A few tips and tricks for getting into research as a student in Earth Sciences at USC: lots of ways you can get involved!

Why research? It's fun and rewarding. You get to join a community of scholars. It's a great way to learn more and expand your intellectual horizons. It's an opportunity to take advantage of being at one the leading major research universities in the US, and to help create greater understanding of the world around you. It could open up new and exciting career opportunities. And whatever you end up doing for a career, it looks great on your CV.

Structured class projects

Class Projects

- many classes include research projects – if you particularly enjoy a project you do, talk to the professor about ways that it might be developed into further independent research
- even if that professor cannot accept you as a research student, ask them to recommend others who might!

Independent Research Opportunities

Directed research (490) and Senior Theses (494)

- you find a professor who is prepared to advise you, typically within your major but not necessarily
- you conduct independent research with them as a mentor and get academic credit in the process
- the amount of credit you can count towards your major depends on your specific degree

How do I find a research advisor?

- look at professors' web pages
- email/go to office hours and discuss
- talk to other students
- consider the new professors!

Research Fellowships

- you get paid a stipend to work under advisement of a faculty member
- SOAR (semester) and SURF (summer)
- WiSE (women in science & engineering)
- Provost Fellowships
- ESRAP (Earth Science Research funds)

see next page for some of the differences between these!

Research Jobs

A job as a research assistant

- you get paid (typically per hour) to work on an active project led by a faculty member
- great way to combine work-study hours with learning experience! (some job ads are for work-study only)
- note March deadline for summer work-study

How do I find this kind of opportunity?
Look for jobs like this at: https://careers.usc.edu/connectsc/

A great way to learn more is to attend the Undergraduate Symposium for Scholarly and Creative Work: https://undergrad.usc.edu/experience/research/symposium/
When you get going on your own research, this symposium a great opportunity to present your work… and even win prizes…

Thinking of emailing a professor and wondering what to say? See these tips from Viterbi: http://viterbiundergrad.usc.edu/research/

Lots more resources are available at: https://undergrad.usc.edu/experience/research/

Please approach the undergraduate advisor (Prof. Bottjer) for more advice specifically tailored to your interests.

And one last point: Don't be afraid to get involved as a first year or sophomore; if you start early, you can build skills & explore more!

What are some of the fellowships available to me for research as an Earth Science major (and what are all of these acronyms)?
Note that these fellowships cannot be combined in the same semester, but you can pursue them multiple times while you are a student at USC!

SOAR (semester research): https://dornsife.usc.edu/soar/

- Run by Dornsife, and to be eligible you have to be a Dornsife major with a GPA of 3.0 or higher
- Up to $1000 to support your research activities, paid to you as a stipend
- You are expected to work on an active research project led by a Dornsife faculty member (not come up with your own)
- Requires a research proposal (1 page), application form, and letter of support from faculty advisor; deadlines Sept for F, Dec for Sp

SURF (summer research): https://dornsife.usc.edu/surf-shure/

- Run by Dornsife, and to be eligible you have to be a Dornsife major with a GPA of 3.0 or higher (Seniors are not eligible)
- Up to $3000 for summer research, to cover research expenses
- You are expected to work on an active research project led by a Dornsife faculty member
- Requires a research proposal (1 page), application form, and letter of support from faculty advisor; deadlines mid-Spring semester

WiSE (Women in Science and Engineering)

- "WiSE Fellows" receive $500 stipend and attend events that help launch you into research
- "WiSE Researchers" (suitable for more advanced undergrads) receive $3000 stipend to work with a faculty mentor

Provost's Undergrad Research Fellowships (PURF)

- For students with cumulative GPA > 3.0, preferred > 3.5, and should have prior research experience at USC (very competitive!)
- Semester and summer opportunities; $3000 of support, with expectation of 8 weeks of research work at 20 hours/week
- Can support you to work on a professor's existing project, or an independent project if you have professor's support
- Requires an application form and letter of support from faculty advisor – plan ahead at least a semester in advance!

USC Provost's Summer First Generation Undergraduate Research Fellowships

- Preference for juniors and seniors in science & engineering with cumulative GPA > 3.0 (for first-generation students)
- Semester and summer opportunities, offering $3000 of support for 8 weeks of full-time summer research

ESRAP (Earth Sciences Undergraduate Research Apprenticeship Program): if you want to pursue research beyond the opportunities above, you can work with a faculty mentor and the undergraduate advisor to put together a proposal for up to $2500 in research expenses

This is just a subset of what is available at USC! And if you want to "test the waters" or simply get new experience without committing to a job, fellowship, or academic credit, you can always approach professors about volunteering in their lab or research group!

And don't forget to look at other USC opportunities at https://undergrad.usc.edu/experience/research/

Also, if you're looking for summer opportunities to expand your research experience even further, consider NSF's REU programs (some are hosted at USC but most are elsewhere): https://www.nsf.gov/crssprgm/reu/reu_search.jsp