

MAE 11 - Homework Assignment Requirements

Homework assignments have the following requirements. **Any homework not following these requirements will be returned ungraded.**

1. All homework must be done **neatly** on $8\frac{1}{2} \times 11$ paper (single-sided on clean, new paper, stapled together, no frayed edges) with each problem and final solution **clearly indicated**.

The following information must appear on the **first/cover page**:

- **Name and Date**
- **Course number**
- **Homework number**

Illegible homework will be returned ungraded.

2. The following is the **standard format** for organizing and presenting the solution to each homework problem[†] (See sample solution on next page):

- (a) **Problem Description** - include the following (* very important):
 - Basic description and given information
 - *Sketch of problem/geometry and **system** considered (use dashlines for system)
 - Initial state (knowns and unknowns)
 - Final state (knowns and unknowns)
 - *Appropriate property diagrams (indicate state points, process lines)
 - What is to be determined
- (b) **Engineering Model** - list all required simplifying assumptions and idealizations.
- (c) **Basic Equations** - general form of relevant fundamental laws, equations, definitions.
- (d) **Analysis**
 - clear description of procedure to reduce basic equations to give solution.
 - keep equations in variable form (no numbers) for as long as possible.
 - identify all tables and charts needed for additional data, property values (e.g., "...from Table B.1.1").
 - substitute numerical values into final equations. be sure to specify all units and unit conversions.
 - keep significant figures consistent with given data.
 - check solution - correct sign, reasonable numerical values?
 - clearly indicate final answer(s) with underline or box.
- (e) **Discussion of Solution** - as needed (what you learned, key aspects of solution, etc).

[†] Note: Some of the problems (e.g., Ch 1 problems) may not require all the above items. Follow the standard format as best as you can or as appropriate.

3. Grades will be determined by student's:
 - Understanding of the problem.
 - Identification of necessary procedure to obtain solution.
 - Clear and precise description of solution.
 - Correct numerical answers.