

National Science Foundation REU Application Essay Guide

What is an REU?

- REU is an acronym for Research Experience for Undergraduates. These programs are funded by the National Science Foundation (NSF) and take place over the summer across universities campuses in the US and even abroad. You may see similar programs listed under the acronyms such as SURF: Summer Undergraduate Research Fellowship.
- Most REUs fund students with stipends of \$4000-\$6000, plus travel and housing expenses, to carry out a research project under the mentorship of a faculty member.
- REUs fulfil multiple goals: 1) universities, they help recruit students to later apply as graduate students. 2) For students, they increase access to research opportunities, as a student's home university may not have a particular research field available. 3) Many REUs help broaden the participation of students from underrepresented backgrounds.

Why should I apply:

- REUs can serve as a great intro to research OR a way to start a project in a field not available at the home university.
- Participating in an REU can look great on your resume, and help build your mentorship and letter of recommendation writers. Having a letter writer on future applications from an outside school can be very valuable.
- REUs are a great opportunity to gain skills beyond research: working in teams; working in diverse groups; experience living away from home.

How/When do I apply?

- Search for programs here: <https://www.nsf.gov/crssprgm/reu/>
- We recommend searching across multiple field, not just your major. You are allowed to apply to programs outside of your major. Consider required/recommended skills that you will need.
- Due dates: Most REUs open in October or November and close in January to February. However, some programs will close applications once they fill up. Others will collect applications and make admissions decisions after the deadline. Even if a deadline is a long ways off, you should consider applying early.
- Apply to multiple REUs: We see students apply to 10-15 REU applications in a season. Be open to multiple opportunities, even if it doesn't seem "perfect." If you only applying to one REU, you will likely not get in.
- **Version control: Carefully label your application docs with the school name and your last name. You will be applying to multiple programs.**

Application Advice: What to write about yourself

- Since you will be applying to multiple programs, the requirements of what you will need to write will vary. However, most applications will have you write about:
 - **your background – personal and academic**
 - **your interests in research**
 - **your future career goals in research or other fields**
 - why you are interested in the particular REU

Areas in bold can likely be used across applications, adapted to word length requirements. **For each REU you will need to talk directly about that program. This is perhaps the most important part.**

Application Advice: What write to about the program you are attending

- **Include specifics about the specific program in your application to that program**
 - Do not submit a generic application essay for all programs
 - Why do you want to participate in this REU?
 - What specific aspects of the program are appealing?
 - Have you studying/researched this topic before?
 - What do you bring to the program?
- Previous research experience, if any. Does it relate to the program you are applying to?
 - Are you in a lab at UTSA? If not, are there projects that you are doing in coursework that are research oriented? For first-year students, are there other experiences you want to highlight?
 - Describe your prior research background. What types of projects are you engaged in? What training do you have (equipment, software, etc.). What types of research questions is your lab considering? What results did you get?
 - What did you get out of the experience?
 - Consider soft skills that you developed: Did you work with others on a team? How were you a team player?
- Possibly include: Other experience you have outside of research that will help you in this REU.
- Future goals and how the REU experience will contribute to them (~~this will help me get into graduate school~~)

Recommendation Writers:

- Most REUs require 1-2 letters of recommendation. These letters should ideally be someone from a STEM field. Advisors, counselors and high school teachers will not be as influential as a university professor, especially one in your field.
- First year students: get to know your faculty, participate in class, and attend office hours.

Ask:

- someone who will write you a positive, enthusiastic and detailed recommendation letter
- someone who has directly supervised you in an academic or research setting
- a professor from a small class where one-on-one interactions were frequent or from a larger class where you distinguished yourself through your work and interacting with the professor

- If you do not have a faculty member who can support you, possibly ask a supervisor at a job who can speak to skills you have that will translate to a research setting.

Timeline:

- Faculty need time to support you. Ask them four weeks in advance of your submission date.
- It is ok to have the same faculty member support you for multiple REUs. Provide them with a list of programs, due dates, etc.
- Provide them with a draft of your application. They may only need one of your REU applications and a resume.

Writing the Essay: General Structure

Guidelines: *word count and requirements vary – check each REU application for specifics*

Paragraph 1 (5-6 sentences)

- Introduce yourself: what year are you in at UTSA? What is your major?
- What topic/field are you interested in studying?
- How did you come to be interested in this field?

Paragraph 2 (7-8 sentences)

- Why did you choose this specific REU? (*remember to tailor your essays to each REU program*)
- What interests you about the research? The lab? The professors? Do your research here and look at the faculty and labs beyond the REU page.

Paragraph 3 (7-8 sentences)

- How do your research experience and/or interests align with this REU?
- What research and/or academic skills are you bringing to the REU?
 - Describe your experience working in a research group or in another team environment.
- What other experience do you have that you will bring to the REU?

Concluding Paragraph 4 (5-6 sentences)

- What are your future professional and/or academic goals?
- How will participating in this REU help you get closer to reaching these goals?
- Are there any gaps between your knowledge and/or experience with what you will be doing in the REU? Of course!
 - How do you plan to fill in the gaps before the REU program starts?
 - If you can't fill in a gap, talk about how you can approach new tasks/experiences during your REU experience. How will you embrace this challenge?
- Consider thanking the committee and indicating that you are interested in further discussions about the program.

Final checks:

- While we cannot offer application review for every REU you apply to, we are happy to work with students on one application, which you can then use as a basis to apply for multiple programs. Please try to work with us 4 weeks before your submission date. Email us your essays as a word doc (no PDFs) at onca@utsa.edu.
- Share with your letter writers and see if they have feedback!
- **Version control: As you adapt material from your base essay, use CTRL+F (Apple + F) to search for keywords from previous essays (other university names). Also look to delete comments in the margins or in-text that others may have made.**