Fourth Assignment:

As stated earlier, this assignment is to write mathematical letters: one to your parents, explaining the idea of independence or conditional probability; another to a fellow student, explaining the notion of sample space or random variable; a third to a professor or someone in industry or an applications area, asking for information about probabilistic aspects of their work, or a question which you might have in this area. These letters should be about 2 pp. each; one to be mailed and rewritten after the recipients’ comments are received.

This assignment should be more fun than the others since you will try out some of what you have been doing on “real people”. The first of your correspondents doesn’t really have to be one of your parents, but just someone older than you in the sense that they are already out of college, and preferably not a professional scientist. The fellow student doesn’t have to be a UM student and cannot be a student in our class. You may assume, if you like, that this person knows something about math and science, although I do not want you to assume that he or she knows any probability or statistics. Finally, I can be the third correspondent, as well as any professor you know here. I will not be the one of the three correspondents to whom you actually send one of your letters.

Try to distinguish between the ways you address these three correspondents. That is, you very likely do not talk as “colloquially” with your parents as you do with your classmates. On the other hand, you have very long histories of association with your family members, which may give you very compressed and efficient ways of communicating with one another. You have been addressing various groups of people like this in your earlier writings, but this is to write something where you may know the person specifically and can craft your message with a precise idea of your intended audience’s background, likes and dislikes, patience for detail, etc. Also, your relationship to the correspondent changes markedly across these three types of correspondent, and it will be good for you to write these in parallel to get the clearest possible sense of how you reconfigure your message suitably for the audience.

I will provide you with a cover letter to send with your letter to your chosen correspondent, thanking them for participating in this exercise. I will also explain to the correspondent what it is we are looking for in their comments: basically just to say whether they feel you were clear and effective in telling your message, and whether they have any comments beyond that which they feel might be constructive. Remember, this letter will be rewritten after these comments are received, and the comments will shape this rewriting. You might speak with your correspondent beforehand to be sure they have the time and interest to make these comments in time for the end of the term. The letter to be sent is due to go out by Friday, November 7. Be sure to double space it. I will give you the cover letter then, or sooner, if you are ready to send your letter out before that time.