Math 2250 D. Lorenzini

This assignment should help you find a motivation for learning the materials presented in this course. I would like you to find a topic (interesting and enjoyable to you) in your chosen field of interest/major that uses calculus in one form or another. You should be able to find such a topic since this class is probably a requirement for your field of interest/major. I suggest that you proceed as follows.

- 1. Make an appointment with any professor in your field of interest (or anybody who has a Ph.D in your field of interest). If you do not yet know any professors in your field of interest, look up a roster of professors listed along with their professional interests, and pick one that looks interesting to you. So that this professor may prepare for your visit, let him or her know beforehand the exact purpose of the scheduled meeting: you would like him or her to tell you about a topic in his or her field of interest (which is yours too) that uses calculus in one form or another. You are not too interested in hearing about the mathematics involved, but you would rather get a good picture of what this topic is about. (Presumably, you are more interested in your chosen field of interest than in mathematics and, anyway, you do not know calculus yet.) Your conversation with this professor should, on one hand, increase your interest in your chosen field of interest and, on the other hand, motivate you to study calculus. Ask this professor whether he or she could also give you, at the end of the meeting, a xerox copy of the few pages of a textbook where this topic is discussed.
- 2. At the time of the meeting, take good notes while talking to this professor. Your assignment is to report on your conversation. If the professor uses technical words that you do not understand, do not hesitate to ask questions. This professor should motivate you to pursue study in your chosen field of interest, as well as convince you that you ought to learn more mathematics. Do not forget to also ask this professor information about possible job opportunities in labs in the department, internships, Research Experiences for Undergraduates (REU), etc.
- 3. (i) Hand in a report approximately one page long, *typed*, (with possible mathematical symbols handwritten if necessary), summarizing the topic of interest that you discussed. Do not forget to state your name, and your chosen field of interest.
  - (ii) At the top of your report, clearly state the name, phone number, and campus address of the professor that you met.
  - (iii) Attach the xerox copies of the relevant pages of a textbook that were given to you by the professor. If you have not been able to get xerox copies, explain why.
  - Any report that does not contain each of the three points above will be considered incomplete. *I* plan to keep your report, so do not forget to keep a copy of it for yourself.
- 4. Send a copy of your report to the professor that you met, thanking him or her for his or her time and advice.

If you have any questions regarding this assignment, do not hesitate to come to my office hours, or to make an appointment to see me (542-2578). I suggest that you get started on this assignment as soon as possible since you need to first schedule an appointment with a professor. (If you schedule an appointment, say a week or two in advance, then it is a good idea, the day before the scheduled appointment, to call the professor to confirm that you will be meeting him or her the next day as planned.) Note that all professors teaching this semester have regular office hours probably posted on their web page.

<sup>&</sup>lt;sup>1</sup>If this professor tells you that calculus is not used in his or her own field of research, then ask this professor to give you the name of a departmental colleague who uses calculus. If this professor cannot think of such a colleague, and you are required by this department to take calculus, you ought to ask this professor the purpose of this requirement.