Rowan Engineering Homework Format

All homework problems, unless otherwise directed by your instructor, should follow the Rowan Engineering Format. This format is used for most professional engineering work. Unless otherwise directed by your instructor, you should use engineering paper or the equivalent for all homework assignments.

1) **Headers:** The five boxes at the top of each sheet of engineering paper that you use for a homework assignment should contain the following information from left to right:
   a) put the staple (which is the required homework binder) in the first (small) box
   b) print the team leaders name in the 2nd box and the names of each *participating* team member below this box
   c) print the course name in the third (large) box
   d) print the date that the assignment was completed in the fourth box.
   e) print the page number / total number of pages in the fifth (small) box
2) **Writing Mechanics**: All homework should be:
   a) carefully printed and not written in cursive
   b) printed in pencil and not in ink
   c) neat and clean, i.e. printed on the lines with no smudges or cross-outs
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 (usually three) for all numbers
   d) clearly indicate the final solution by boxing it in with a rectangle
4) **Problem Order:** Problems should be presented
   a) in the order assigned (one, two, three, etc.)
   b) with a new problem starting on a new page of engineering paper
   c) with the designated problem number, from textbook or professor, under box 2.
   d) using only the front side of each sheet of engineering paper
5) **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) a straight-edge diagram or diagrams that clearly illustrate the problem
   e) the solution of the problem including all required steps and calculations
6) **Evaluation:** Double-check all of your calculations to make sure that:
   a) all of your math is correct, i.e. you made no errors in using the calculator or computer
   b) all of your equations are correct, i.e. you made no errors in manipulating equations
   c) all of your units balance, i.e. you derived the correct units for the desired solution
   d) your final answer is reasonable. (e.g. is your reactor bigger than the empire state building, is the temperature of any liquids much higher than the mixture boiling point. Is the pressure drop greater than 10% of the total pressure.
7) **Computers**: Homework Assignments using Computers
   a) Show sample calculations (with units) for each spreadsheet or POLYMATH calculation on engineering paper.
   b) Do not printout raw data from data acquisition experiments. A summary of the data in the form of a table and/or a graphical presentation of this data is sufficient unless otherwise requested from the professor.
   c) For homework requiring **POLYMATH**, the following additional printouts are required:
      i) A printout of the program you have written. To reduce the number of printouts, you must paste this output into a word document containing all tables and graphs required for a particular homework.
      ii) A summary table of the solution.
   d) For homework requiring ASPEN: i) A summary table of the solution ii) a process flow diagram iii) electronic file uploaded on blackboard or otherwise instructed by professor.
   e) For homework requiring COMSOL: i) handwritten setup of the problem showing geometry and equations ii) required graphs and tables iii) electronic *.mph file uploaded on blackboard or otherwise instructed by professor

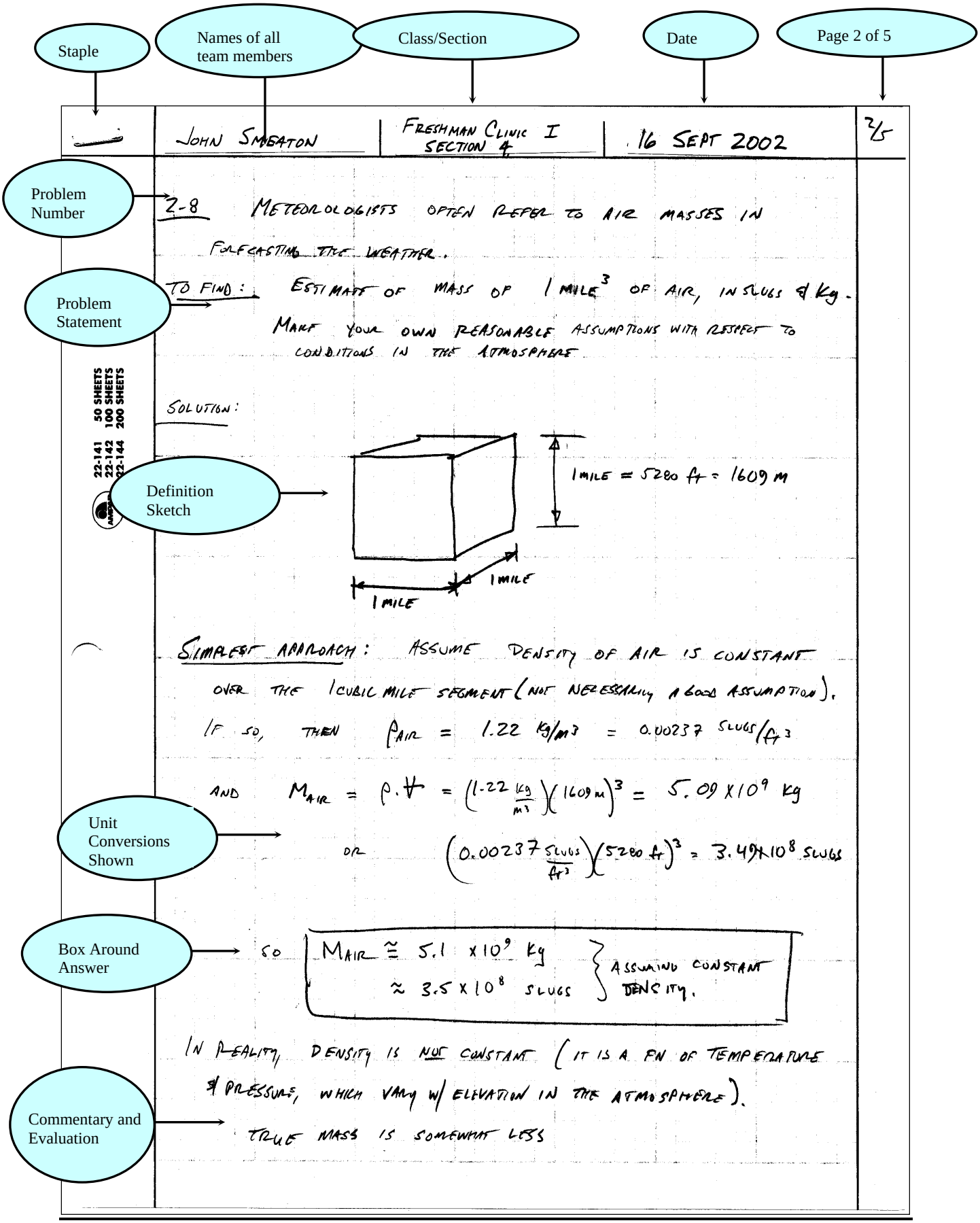

Figure 1: Sample homework on engineering paper in proper format.