In class, we have been working on the preparatory work that comes before a piece of writing is completed. We have discussed several different kinds of pre-writing “outlines.” For this “essay,” you will actually only be turning in an outline for an essay that you won’t complete.

Imagine that you have been commissioned to write a textbook chapter about dark energy. In this chapter, you want to explain the evidence for dark energy, why dark energy is important to the evolution of the Universe, and the several possible explanations of what dark energy might be. You will also discuss some the “problems” linked to dark energy – such as the fact that it’s such a small effect when the proposed “vacuum energy” solution gives a very large effect. In the end, you will want to consider the future of dark energy theory and possible detection experiments.

Writing a textbook chapter would be a very large undertaking, and so your outline should include the following:

- An organizational structure for the chapter – what order would you put things in?
- Key terms – such as “cosmological constant” and “quintessence” – that are a part of explaining this issue to your reader.
- Any metaphors or helpful images that you would choose to include.
- Specific citations to pieces of evidence from our reading that you would include in the chapter. Your outline should include at least 7 quotations that you think would be helpful. They don’t need to be paraphrased or put into sentences – at the stage of an outline, you don’t need to “clean up” everything.

In class, we discussed several different methods of outlining. Hand in whatever works for you, and use this opportunity to try a new method and see whether you like it! Use this as a tool for yourself. What I want to see is that you thought about the structure, and that you were able to find the key pieces of information and evidence that should be included in the textbook. What I’m not worried about is any particular structure, and if you want you can use this as an opportunity to try something different without worrying about the grade it would get.

Understanding how the dark energy “problems” relate to the anthropic principle will be particularly important for the final essay assignment and the preparatory work for it, which we will begin next week. You may want to pay special attention to this now!