

Applying to Research Experiences for Undergraduates (REU) Programs *and other similar programs*

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About me

- ❑ I directed the Computational Astronomy & Physics (CAP) REU program for five years
- ❑ I co-chaired UNC's Graduate Admissions committee for three years
- ❑ As an REU Director, I was involved in two networks of REU Directors in astronomy & computer science
- ❑ I have personally advised 39 undergraduates including 12 CAP REU students

Why do an REU (or similar) program?

- ▶ Try a type of research you can't do at UNC
- ▶ Take a deeper dive by working full time - produce conference-grade or publication-grade research
- ▶ Enjoy the cohort experience - sense of community and scientific identity
- ▶ Get to know a senior scientist who can write you recommendation letters from an outside perspective
- ▶ Benefit from writing/computing/speaking/career panel workshops and more
- ▶ No cost to you! A typical REU covers housing, food, and travel costs plus pays you \$500 per week
- ▶ Key to getting into grad school (or choosing another path)

Some of your options

- ▶ Traditional NSF REUs are all here:
http://www.nsf.gov/crssprgm/reu/reu_search.jsp
- ▶ The NSF IRES (International Research Experiences for Students) program is another resource:
<https://nsf.gov/awardsearch/advancedSearchResult?ProgEleCode=079Y,080Y,7727&BooleanElement=Any&BooleanRef=Any&ActiveAwards=true&#results>
- ▶ Major labs/telescopes often have one-off programs (STScI, NASA JPL/Goddard, LIGO...) plus there are internships for science writing, policy, etc. (SPS internships, National Academies Berkner program...)
- ▶ Useful compilation (including some programs open to foreign students, post-baccalaureates, etc.):
<https://physics.mnstate.edu/cabanela/research/reulist.php>
- ▶ Deadlines range from January-March, so start now!

Applying for REUs

- ▶ You'll be up against:
 - 300:10 odds
 - Students from institutions with limited opportunities for research - the NSF requires these to be 50% of every cohort!
- ▶ You'll need:
 - Grades/Transcript (may be post-check)
 - CV/Resume (may go in a web form)
 - Letters of Recommendation (1-2)
 - Personal Statement

General Prep

- ▶ Ask for letters 1 month ahead; send reminders
- ▶ Make a googledoc with deadlines and submission info for you & letter writers; apply to 20+ places
- ▶ Give letter writers your unofficial transcript, CV, and draft essay early to get feedback
- ▶ If there's a weak spot - say a bad semester when you had a family crisis - talk with a letter writer you know well to see if they can address it
- ▶ Include all experiences/skills - not just scientific
- ▶ Letters/**CV** should fit with & reinforce your story; get advice on this from letter writers

The Personal Statement

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(also <http://owl.english.purdue.edu/owl/resource/642/01/>)

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Remember:

- ❖ your “story” ≠ your life story
- ❖ overcoming weakness is a strength (“grit”)

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- ▶ **Include everything REUs are looking for:**
Why you? Why now? Why this research? Why this REU?
Can you claim “Limited Opportunities for Research” for any reason (*economic/timing/interest*) ?

Customize for the programs you really want.