

ASTR 101L, Spring 2020 – Extra Credit Assignments

Due date: April 24, 2020

Instructions:

The following page lists five assignments that can be turned in for extra credit in this lab section. You may do any or all of these optional assignments for 1 bonus point each. Bonus points are not factored into the curve for this course, and therefore, they are an excellent way to improve your grade while having a little fun! *These assignments are valid for Amy Glazier's labs only.*

To submit extra credit assignments:

- Complete as many of the assignments as you want.
- Save your file as “ASTR101L_(assignment name)_(your surname)”
 - E.g.: for the first one, my file name would be “ASTR101L_EC1_Glazier”
- E-mail aglazier@unc.edu. Attach your file(s) to the e-mail. The subject line should be “ASTR 101L 422 Extra Credit: (Your Name).”
 - **If you are not submitting all your extra credit at the same time, please e-mail additional assignments to me as a reply to your first e-mail.** This makes it easier for me to find your extra credit in my inbox and make sure it gets counted.

EC1 – Favorite object. What is your favorite object we've observed this semester? Write a short paragraph (~100–250 words) describing the object and explaining why it's your favorite. Cite any references you use (listing the book title or website URL at the end is fine). Save it as a Word/LibreOffice document or PDF and email it to me.

EC2 – Favorite lab. Which was your favorite lab we've done this semester? Write a short paragraph (~100–250 words) describing why you enjoyed this lab. Save it as a Word/LibreOffice document or PDF and e-mail it to me.

EC3 – BW image. Take a good image in any HiThru filter of any object of your choice *that we have not observed this semester*. Make it look good in Afterglow, bring out the details in it, then save it and e-mail it to me. (If you need ideas for objects, ask me!)

EC4 – 3-color image. Take R, G, and B images of any object of your choice and combine them to make a 3-color image. You will need Photoshop or some other imaging software to do this, but you should have free access to it through UNC. Save your final color image and e-mail it to me. (If you don't know how to do this, I can show you how!)

EC5 – Physics / astronomy events. You can attend a planetarium show at Morehead Planetarium (be aware that some of these cost money), visit a science museum (such as the one in Raleigh), attend a physics- or astronomy-related talk, or some other similar event. Tell me where you went, what you learned, why it interested you. This one is very flexible; the idea is some kind of astronomy-related experience that you can tell me about in 500 words or less. Ask me if you have another event in mind that isn't suggested here!

If you'd like some ideas, the UNC Physics & Astronomy department has a calendar of events on or near campus: <https://physics.unc.edu/events/list/>

Pretty much anything you find on that calendar—the colloquia (invited talks by a physicist or astronomer), public talks around the Triangle, and presentations by graduate students (such as PhD or master's defense presentations)—should be free of charge and would work for this assignment.