to attend another session of the same lab, and inform your lab instructor.

You are expected to be have read the lab handout for each week's lab before coming to lab; your lab instructor may choose to verify your familiarity with the lab by administering a brief quiz at the beginning of the lab session.

## Laboratory Reports

Unless otherwise specified, you will submit a lab report for each laboratory module. Individual grading will be based on report grades and lab participation.

Your report will consist of a *typed memorandum* to your instructor, following the format outlined on pages 3 and 4 of this document. *It is essential that your memorandum be no more than three typed pages, plus any neatly plotted graphs and figures*. Present *all* your results in SI units. No credit will be given for answers in which units are missing.

Also, please attach additional pages which support your calculations. These additional pages are intended to show the reasoning and calculations which led you to the answers summarized in the typed memorandum; they need to be legibly hand-written. Your Laboratory Reports are due exactly one week after your laboratory session. They will be graded and handed back at the beginning of the next laboratory session.

You have two options for preparation and submission (and grading) of lab reports. **Option 1** requires you to write up your own, individual report; your grade will be yours alone. Under **Option 2**, you are permitted to team up with up to two other students in your lab section. One [or more] of you will write up and submit a lab report in your joint names; the assigned grade will be credited to all students in the team. It is expected that such lab teams will apply throughout the term, and that, over the term, each team member will contribute substantially similar amounts of effort in preparation of the reports.

Data necessary to complete your assignments will be posted on the 2.002 Web site.

**Project Lab**:

Towards the end of the term, you will work, in small teams, on a multi-session project lab, and in the final week of the term, your team will present a summary of the project lab to your lab section. More details on the project lab are discussed in the syllabus.

# Memorandum

---

Date:

To : Instructor
From: Student(s)

RE: Laboratory Module X, Session Y

---

**Learning Summary**

Write a one-paragraph summary ($\sim$ 200 words, maximum) of what you feel that you learned from participating in, and writing up, this lab. (This is not a "trick question"!)

**Laboratory Procedures**

Give a short description ($\sim$ 1/2 to 1 page) of the tasks carried out during the lab session. Use your own words; don't repeat material from the handouts.

**Answers to Specific Questions**

Answer the specific questions listed in the lab handout. Be sure that each answer includes appropriate units, in addition to numerical values!

Include any graphs prepared to answer the questions. These graphs should be clear and concise, and generated from an electronic format (e.g., MATLAB, EXCEL, etc.) Axes should be labeled, and units indicated. If any equations are plotted on graphs, in addition to raw data, the details of the equation must be given (perhaps in the text), along with constants and units used.

Please note that your answers to any "conceptual" questions are as important as your answers to quantitative questions.

---

## Appendix

Enclose all filled-out data forms and (hand-written) calculations, and the listings of any MATLAB scripts used to complete your assignment. The hand-written calculations should be neat and clear; this may require re-copying notes into such a format.