

Homework Submission Specifications

All homework problems, unless otherwise directed by your instructor, should follow the Civil and Environmental Engineering (CEE) Format. All homework should be neat and arranged in a manner so that it is easy to determine what is being done, how it is being done, and what the results are. Each problem should be worked as if it was part of the design calculations or a report for a major engineering project. Such calculations are subject to review and sometimes must be presented in court as evidence.

Solutions to homework problems may be generated by hand or electronically, depending on the nature of the problem or the directions of the instructor. All hand calculations should be presented on standard 8 ½ by 11-inch engineering paper. For either case, the following general guidelines should be followed:

- 1. Headers:** The top of each sheet of paper that you use for a homework assignment should contain the following information from left to right:
 - A. put the staple (for multiple page work) in the upper left-hand corner
 - B. the course number, the date that the assignment was completed and your name (or names where a team project)
 - C. number each page in reference to the total number of pages (for example, 1/3, 2/3, 3/3)
 - D. where appropriate or directed, print a title indicating what computations are being done
- 2. Mechanics:** All homework should be:
 - A. carefully printed, using pencil (not ink) for hand-written submittals or 12-pt font for electronic submittals, with equations prepared using appropriate equation editors
 - B. neat and clean, *i.e.* printed on the lines for hand-written submittals with no smudges or cross-outs
 - C. in the order that the problems are assigned (one, two, three, etc.)
 - D. using only the front side of each sheet of paper
- 3. Calculations:** All homework calculations should:
 - A. include at least one complete sample for every type of calculation presented
 - B. include all units for each term in each equation and the units must balance
 - C. use the appropriate number of significant figures for all numbers
 - D. always present answers in customary units unless otherwise instructed
 - E. clearly indicate the final solution by boxing it in with a rectangle
- 4. Problem Essentials:** Problem solutions should include the following items in order:
 - A. homework problem number listed at beginning of problem
 - B. the given information - the information that will be used to solve the problem
 - C. the required information - the information or solution that we are looking for
 - D. sketches, diagrams or figures that clearly illustrate the problem, the essential data, and/or results, where helpful in understanding, explaining or solving a problem (use electronic graphic/drawing methods wherever possible)
 - E. all equations (in symbolic form and then rewritten with appropriate numerical values) and any assumptions made. For spreadsheet submittals, show sample calculations (with units) for each spreadsheet calculation. Spreadsheet formulas can be printed in addition to the sample calculations
 - F. references for all acquired data
 - G. annotations or explanations for each step in the calculations. Do not just provide a series of equations
 - H. the solution of the problem including all required steps, calculations and final solution
 - I. figures, drawings, or tabulations that are required to work the problem or are part of the final solution presentation may be part of H. or follow it. These are to be oriented such that the top of the illustration is parallel with the binding margin (top or left side of the paper).