

HOMEWORK ASSIGNMENTS: PROCESS OF SOLUTION AND FORMATTING Guidelines

1. The following format is a guideline to complete each problem requiring substantial numerical calculations:

Problem Statement Concisely summarize the task(s) required to solve the problem. If there is more than one task, designate the tasks using a numerical or alphabetical character as appropriate.

Drawing Include a well thought out conceptual drawing describing the key elements of the problem.

Assumptions. Briefly list all the assumptions needed to solve the problem in bullet point form.

Solution. Show the solution to the problem in a logical, well-organized, and neat manner. Write down the name of the governing equations used to solve the problem.

As a general rule of thumb for Earth Scientist, giving answers to more than two significant figures is usually not warranted. The number of significant figures warranted in a particular problem may be more or less than this value. When rounding off during calculations, it is good practice, if possible, to use at least one more significant figure in all rounded values than the desired number of significant figures for the final answer. For example, if the appropriate number of significant figures is three, use at least four significant figures, where possible, for all rounded values used in the calculation of the final answer.

2. Use engineering or clean-edge lined paper for every problem in which the solution is handwritten. If the solution is done using a computer program, print out the solution on white paper. In all other aspects, computer-printed solutions must strictly adhere to the same formatting standards as handwritten solutions.
3. Number, title, and label each figure or table produced for the assignment (for example, Figure 1, Table 3, etc.) Labels for figures go below the figure, while titles for Tables go above the table.
4. Hand-drawn graphs can be acceptable provided the following format is used. Both axes should be labelled, including units. All straight lines (including axes and tick marks) must be drawn with a straight edge (triangle, ruler, etc.). Data points must be represented by a symbol (circle, square, etc.), with different symbols used for different relationships.

5. If you use a spreadsheet program to do a problem, which may be encouraged or required in some cases, you **MUST** provide sample calculations for each type of calculation. These sample calculations can be provided within the spreadsheet itself (but must be within the section that will be printed and turned in) or on a separate page or pages.
6. Your solutions should be neatly written, well-organized, and coherent. Lack of neatness, organization, or coherency will result in reduced credit. Examples of techniques and conditions that are unacceptable include the following:
 - a. Parts of the solution are deleted using a line or an "X"
 - b. Erasures are dirty, smudgy, or incomplete
 - c. Arrows are used to show where a portion of a solution should be located rather than its actual location
 - d. Printing is sloppy, too small, or too light to read
 - e. Inappropriate comments are included in the solution
 - f. Computer generated input and output are not properly integrated into your solution
7. Only one problem should be worked on each page. Start each problem on a separate piece of paper. **Use only the front side of the paper.** Each page should consist of a full piece of letter paper of size 8.5 by 11 in. or A4.
8. Staple the pages of your assignment on the top left-hand corner. Do not use paper clips because they come off easily and some pages of your assignment may become lost.
9. Put the problem and page number on the top of each sheet of the assignment.
- 10. Homework that is messy, hard to read, or sloppy will result in reduced credit.**