

Astronomy 1 – Introductory Astronomy

Spring 2014

Rules and Guidelines

First of all, I love astronomy, I love knowing about and learning about the Universe, and I love teaching. My assumption is that students want to learn things and want to understand how the world works too. I will help you do that – in the realm of physics and astronomy and the skills you need to understand them (mostly math, but also sketching/drawing, interpreting reading, and also writing). But you will have to make the commitment to hold yourself to a high standard – not just of work and accomplishment, but also of *understanding*.

I don't think the point of a class at Swarthmore is to teach you how to get good grades at Swarthmore. It's to learn things!

You will have to work hard to do well in this class, but if you do, you will learn a lot. And you will develop or improve skills that will serve you well even if you never take a physics or astronomy class again.

The most fundamental aspect of the work you will do in Astro 1 is keeping on top of the assignments – reading as well as written assignments. It is imperative that you do the reading *ahead* of class. I will sometimes give you short assignments based on the reading that will be due either in class or the night before class. These are intended both to help you identify areas where you need more work and to help me see what concepts I should spend more time on in class.

Studies show that students whose knowledge is frequently tested end up learning more and doing better in the class.

But it's not only up to me, you have to constantly be testing yourself, asking yourself if you really understand the material you're reading, learning in class, or seeing in lab.

Expectations:

Astro 1 doesn't require any special knowledge or unusual skills, but it does have its difficult aspects. It is not an easy class. The average grade when I teach it is almost always between B and B+. That means that about half the students in the class will get a B or lower this semester.

I expect that you'll come prepared to class and ask questions if there are things you don't understand. I expect and encourage you to come to my office hours to ask questions or talk more about what interests you.

I encourage you to work with your classmates on homework assignments, but the work you hand in must be your own; it must be your own words. A good way to ensure this – and to ensure that you really understand the solution to a problem that you've worked on with classmates – is to not write your solution while you're interacting with your study group, but rather just talk it over and take notes. And when it comes time to actually write up your solution, you do it by yourself, without talking to your classmates and certainly not looking at their solutions while you're writing yours.

Classroom Behavior:

75 minute classes are long. But there are only two per week. We have to make good use of the time we have together. Here are some rules you will follow in the Astro 1 classroom:

Please do not leave the room in the middle of class without asking permission.

Absolutely no use of phones or computers in the classroom.

Please bring a calculator to do math for solving problems in class.

As far as taking notes goes – hand-writing notes is more effective at getting you to internalize the information you're writing, compared to writing on the computer. Also, we'll be doing some math in class and also making quite a few sketches. All this is better done by hand. And of course, there's nothing more distracting than a computer attached to the internet. So you'll be glad you don't have that to worry about during class!