U Mass Dartmouth EAS621, MTH599/499 and PHY495 October 26, 2016

ASSIGNMENT 8

(due noon, Monday, Oct. 31 and before the start of class on Wednesday, Nov. 02, 2016)

Reading

If you have not already done so, read and be prepared to discuss Sec. 8.2 of the *Mayfield Handbook*. We will discuss it in class.

WRITING

PART 1

The task in this part is to write no more than two sentences to answer a very explicit technical question. Be sure you answer the question; do not write about the subject in general.

The motivation for this "no more than two sentences" rule is that it will force you to use complex sentences and to deal with the pitfalls of language mechanics that plague complex sentences. You may be tempted to use semicolons to avoid the purposes of this exercise. To help you avoid temptation we impose the rule: no semicolons.

You should view yourself as trying to accomplish two nearly incompatible tasks: (i) You should stuff into your sentences as much relevant material as possible, so that you do the best job possible of answering the question. (ii) Your sentences should be easy to read. If they are lengthy they must be very carefully constructed.

The question is: "A chunk of salt is not transparent, but when it is dropped into water it disappears. Why?" The answer is to be directed to a literate adult who does not have a technical education.

$PART \ 2$

You are to rewrite a poorly written technical paragraph. Your rewritten paragraph should contain all the information in the orginal paragraph, but it should be clear, have good language mechanics, and good flow.

You have a choice of what bad paragraph you will start with. You may find a poorly written paragraph in a textbook or journal article. Alternatively you can start with the abysmal paragraph below. (If you choose that paragraph, make sure you understand what it is struggling to say.)

Abysmal paragraph

Vowels are low frequency, consonants are high frequency and band with determines how quickly information can be transmited. Its part of information theory, the science that performs the task of telling us about the transmission of information such as the information in language and vowels, after all are part of language. Low frequencys cant transmit information quickly this tells us. Band with, a reference to the frequency where the information is transmited. Many languages differ in consonants and vowels although every one of them have both. Consider for instance, Italian and Norwegion, for example for consonants and vowels. Each of these have them but italian has lots of consonants, unlike Norwegion that you can't say does. A person therefore speaking Norwegion should take more time to get their idea accross.