

1. Problem 2.2-7 (Gere, Mechanics of Materials)
2. Problem 2.2-11 (Gere, Mechanics of Materials)
3. Problem 2.2-14 (Gere, Mechanics of Materials)
4. Problem 2.3-5 (Gere, Mechanics of Materials)
5. Problem 2.3-9 (Gere, Mechanics of Materials)
6. A bar is initially 120" and lies horizontally. The bar is stretched by 0.1". It is then pivoted about the left end *without changing its length further* so that the vertical position of the right end is 0.2" lower than initially. (i) Determine the angle of pivoting. (ii) Determine the final horizontal position of the right end relative to initial (unstretched) horizontal position.



Optional Honors Assignment Students who received 90% or higher on Quiz 1 may elect to do the following assignment:

In place of problems 2 and 6 above, students can read sections 2.7 and 2.8 of the textbook on strain energy and dynamic loading and do problems 2.7-6 and 2.8-12. (You may do one of these in place of one of the others or two in place of two.)

If you elect to do this Honors assignment, please make it clear in your handed-in homework that you are replacing one (or both) problems. Note that if you do this alternative assignment, you should still know how to do the omitted problems.

Assignment to Evaluate Educational Software (Courseware)

The class will be using and evaluating educational software that is currently under development. Two of the six modules will be tested during this semester.

Half of the class – those with last names beginning with the letters A through K – will use one module during the coming two weeks. The rest of the class will use another module later in the semester.

The software can be downloaded from the class b-board: academic.mech-e.24-261.announce@andrew.cmu.edu. **THIS SOFTWARE RUNS ONLY ON WINDOWS PC'S.** Part of the assignment will be due on October 23; the remainder is due on October 30.

Do not try to download the software at the last minute before the homework is due.

Download it right away, unzip it, and following instructions to get started. If you have any problems, contact Prof. Steif right away.

Message with email

The class will be using and evaluating educational software that is currently under development. Two of the six modules will be tested during this semester.

This assignment is only for students with last names beginning with the letters A through K. (The remaining students will use a different module later in the semester.)

Attached is a zipped up version of one module. **THIS SOFTWARE RUNS ONLY ON WINDOWS PC'S.** The manual pertains to the entire set of modules, but it will tell you how to start any single module.

Your assignment for this week is to complete through problem 20. The use of this courseware is intentionally interspersed with the written homework. Therefore, you should not go past problem 20 this week. The following week you will complete the module. **HOLD ON TO YOUR LOG FILE FOR THE FOLLOWING WEEK.**

When you are done with this week's courseware assignment you should email the log file to Jesse Olson at jto@andrew.cmu.edu. The subject line on the message should be Log File. The message can be otherwise blank. Your log file, axial.log, should be attached to the message.