
WRITING STYLE

Calculus is probably the most mathematically rigorous course you have taken to date. Calculus is *very* practical and applies to *many* real problems of engineering, physics, mathematical biology, financial analyses, geology, meteorology, medicine, *etc.*

As you take more more advanced mathematics, engineering and science courses, you are expected to apply more mathematical rigor and demonstrate more mathematical maturity than what might have been expected of you in past courses. You should therefore follow these rules to sharpen your mathematical writing skills. Violating these will result in point deductions.

Because I might occasionally collect homework:

1. Problems should be worked first on scratch paper. Once you have solved the problem, rewrite your solution **neatly** on new loose-leaf paper so that your steps are understandable, legible, and easy to follow.
2. Homework should appear on **one side of the sheet only** (not front and back).
3. Homework should be written on $8\frac{1}{2} \times 11$ inch loose-leaf paper (not paper from a spiral notebook, and do not submit your homework in a notebook).
4. Each section (as enumerated in the text: 1.1, 1.2, 1.3, etc.) must begin on a new page with the section clearly shown. In the upper right corner you should neatly print the Course Number and Section (e.g., MATH-xxx-nn), your name, Row number, and Seat number.
5. Sections, problems, and pages should be **stapled in their proper order**.
6. Long problems should **always** begin on a new page.
7. All work must be legible and solutions should proceed logically and clearly **down the page** (not across the page). Poor handwriting will result in point loss. (Your instructor should not have to struggle to read your writing or understand your steps.)
8. Include sentences to explain key steps. Also assign numbers to key equations or results in your work and refer to them by number. For examples:
 - “We set $f'(x) = 0$ and solve for x to obtain. . .”
 - “We set $f(x) = 0$ and solve for x to obtain. . .”
 - “We use the result from Eqn. (3) above to obtain. . .”
9. All steps should be shown for full credit. The instructor is not merely looking at your answer. Many students believe that appearing to be able to skip steps and “do the work in ones head” impresses the instructor; it doesn't. On the contrary, detailed, thorough, neat and systematically written steps impress most instructors. Remember that it is your responsibility to demonstrate mastery of the material to the instructor. (It is not the instructor's responsibility to figure out or mentally fill in your missing steps or to assume that you know what you are doing when you skip steps.)
10. Correct mathematical notation must be used at all times. This includes but is not limited to:
 - (a) proper use of the equal ($=$) sign,
 - (b) proper use of the “implies” symbol \implies , (The arrow and equal sign are *not* equivalent.)
 - (c) proper use of derivative and integral notation.
11. You should draw large, neat, and clearly labeled graphs or diagrams to aid in working the problem. Graphs and diagrams should not be small and should not be sloppy. Since Maple is used in this course, you are encouraged to use Maple to create plots and submit them with your homework.
12. Always circle your final answer to each problem.
13. Solutions to different problems should not appear side by side. That is, you should write solutions in single column format proceeding down the page.

Consider that someday you might want to ask an instructor to write a recommendation letter for you. Following the above rules will carry much weight when the instructor considers writing a letter of recommendation for you.[†]

[†]Your professors are not only looking at your grade but are also forming opinions based on your behavior in class (e.g. promptness, attentiveness, attitude, respect, attendance, participation) but *also* on the *quality* of work you submit. For example, I've written some letters in which I had to say things like: “Besides the strengths I've listed, and although J— did well in my course and generally seems to know what he's doing, he could do better. In my class he projected the attitude that showing proper details (i.e., writing good reports) was beneath him and was a waste of his time. He would probably make a good employee/graduate student, but he'll need coaching as he seems to think that his talents outweigh his need to write well, record details, and show due respect to those over him.”