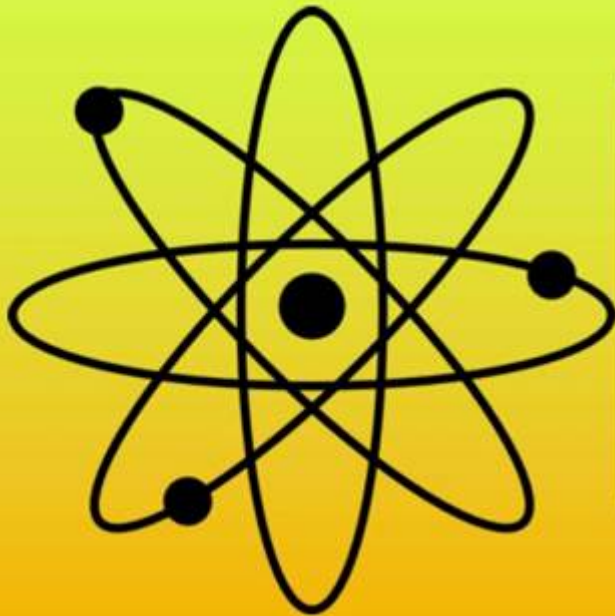


Beyond Boulder

Career Mentoring for PHYS & ASTR Majors



Join Prof. Chuck Rogers (PHYS),
Dr. Marty Snow (LASP/REU),
Prof. Erica Ellingson (APS) and
Avery Schiff (APS) to discuss:

- How can I get research experience at CU?
- Should I get an REU? UROP? What are they?
- Can I get an internship in industry?
- What about teaching, outreach, informal ed?
- Am I better off just focusing on my grades?

November 28, 5-6pm
Duane G130

Free Pizza!



Questions? Contact: Nick.Schneider@lasp.colorado.edu

Pre-professional Experiences

- Erica Ellingson, APS Faculty (Research, CU-STARS)
- Avery Schiff, APS Grad student (REU's, CU-STARS)
- Alysa Derks, APS Undergrad (REU, LASP)
- Marty Snow, LASP (REU's)
- Murti Nauth, APS Undergrad (Fiske)
- Chuck Rogers, PHYS Faculty
- Nick Schneider, APS Faculty

Beyond Boulder, Nov 28th 2016: Please sign in

Name	Dept.	Current/Past Experience	Desired Experience
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			

“Experience” examples: Research w/ faculty, REU, LA, Fiske volunteer

Pre-professional Experiences

Research

- Local researchers
 - PHYS (attend PROS)
 - ASTR (attend FRT's and URP)
 - UROP's
 - Independent Study
 - Honors Thesis
 - NIST, SwRI, NCAR, NOAA
- REU's

Common Themes

- Qualifications, GPA, time
- Resume/CV
- Initiative, "Just Showing Up"

Teaching

- Learning Assistants
- CU Teach

Informal Education

- Fiske Planetarium
- Sommers Bausch Obs.
- DMNS
- CU-STARS

Industry

- ASV Day
- Ball, LM

14 semester-long
research projects
available!

Undergraduate Research Symposium

- This is a mini-symposium for undergrads who are interested in doing a short-term research project within APS.
- Various speakers (faculty, postdocs, and research associates) will present ideas for a project.
- Undergrads can then apply via email (with a cv) for the positions they are most interested in.
- Coding skills required!



Location: Duane Physics Room G130
Date: Friday December 2
from 5-7pm

Refreshments will be provided!

For any questions, please contact Dr. Ann-Marie Madigan at:
annmarie.madigan@jila.colorado.edu



Astrophysical & Planetary Sciences

UNIVERSITY OF COLORADO **BOULDER**

Research Experience for Undergraduates (REU's)

What They're Like

- Marty Snow,
- Alysa Derks

How to apply, where

- Avery Shiff

EPO Volunteer Positions at DMNS

So, I volunteer in the Space Odyssey exhibit at the Denver Museum of Nature and Science. I did not find it difficult to obtain a position there, though there are only a handful of times each year that they interview for new volunteers. Specific knowledge of space and astronomy is not necessary, but as physics and astronomy majors I would think the odds of getting a position are greatly increased. Prepare just like any job interview and show them your passion for science!

Every day in Space Odyssey is different. There are multiple permanent fixtures to work at, and several mobile stations that can be pulled out as well (they also have telescopes, solar and otherwise!). These range from fancy stuff like Science on a Sphere and the spectroscopy cart, to simple weighted bottles demonstrating different surface gravity between our planets. Some days you may not work at a station, you can just walk around and interact with the guests. That's the important part: talking to the guests, and acting as a liaison for the science. The science can speak for itself, but most people aren't willing to listen if it's not spoken enthusiastically and at a level that they can understand.

A key part is being able to communicate effectively with people of all ages, backgrounds, and education. Many times a day I have to switch from surface level explanations, to more intricate detail, and sometimes to the underlying math or physics. Being able to read your audience and adjust accordingly is important as a volunteer, and invaluable as a general life skill. This is obvious when looking at teaching as a career (school groups are not only common, they're the most fun to work with), but as a career scientist as well. The importance of communication at any level cannot be overstated. (The nice part about the museum is that communication and learning can be done in various, fun ways. The guests can see, hear, and get hands on experience)

Besides volunteers there are also paid staff members at Space Odyssey. They get to work with different exhibits, but are not supervisors or superiors to the volunteers. They're the ones that get to put on a space suit and be an astronaut in the Mars colony exhibit. Gates Planetarium also has its own staff. These jobs don't open up every day, but getting your foot in the door as a volunteer is a great first step (that's my plan!).

Basic DMNS volunteer info: <http://www.dmns.org/join/volunteering/how-to-apply/>

More specific Space Odyssey volunteer info: <http://www.dmns.org/join/volunteering/space-odyssey-galaxy-guide/>

For job opportunities at DMNS: <http://www.dmns.org/about-us/jobs-and-internships/jobs/>

Other museums to check out: Children's Museum of Denver, for those interested in early education and working with kids: <http://www.mychildsmuseum.org/get-involved/volunteer>; Wings Over the Rockies Air and Space Museum, for those more into history, aviation, and rockets: <http://wingsmuseum.org/becomeamember/volunteer/>

EPO Positions at Fiske Planetarium

Students can do anything at Fiske, from ushering (this is what volunteers do) to navigating/presenting our public shows, taking our inflatable dome out to schools and operating that, giving SOS presentations, doing science labs for K12 groups, selling tickets, and doing administrative things in the office. Work-study students have an advantage, but many of these opportunities go to students without work-study.

Jobs usually come from individual requests for interviews. The operations manager usually meets with them, sees what they're interested in, send them to get trained by another student, and they begin working. Jobs at Fiske aren't rare, but they heavily depend on what you want to get from the experience.

I'd say about 40 students currently work here. They do the things I mentioned above, but we also have a couple doing visual production stuff. It's definitely worth considering if you want to gain experience in giving scientific presentations and working with the general public. For those who would want to go the scientific communicator route, Fiske is great for that!

Volunteer positions are usually ushering or talking to the public about the exhibits. They allow people in the role to gain much responsibility and experience in working with others.

Working events at Fiske allows you to meet many types of people, some in the industry and some not. This includes working the general public shows and private events. In that way, working at Fiske can help you get a job. Fiske provides good opportunities to work special events if students happen to be working those events. Its greatest opportunity is that of networking. If you can network from the people you meet once or twice at Fiske, it is possible to land a more permanent job.

I think it depends on the type of career someone wants to pursue. Fiske isn't for everyone and the opportunities for furthering your career can be limited. For those who want to get involved with science education and communication, Fiske can be a great place! Generally, if you're looking for a fun place to work and gain team experience, ask for an interview.