ASTR 101: General Astronomy
Academic Dishonesty Information and FAQ*

Fall 2022

Academic dishonesty is completely forbidden in ASTR 101. The instructor and TAs are constantly watching for any signs of academic dishonesty in all aspects of this class; we will immediately pursue any suspected cases.

1 The Code of Academic Integrity

Students enrolled at the University of Maryland are bound to follow the Code of Academic Integrity, which dictates actions that constitute academic dishonesty and how cases of academic dishonesty are handled by the Student Honor Council. Why is this code important?

The following is excerpted from the *Code of Academic Integrity* written by the Student Honor Council (URL: http://shc.umd.edu/SHC/StudentAcademicDishonesty.aspx):

> The University is an academic community. Its fundamental purpose is the pursuit of knowledge. Like all other communities, the University can function properly only if its members adhere to clearly established goals and values. Essential to the fundamental purpose of the University is the commitment to the principles of truth and academic honesty. Accordingly, The Code of Academic Integrity is designed to ensure that the principle of academic honesty is upheld. While all members of the University share this responsibility, The Code of Academic Integrity is designed so that special responsibility for upholding the principle of academic honesty lies with the students.

Scientists, such as astronomers, informally follow such a code. Scientists realize that scientific progress can only be made if experimental results and advances are reported honestly. They also realize that other scientists will not share their results and discoveries if they are not confident that they will be recognized and acknowledged when their results are utilized by others. Because of this, academic dishonesty is doubly frowned upon by scientists at the University of Maryland.

2 What Is Academic Dishonesty?

The following is a description of academic dishonesty and its consequences taken from *Testudo: Interactive Web Services for Current Students, Prospective Students, & Alumni*, URL: http://www.testudo.umd.edu/soc/dishonesty.html . It is copyright of the University of Maryland:

> Academic dishonesty is a corrosive force in the academic life of a university. It jeopardizes the quality of education and depreciates the genuine achievements of others. Apathy or acquiescence in the presence of academic dishonesty is not a neutral act.

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All members of the University Community – students, faculty, and staff – share the responsibility to challenge and make known acts of apparent academic dishonesty. Any of the following acts, when committed by a student, is an act of academic dishonesty.

A. Cheating: Intentionally using or attempting to use unauthorized materials, information or study aids in any academic exercise.
   1. Students completing any examination should assume that external assistance (e.g., books, notes, calculators, conversation with others) is prohibited unless specifically authorized by the instructor.
   2. Students must not allow others to conduct research or prepare any work for them without advance authorization from the instructor. This comment includes, but is not limited to, the services of commercial term paper companies.
   3. Substantial portions of the same academic work may not be submitted for credit or honors more than once without authorization.

B. Fabrication: Intentional and unauthorized falsification or invention of any in formation or citation in an academic exercise.
   1. "Invented" information may not be used in any laboratory experiment or other academic exercise without notice to and authorization from the instructor.
   2. One should acknowledge reliance upon the actual source from which cited information was obtained.
   3. Students who attempt to alter and resubmit returned academic work without notice to the instructor would be in violation of the Code of Student Conduct.

C. Facilitating Academic Dishonesty: Intentionally or knowingly helping or attempting to help another to commit an act of academic dishonesty.

D. Plagiarism: Intentionally or knowingly representing the words or ideas of another as one's own in any academic exercise.
   1. Direct Quotation: Every direct quotation must be identified by quotation marks or by appropriate indentation and must be promptly cited in a footnote. (Proper footnote style for many academic departments is outlined by the MLA Style Sheet or K.L. Turabian's A Manual for Writers of Term Papers, Theses and Dissertations.)
   2. Paraphrase: Prompt acknowledgment is required when material from another source is paraphrased or summarized in whole or in part in your own words.
   3. Borrowed Facts or Information: Information that is obtained in one's reading or research; which is not common knowledge among students in the course, must be acknowledged. Materials which contribute only to one's general understanding of the subject may be acknowledged in the bibliography and need not be immediately footnoted.

Academic dishonesty is a serious offense which may result in suspension or expulsion from the University. The normal sanction for academic dishonesty is a grade of "XF", denoting "failure due to academic dishonesty." That grade will normally be recorded on the transcripts of students found responsible for acts of academic dishonesty in addition to any other action taken (e.g., suspension or expulsion).

3 Academic Dishonesty FAQ

1. Q. *My class occasionally has pop quizzes. My friend is **always** in class, but one day he/she had to miss class and there was a quiz. I just filled out a quiz and put his/her name on it and handed it in along with my quiz. Isn't that OK?*

A. **No!** If your friend is not in class that day, he/she did not deserve to receive points for the quiz. You are guilty of academic dishonesty by making up a quiz for your friend and turning it in.

2. Q. *A question on the homework asked me to define a scientific term. Since it's just a definition, I copied it from the book's glossary. Is that OK?*

   A. **No!** If you do not indicate that your definition is a direct quotation and give credit to your source, you have committed an act of plagiarism. Unless the question specifically directs you otherwise, you should always answer questions in your own words. Warning: even if you quote the definition and include your source, your instructor may not give you credit for the problem if he/she requires you to write the answer in your own words. But, you will not be guilty of academic dishonesty.

3. Q. *My friend and I talk about the homework questions and help each other understand the topics they cover. Since we worked together, isn't it OK if our homeworks are the same?*

   A. **No!** When you write up your homework answers, you and your friend should do so separately. Your answers will have the same general meaning, but the wording will be completely different.

   Here's an example of a question and two answers written by people who have discussed the topics, but then written the answers separately.

   Question: Explain the difference between the scientific terms "hypothesis" and "theory".

   Answer 1: A hypothesis is an educated guess about how or why something works. It is a working idea that has to be tested or compared to real life observations to see if it has any validity. A theory is a hypothesis that has been tested many times and has always been supported by the results of the tests. Once this happens, the hypothesis is called a "theory" and scientists rely on it as always being true, so they can use it as a basis to test new hypotheses.

   Answer 2: A hypothesis is a preliminary and very basic version of a theory, at the beginning of the scientific process. Once a hypothesis is tested, refined, and fleshed out, it starts to become a theory.

4. Q: *My friend and I worked out a math problem together. Shouldn't the answers be identical to at least 4 decimal places?*

   A: **No!** When you and your friend work on math problems together, you should discuss the following aspects of the problem:

   - Do you understand what the problem is looking for?
   - Do you have an appropriate equation?
   - Do you know what each term in the equation means?
   - What input values do you have?
   - What units should you be using?

   When you do the actual calculation, you should each put the numbers into your calculator separately (or work out the math by hand separately). When you do this, you and your friend will probably round numbers differently in the various steps or perform equivalent operations in different orders. The result will be a slightly different numerical answer. That's OK! If a problem asks you to calculate something like the distance to a galaxy and you get $1.15 \times 10^9 lyr$ and your friend gets $1.13 \times 10^9 lyr$, one of your answers is **not** wrong! The slight differences are because you did the computations separately.

5. Q. *I know I shouldn't copy from the textbook word-for-word, but if I rearrange the phrases and use some synonyms, then I'm not plagiarizing, right?*

A. **Wrong!** You need to completely rewrite the material in your own words, sentence structure, and paragraph structure in order to not be plagiarizing. Otherwise, you are paraphrasing and failing to credit your source.

The following is an **actual** homework question asked in ASTR 100, the relevant source text from the textbook, then an **actual** answer to the question that is plagiarized, and lastly an **actual** answer that uses the information from the textbook, but is written in the student's own words. (The students' answers are not attributed to protect their privacy.)

Question: Briefly describe Jupiter's cloud layers. How do the cloud layers help explain Jupiter's colors?

Relevant information from textbook: "Jupiter has three primary cloud layers, which we can understand by considering temperatures at different altitudes. Just as the temperature tends to fall as you climb up a mountain on Earth, the temperature drops with altitude on Jupiter's atmosphere. About 100 km below the highest cloudtops, the temperatures are nearly Earth-like and water can condense to form clouds. The temperature drops as we go higher, and about 50 km above the water clouds it is cold enough for a gas called ammonium hydrosulfide to condense into clouds. These ammonium hydrosulfide clouds reflect brown and red light, and thus produce many of the dark colors of Jupiter. Higher still, the temperature is so cold that ammonia condenses to make an upper layer of white clouds. The tops of the ammonia clouds are usually considered the 'cloudtops' of Jupiter, which is why Figure 8.6 shows this altitude as zero altitude for Jupiter." (Quoted from *The Essential Cosmic Perspective*, 3rd edition, by Bennett, Donahue, Schneider and Voit, published by Pearson/Addison Wesley.)

Answer that is plagiarized: *Jupiter's three primary cloud layers change colors with temperature (because of different altitudes). As altitude increases, the temperature drops (as with mountains). One hundred km below the highest cloudtop, water can condense to form clouds (like Earth). Going higher to 50 km above the water clouds, ammonium hydrosulfide can condense into clouds because it is cold enough. These gaseous clouds reflect brown and red light, thus producing much of Jupiter's dark color. Next highest is an upper layer of white clouds where ammonia condenses. The tops of these clouds are called "cloudtops," where the altitude is zero.*

This answer is plagiarized because the student basically took the ideas from the textbook in the same order and shortened them by removing some phrases; this poorly-paraphrased material is not attributed to the textbook.

Answer written in the student's own words: *Clouds are composed of droplets of liquid. These liquid droplets are formed when gasses condense. Jupiter's cloud layers are composed of different gasses: ammonia, ammonia hydrosulfide, and water, that each condense at different temperatures, forming different cloud layers. The cloud layers have distinctive colors that correspond to different layers of condensed gases. The coldest temperatures of Jupiter's outer atmosphere condense the ammonia and form yellow clouds. Temperatures a little warmer condense the ammonia hydrosulfide which forms orange clouds. The warmer inner layer condenses water to form white clouds (like those on Earth).*

This student has read and absorbed the material from the textbook and then written a thoughtful answer to the question. The answer includes the main points the textbook made, but in an original format and phrasing. **Note that this answer is not any longer than the plagiarized answer!** A well-written answer doesn't have to be long!

6. Q. *If I copy information from a website, do I have to attribute it?*

A. **Yes!** Websites can be valuable sources of information, and they have authors. If you quote or paraphrase material from a website, you must give credit to that website or you

will be committing an act of plagiarism. Look for an author, department or university to be credited on the webpage - if you cannot find one, list the URL as the source.

A warning about information from websites: anyone can write a webpage. If you search for information on a topic, the webpage you find may not be from a credible source. Your best source of information is your textbook or websites that your instructor or teaching assistants point out.

7. Q. *Just to be safe, should I credit the textbook at the end of all my answers?*

   A. **No!** You should be combining information that you have absorbed from the textbook lectures, your teaching assistants, and your own basic knowledge and using that to write an original answer, so you deserve the credit! That's the goal of taking the class!

   Also, your grader wants to see that you can express the concepts and ideas in your own words - if you claim all your answers are from the book, you are not demonstrating your comprehension of the material. In some classes, this means that you may not receive full credit.

   Finally, you should give the textbook credit only for what it says. Falsely attributing information to a source is not an honest practice.

8. Q. *I've been so busy this past week that I didn't have a chance to do the homework, but my friend did it. Is it OK if I copy it from him/her? I'll make sure to learn the material before the exam.*

   A. **No!** If you copy a homework from someone else, you are committing two acts of academic dishonesty: first, you are plagiarizing their work; second, you are handing in work that you did not do yourself. In addition, if your friend lets you copy his/her homework, he/she is also committing an act of academic dishonesty by facilitating your dishonesty! If you don't have time to do the homework, then don't do it. A zero on one homework is better than an XF for the class.

9. Q. *There are so many people in this class, it won't hurt anything if I cheat a little bit, will it?*

   A. **Yes!** First, cheating is morally wrong and against the university's Code of Academic Integrity.

   Second, cheating does affect the entire class. ASTR 101 is generally graded on a curve, where each student's performance is compared to the class average rather than a fixed grade scale. That means that if you raise your score by cheating, you lower the score of **everyone else in the class** - you are effectively stealing from all of your fellow students. Each of them would certainly consider this to be wrong!

10. Q. *My friend has been having trouble understanding a math problem on the homework. Is it OK if I write up the problem in his/her homework and explain it to him/her?*

    A. **No!** If your friend is having trouble with a math problem and you understand, by all means, discuss the problem with your friend. Write out an example problem (using different values) on a piece of paper or chalkboard. However, when it comes time to write up the homework problem, your friend must do so on his/her own! If your friend is really having trouble with the problem, encourage him/her to come and see one of the TAs or the instructor.

Cheater, Cheater

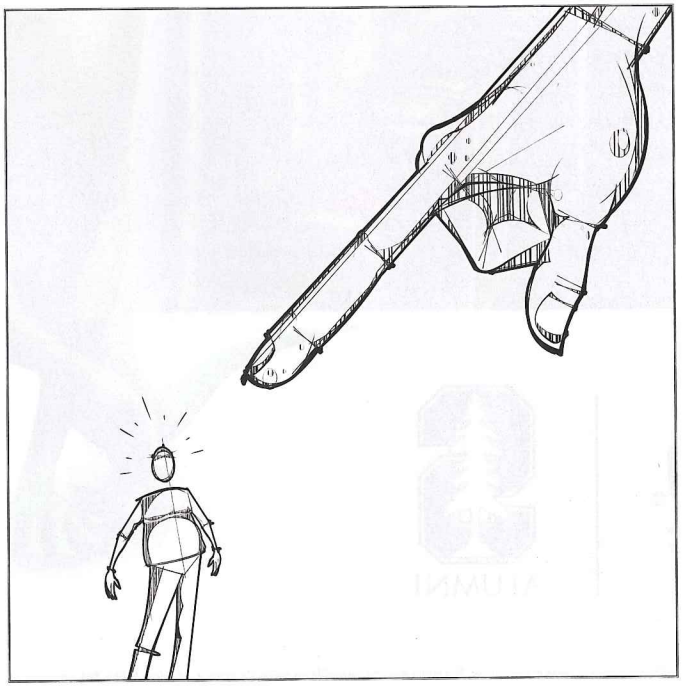
A momentary lapse of integrity can be enough to scare you straight.

THIS IS A HARD STORY TO TELL . . .

In my junior year of high school, I was closing out what had been a memorable and meaningful final semester. A few weeks earlier, the adviser for the student newspaper had notified me that I would be the editor during my senior year, and planning had already begun for our first issue. I was involved in several other extracurricular activities, and had a demanding course load and a part-time job at a local gas station. Like lots of kids that age, I was busy.

I needed some breathing room, and I figured the final exam in American history would be one place to find it. The course was taught by an assistant football coach—a burly, taciturn guy who could induce compliance with nothing more than an intimidating glare. Unfortunately, he was better at teaching tackling than he was at, say, illuminating the complexity of 19th-century labor law. I assumed the test would be easy, and I had other priorities. I showed up to the final poorly prepared.

Most of the questions were multiple-choice and most of the answers I knew, but there were a handful that stumped me. By the time I had finished the test, dread had settled over me—a realization that I was not going to ace this test, and that my final grade in the course was not going to be the "A" I expected. As I walked toward the front of the class to turn in my test paper, another student's paper was sitting on the teacher's desk in plain sight. A quick glance was all I needed to recognize that one of the answers on my test was wrong and his was right. I paused, feigning indecision about an answer I had chosen, stepped to one side and changed my answer. The teacher eyed me warily, stood up and asked for my test paper. He looked at the paper, looked at me and said under his breath, "I could give you a zero."



He didn't, but he didn't need to. And maybe he knew that. The shame I felt was punishment enough; I carried it around for days, feeling as if I had betrayed myself and everyone associated with me. I worried that my teacher/coach might assume I behaved like this all the time. It was only one question on one test, but the damage it did to my sense of self was enough to deter me from ever cheating again.

I recalled that episode with disquieting clarity while reading **Joan Hamilton's story about the psychology of cheating on page 58**. Joan examines the motivations that persuade people to momentarily bend their values to accommodate a shortcut. Expedience is a powerful, seductive force. I imagine all of us have fallen under its spell at some point.

Given the number and prominence of cheating scandals in recent years, one could legitimately ask whether integrity is in tatters. Is cheating more prevalent now than in earlier eras? Maybe; maybe not. The better question may be what we can do to help us resist the temptation.

Certainly, the shame associated with cheating can be a formidable disincentive. As I discovered in that classroom long ago, exposed and humbled by the specter of disrepute, I never wanted to feel that way again. Whatever else I learned in that history course, nothing was more important than that. ■

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