APMA 0200 Introduction to Mathematical Modeling - Fall 2015
MWF 10:00 - 10:50 PM, Room: Salomon Center 202

Instructor: John Gemmer
Office: 182 George Street, Room 328
Phone: (401)-863-2114
E-Mail: john_gemmer@brown.edu

Office Hours: Wednesday 3:00-4:00 PM and Thursday10:00-11:00 AM

Homework Policy:

Homework is an essential part of this course and should be taken seriously. Among other things, homework provides me with feedback and also helps prepare you for the exams. Typically, homework assignments will consist of a couple of problems posted on my website. Your solutions to these problems must be written in clear sentences that illustrate the methods you used to solve the problem.

Writing in Mathematics

In academics, being able express your thoughts in a way that can be understood by others is essential. This is especially true in the scientific fields since mathematicians and scientists must explain abstract concepts to people outside of their fields. By writing up your solutions to homework assignments you should present your work in a clear and organized fashion. In addition, writing solutions to problems will provide you with a deeper understanding of the concepts discussed in class. Moreover, writing will enable me to understand the concepts that have remained unclear. Below are some guidelines that will be used when grading your work.

1. **Write as if the reader does not already know what you want to say:** Assume that whoever is reading your work does not know how to solve the problem. Keep in mind that the reader can only see what you have written, not what you meant to write. You should target the exposition of your writing to a fellow student in the course. The student should be able to read your writing and completely understand how to solve the problem without talking to you.
2. **Focus on the process and not the final solution:** Clearly describe your thinking. Focus on the logic behind the steps of a problem and not the computations.
3. **Use an easy to-read-format:** Use complete sentences, write legibly, be concise, and organize your work in a logical manner. Also, please leave plenty of room on your paper for my comments.
4. **Avoid vague words like "it":** Most problems contain many quantities. "It" does not tell me which quantity you are referring to. Consequently, I cannot give you credit. Something that is clear to you, has to be made clear to the reader in order to receive credit.

5. **Avoid using unnecessary arrows:** Do not overly use arrows to indicate things. Using an arrow in a graph or a plot is OK however arrows should not be used in sentences unless of course you are computing a limit.
6. **Grammatical structure:** Mathematics symbols can and should be used in sentences. For example an acceptable sentence would be something like: "The equation for the line pictured in the figure above is given by y=3x+2". Then, if I wanted to convey to the reader that I found the x-intercept of the graph I would write something like: "Solving the equation 3x+2=0 yields the x-intercept x=-2/3.
7. **Define any symbol you used that was not introduced in the problem:** For example, if you want to use the variables l and w to represent the length and width of rectangle your writeup should include a sentence similar to: "Let l and w equal the length and width of a rectangle." Also the variables you use should sense in the problem.
8. **Abbreviations:** Do not use abbreviations or symbols such as @.