Astronomy 40: Weekly Writing Assignment

Lectures wash over you; readings are processed and diligently recalled for their information content; books are read; papers are written. And the course is over, without you ever having stepped back and reacted to the ideas being presented, without having compared expectations with what was delivered, without ever having gotten angry, or even happy.

The ideas presented in this class may be upsetting, disturbing, or refreshing to you. They may conflict with your common sense, or they might be what you’ve thought naturally all along. By completing weekly writing assignments, you’ll hopefully be wrenched out of the bleachers and allowed to take a more active role in the game. Each week, you will turn in a writing assignment at the start of the first (Tuesday) class each week, consisting of three clearly labeled parts, described below. There is no overall length requirement for these writings; quality is more important than quantity. If I think your writings would benefit from more expansion on the ideas, I will tell you; in general, a few pages will probably be sufficient. The main thing I am looking for in these is a clear demonstration of effort on your part to synthesize and actively grapple with the course material. I will evaluate your work on these assignments on a 20 point scale, with the (admittedly subjective) criteria for the evaluation of each section spelled out below.

1. Response to a weekly thought question. I will pose a question related to each week’s reading assignment, to which you will respond in the form of a short, formal writing assignment. We will occasionally use these questions as a starting point for discussion in class, but note that this discussion occurs after you’ve handed in your response to the question. What I am looking for here is a thoughtful, well-written response to the question posed.

2. A short synopsis of the material presented in class during the previous week. Since there is no textbook for this course, I want to see your characterization of what has been covered, as seen through your eyes. These are not meant to be exhaustive accounts of each detail, but rather the broad overview of what was discussed. The goal here is that, at the end of the course, you can read these summaries and be reminded of all the major themes touched on during the course. One way to think about this is to act as though you are teaching yourself the material long after the course is over — you will want to put at least enough content in to be able to trigger your memory of the ideas covered. Indeed, together with the Reader, it is hoped that this will serve as your best reference for the content of the class after it is over (and when reviewing for the final exam). You can choose the form that best works for you for this section: outlines and prose are both OK.

3. Your reflection on the course material, where you record your own changing thoughts and beliefs as the course progresses. The style for this part is decidedly free-form, stream-of-conscious, and first-draft. There is no need to polish this writing, and its content is completely up to you. What I want are your reactions to what is happening in the class. This can take many forms. Does the material excite/bore you? Have you thought of a radical new way of looking at the Universe that needs to get out? Do you want to stop analyzing things completely? Do you find Aristotle repulsive? Would you like to have dinner with Plato? Was Kepler nuts? Do you think Einstein is cool? Whatever it is you’re thinking, write it down. This will also help me keep my finger on the pulse of the class, and steer things in directions that I think you’ll find most interesting.

Mathematical Problems

This course is not driven by the assignment of lengthy, tough, problem sets. However, during the middle sections of the course, and especially when discussing Newton’s Laws of Motion, you will be asked to work through some physics problems, which will always be due at the start of the second (Thursday) class of the week following the week on which they were assigned (e.g., you have over a week to work on them). Successful completion of these problems is of vital importance to your understanding of all of the scientific and philosophical issues that we’ll be tackling throughout the course.