Students Creating Knowledge: Undergraduate Research at the UC

September 2021
What is Research?

- In this presentation, we will discuss what defines a research university and how your students will benefit from studying in the University of California's research university system.
- Here are a few keywords associated with research to guide our discussion (knowledge, power, collaboration, and skills). We will highlight how research experiences give undergraduates the tools to generate knowledge themselves, the power to use their new knowledge to solve global problems and be connected with the broader world, to learn how to collaborate on problem solving, and to develop concrete professional skills.
But before we begin elaborating on our definition of research and its value, we want to know what your conception of this topic is! Please go to the voting link here and enter in any key words that occur to you when you think of the word “research” and its benefits for undergraduate students: https://www.menti.com/gk6skxfp21
Here’s a visual representation of our definition of research.

- Undergraduate research can take various forms. It happens both within and outside of classroom: as course assignments, internships, field study, or study abroad.
- Research is not just theoretical. It is career experience: undergraduate research teaches the professional skills your students will need, no matter what career field they choose. Some skills they will gain include:
  - How to gather information and determine what data sources are reliable
  - How to condense complex topics into storytelling for diverse audiences
    - Writing reports
    - Giving presentations
    - Creating informational videos
    - Designing web pages and social media channels
  - How to plan and execute complex projects
  - How to write grant proposals
  - How to work within budget limitations
- Research is a problem solving tool, which allows students to create knowledge themselves and to self-confidently seek solutions to challenges.
- Research can be used for social change and community activism.
- Productive research results are achieved through community engagement, partnerships, and collaboration.
According to the 2014 UC Undergraduate Experience Survey results, most students feel it is important to go to a university with world-class researchers, as well as learn and participate in research.

A total of nearly 85% of the respondents in a 2014 survey of undergraduates at the University of California reported having completed or were participating in at least one research or creative activity while completing their Bachelor’s degrees. The type of undergraduate research activity at the UC varies, from a research paper assigned as part of course work to assisting a faculty member with research outside of the classroom.

As you can see here, a majority of students completed a research project or paper as a part of their assigned coursework. 30% of undergraduates participated in research outside of the classroom and received course credit, were paid for their work, or they participated in a research project on a volunteer basis.

The 30% of undergraduates who reported in 2014 having worked directly with a faculty member on research can be further narrowed down in the results from a 2016 survey, in which 23% of students assisted faculty with research and 23% assisted faculty with a creative project. This close collaboration with faculty is a critical contributor to the outstanding post-graduation success of UC alumni. Nearly 40% of UC undergraduate alumni go on to complete a graduate degree within 15 years of graduating from the UC, and graduate degree completion rate for underrepresented minority students are as high or higher than for other students. This results in higher average earnings for UC alumni than for graduates of other four-year institutions in California.

Sources:
UC alumni graduate degree outcomes
Personal Economic Value of a UC Degree
https://www.ucop.edu/institutional-research-academic-planning/_files/personal-economic-value-of-a-uc-degree.pdf
To sum up the survey data, undergraduates report a high level of satisfaction with the research opportunities the UC has to offer.

Undergraduate Research: A Student’s Perspective
Beyond the Lab: Research in the Humanities and Social Sciences

• Research doesn’t only take place in the lab, or even in the archive: undergraduate research in Humanities and Social Sciences allows students to get out in the world and seek solutions to problems that affect them personally and impact their communities, while building crucial professional skills.
• Research is collaborative learning: Humanities and Social Science research projects often cross disciplinary boundaries to make new discoveries and find innovative solutions, and developing teamwork competencies is at the core of any undergraduate research internship.

• Undergraduate research in the Humanities and Social Sciences can be combined very well with study abroad or domestic travel and field work. Often there is a community service element to research internships, and this means that your students who get involved in research most likely won’t just be sitting alone in an archive. Instead, they will be meeting people, investigating key questions developed in collaboration with others, and learning how to take responsibility for a shared problem-solving mission.

• Research projects in the Humanities and Social Sciences come in different formats: students may join a research institute with already existing projects, or they may design their own project to be carried out under faculty or graduate student mentorship. Some projects are offered on a volunteer basis, some students may receive credits towards completion of their degrees, and some projects offer stipends.

• There are funded undergraduate research opportunities at many UC campuses, but here is just one example (more will be shared later in this presentation): the UCLA Undergraduate Research Fellows Program (URFP) provides funding of up to $3,000 for students working on research or a creative project in the Humanities,
Arts, or Social Sciences under a faculty mentor. Fellows have the opportunity to publicly present the results of their projects at the Undergraduate Research Week. (http://hass.ugresearch.ucla.edu/scholarships/urfp/)

- Research is collaborative learning for graduate students and faculty also; learning is not just top-down.

- Faculty members often learn from undergraduate research. Professors revise their course syllabi based upon the interests undergrads express in their research projects, and they integrate discoveries that undergraduates have made into their teaching. Because of the close collaboration between undergraduates and faculty in research internships, this is an excellent way for your students to get to know their professors well and for professors to get to know your students as individuals. Undergrads involved in research can obtain much stronger references for job opportunities or letters of recommendation for graduate school than students who have only taken classes.

- Humanities and Social Science research projects are not only for majors in these fields. STEM majors can also learn highly valuable skills that they can later apply to science and engineering professions. All professionals, regardless of their field, benefit from having strong written and oral communication skills. The ability to present complex information to diverse audiences is what Humanities and Social Science research excels in training students to do.
• Now let’s look at a specific example of a project that exemplifies so many of the features and benefits of undergraduate research that we’ve highlighted in this presentation: the Okinawa Memories Initiative. https://okinawamemories.org

• The OMI is a perfect example of how undergraduate research can bring the world closer. The OMI is based at UC Santa Cruz, but it is a multi-institution, international collaboration between UCSC, CSU Monterey Bay, CSU East Bay, and the University of the Ryukyus in Japan. It focuses on research on Okinawa as a global crossroads: Okinawa is a major strategic location for the whole Asia-Pacific region and hosts major U.S. military bases. As the location of the last major battle of WWII, just prior to the dropping of atomic bombs on Hiroshima and Nagasaki, it is also a key site for the negotiation of memory and of ongoing anti-nuclear and environmental activism.

• The OMI is also a great example of how undergraduate research takes place out in the world and how it can be combined with study abroad. Past interns (OMI Scholars) have travelled to Okinawa to meet and interview community activists, politicians, first-hand witnesses to history, fellow students from Okinawa, and even a Japanese rock star!

• Interns can either design their own research projects that have anything to do with Okinawa, or they join up with existing projects. Some of the past projects have included setting up exhibitions of historical photos taken in Okinawa, researching
the history of Christianity on the island and the influence of Hinduism on Okinawan culture, exploring the effects of tourism on modern Okinawa, and examining the effects of noise pollution from military bases there. Other interns have worked on developing content for the OMI’s social media channels. Several OMI interns have continued on to fully funded graduate school programs, on the strength of letters of recommendation they received from the OMI’s faculty sponsors. (Here is one example: https://classof2020.ucsc.edu/profiles/nirupama-chandrasekhar/.)

• Research is career experience: OMI Scholars work under the mentorship of professional historians, journalists, filmmakers, and museum specialists. OMI Scholars learn oral history and interview techniques, journalistic best practices, exhibition design, media production and public relations (photography, videography, audiovisual editing, website design, and social media communication), project management and development, and fundraising/how to talk to donors.

• Some past interns have been STEM majors working on interdisciplinary projects in the history of physics and medicine. Since Okinawans are among the longest-living people in the world, the island is a fertile location for medical research, and for exploring how genetic, social and historical factors interact in public health. The intern who worked on noise pollution in Okinawa, Felix Vazquez, was an Environmental Studies major who put his Geographical Information System technology skills to use. He later received $10,000 in grants to continue his urban planning research in Tokyo. https://news.ucsc.edu/2020/05/felix-vasquez-student-profile.html

• OMI internships are funded: students receive grants to do research in California during the academic term and then to travel to Okinawa during the summer. This is an example of how undergraduates from low-income families are supported and encouraged to participate in research and study abroad during their studies at the UC.
Video clip with OMI project director, UCSC Provost and Professor Alan Christy, responding to the question, “What do you see as the value of research for undergraduates?”

- Professor Christy emphasizes that what professors at a research university want to teach their students is above all “how to be somebody who can generate knowledge yourself.”
- Undergraduate research helps students progress beyond memorizing content for a particular major to learning methods of thinking and professional standards so that they can become experts themselves.
- Undergraduate research teaches students practical skills in areas such as fundraising, advocating for themselves, and techniques of persuasion that they can use in their careers.
- A research internship provides students with concrete experience that they can refer to convincingly in job interviews.
Busting the Myth
Who is research for?
There are many different opportunities to discover new knowledge and contribute to academic research and creative activities on campus in all disciplines. **A student’s major does not restrict the type of research in which a student can participate.** Research can be done outside of one’s major to **complement interests.**

- **Undergraduate research allows students to:**
  - Earn credit toward a degree
  - Build technical and transferable skills
    - Enhance a resume
    - Become more competitive when applying for awards, graduate school, and fellowships
  - Sharpen critical thinking skills
  - Apply knowledge and methods to real-world applications
    - Students really get the chance to create something new as they go into the lab or out into the field or study new policy; undergraduates can make an impact – you don’t have to have a Master’s degree or doctorate to make valuable contributions.
  - Attend and present research at national conferences
  - Explore career options
    - Gain practical experiences, integrate other industries into one’s passions, and confirm decisions to pursue future studies
Undergraduate Research
What is it good for?
WHAT DOES IT LOOK LIKE?

Courses or summer research?

- Summer research programs often provide school credit
- Students can take courses during the regular school year or attend summer research programs that often provide school credit.
- At UCI students take 199 course or other independent study courses for 1-5 units for a letter grade or Pass/Not Pass.

Staff and/or peer mentors are available on each campus.

- Students can either support faculty in their research or conduct their own.
- There are specific departments located on each campus that have advisors and mentors to guide students through the process.
There are a variety of programs in our UC system that support students in their research interests.

**UCI SAEP Summer Academic Enrichment Program**
- The program is fully funded and students receive school credit.

**UCR Mentoring Summer Research Internship Program**
- Students receive credit and a stipend for the summer.
McNair Scholars Program: [https://mcnairscholars.com/resources/](https://mcnairscholars.com/resources/)
- The McNair Scholars program is offered at the following UC Campuses: Berkeley, Davis, Los Angeles, Santa Barbara, and San Diego.
- Prepares qualified undergraduates for entrance to PhD programs in all fields of study.
- The goal is to increase the number of first-generation, low-income and/or underrepresented students in Ph.D. programs, and ultimately, to diversify the faculty in colleges and universities.
- Advisors help students apply for funding so they can present at local, regional, and national conferences.

Undergraduate Research and Creative Activities (URCA) /Transfer Student Research Award (TSRA) GRANTS AT UCSB
These grants provide undergraduates with funding for their own independent research project.
- Undergraduates can receive up to $750 for project related expenses.
- This is just one example of the many grants students can receive in all of our 9 campuses.
Undergraduate Research Journals
Each campus has its respective undergraduate research journal that gathers and publishes the best research produced by students across all academic disciplines.

- The goal is to provide students with the widest possible exposure of their research.
- The journals provide a forum at the campus level, while also supporting undergraduate researchers by showcasing their work with the larger community, funding agencies, and sometimes corporations.
• **UC Berkeley – Underrepresented Researchers of Color (UROC):** student-led organization grown from a partnership between the Office of Undergraduate Research & Scholarships and the American Cultures Center. Serves as a pipeline to increase representation of marginalized students in research programs and grad schools, and to seek to build a community of researchers of color.

• **UC Davis – Maximizing Access to Research Careers (MARC):** provides talented underrepresented, disadvantaged, and disabled students with intensive research experiences and prepares them for entry into high quality MD/PhD programs.

• **UC San Diego – CAMP in Science, Engineering, and Mathematics:** provides support for ethnically underrepresented students majoring in STEM to pursue research careers and stimulate serious consideration of graduate study.
• Students are generally working on their own research project, but it may be closely related to a larger ongoing project.
• When proposing a new topic/independent research project, it is typically related to the faculty member's/lab's current research topic.
• Many students will start out working closely with a graduate student or postdoc mentor so that they can learn skills while assisting with an ongoing project, and then they will progress to a more advanced or independent project while still receiving mentoring.
Networking involves having a “career conversation” with someone for the purpose of exploring careers or job searching to help answer important career-related questions.

- Explore career and jobs
- Find a job - 50% of all open positions are filled through networking
- Professor connections (great opportunity to get close to professors especially on big campuses like the UCs – build genuine relationships)
- TA/grad student connections (undergraduates can learn about graduate/PhD programs from the inside grad student perspective)
- Mentorship
- Connections with other students in your research area
- Industry leaders connections (can aid in job search after graduation)
So You’re Ready to Start Sciencing!

Tips for Student Research Success
Determine your interests

- What often keeps many students from starting Undergraduate Research is simply knowing where to start. Many feel as if they need to have a research project already in mind prior to joining a lab, but Undergraduate research is an exploratory experience. While it can be very overwhelming, here are some tips that we give to students:

Make it personal

- Research is very personal in nature and an interest in research can start as a way to find answers to personal questions.
  - Can we develop better cancer treatments with fewer side effects? Are there better or existing medicines we can use to treat illness in new and novel ways?
  - How can we increase access to educational opportunities in communities of color?
  - What can we do to help address environmental issues? Can we reduce our footprint by making simple changes to food production and packaging? Can we find new ways to package food while reducing waste?

Have the student tap into their entrepreneur side

- UCs do have Makerspaces and incubation centers that will help students with R&D (research and development) but a lot of this research begins in labs like Computer Science, Engineering, Arts, Economics,
Computational Design, etc...

- Encourage students to think outside the box, good research and product development NEVER happens in a silo.

Have students research their major or topics they find interesting

- Many times, students don’t realize how diverse a field or major can be. Let them go down the rabbit hole.
- Ask the students:
  - Why is this major exciting to you?
  - What do you find the most interesting and what do you hope to learn?

Example: I often talk to students who want to major in computer science in hopes to work at companies like Google, Facebook, Amazon and work in their AI (Artificial Intelligence) division. What many might not realize is that these companies require a large breath of skill sets and knowledge base. Companies often will look for students in Linguistics, Economics, Cognitive Science, Psychology and Computer Science. Possibilities are endless!

Undergraduate research is a great way to bridge the gap between your student’s interest.

- Encourage students to use keywords in their search.
- Encourage students combine fields like Material Science and Anthropology

Example: Dr. Albert Lin has a PhD in Materials Science and Engineering from UC San Diego. Albert is an award winning Explorer of the National Geographic Society, serial entrepreneur, UCSD scientist, and storyteller. From the remote highlands of Mongolia to the jungles of Guatemala he has applied an innovator’s approach to exploration. His career began with the Valley of the Khans Project, where he used satellites, drones, geophysics, and intensive ground exploration to search for the tomb of Genghis Khan. Albert has also applied similar approaches to Maya sites in Guatemala and First Emperor’s tomb in Xian, China. In 2015 he co-founded the digital k-12 education platform Planet3 Inc. (http://exploreplanet3.com) to democratize the “ah-ha feeling”!

“The most exciting thing about science is the unknown — anything is possible”, says Lin

Find Your Resources

- Every UC has several resources students can use to find Undergraduate researchers. These resources exist in academic departments as research coordinators, student successes centers like the career center, student clubs or ambassador programs.
- This can require some leg work on the par of the student.
**Research what Faculty are researching**
- Getting a general understanding of what is out there can be a great way to learn some keywords that students can use when searching for research opportunities. This leg work can be time consuming but is necessary. Make this exploratory work part a summer action item for graduating seniors.

**Example:** Had a student that lived in Arizona close to the University of Arizona, wanted to continue their work in Climate Change. We googled “University of Arizona + University of California Climate Change”= **UC3 - University Climate Change Coalition Members.** We learned that UofA and UC faculty members have been working together for a number of years and collaborating in climate change research and we got a list of who those faculty members were at each campus and their research topics.

**Can students going to a Community College do Undergraduate research**
- YES! Even if the student is going to a Community College or taking a gap year they too can do research.

- **Pro-tip:** Look up article citations and sources.
  - This is what faculty members do when they are looking for trends in research, see who is doing what and when looking for possible collaborators for future research projects.
Define your time commitment
  ○ Before students contact faculty, it is important to know how much time they have to devote to research
    ■ Have students think about the time needed beyond going to class. Remind them to also schedule time for:
      ● Self-care
      ● Basic needs like sleep
      ● Having a social life and hanging out with friends
      ● Study time
  ○ Once they have done that, have them look and see how much time they have.
    ■ Many labs don’t have standard business hours (M-F 8am-5pm).
    ■ If the student is willing to do their lab hours outside of business hours or on the weekends, they should let the faculty member know.
    ■ The time commitment can change from quarter to quarter. Sometimes the only time is the summer and that’s ok too.

Identify 4-5 faculty members whose research interests them
  ○ Once the student have determined this research topic, they have a general understanding on what research is out there, their next step is to look for research opportunities and seeing what faculty members are doing in labs.
    ■ Encourage your students to not limit themself to a major or
department.
- Have them check Google Scholar (better than normal Google) and look at lists of publications from faculty.
- Have them go to their university's website and look up faculty homepages for lists of publications.
- Have them look in the search catalogue of their university library for articles and books by faculty whose research areas interest them.
- Have them check and subscribe to the news sections of UC campus websites – what research breakthroughs are happening at their campus?
- Students are NOT LIMITED TO JUST THEIR CAMPUS!
- The UC system is a system. Faculty members will often do research with colleagues at other UC campuses and beyond.
- The research we do has global reach, students can also look for research labs closer to home to continue their work even during summer breaks or as part of their study abroad program.

- **Contact faculty members**
  - **Pro-tip: Do not spam or send generic emails to faculty members**
  - This is why we suggest students pick between 4-5 faculty members to start.
  - Once a student knows what they want to research, they contacted a research resource, they know how is doing what research in what labs and they have defined how much time they can devote, it’s time to contact faculty members.
  - It’s important to remember that FACULTY MEMBERS ARE NORMAL PEOPLE. While it can be intimidating to email them, just that one act shows initiative on the student’s part. Students can ask faculty members to:
    - Meet-in person during office hours
    - Meet at a café on campus for coffee or tea
  - Some UCs like UC San Diego have programs like [Coffee with a Prof](#) that give student vouchers to take faculty members and graduate students out for coffee or tea.
  - **Pro-tip: Faculty and graduate students LOVE free coffee and tea.**
  - Schedule a phone call or zoom meeting
  - Don’t discount the graduate students. They are a big part of research labs. Students can also reach out to TAs if they have a good rapport with them.

- **Follow up**
  - After meeting with faculty make sure students follow-up and thank them for their time.
  - If a faculty emails them “why don’t you come to my lab on Monday at Noon” the student should make sure to show up on Monday at
11:55am!

- To be early is to be on-time, to be on-time is to be late and to be late is unacceptable
  - Being on time means you value that person’s time..
- Building a lab is like building a team, faculty are looking for students who are:
  - reliable
  - going to get along with the rest of the lab
  - willing to do the work
  - going to be good collaborators
  - *Are genuinely interested in the THEIR research and not just looking to pad their CVs.*
Step 3: Start Sciencing!

**Understand the faculty/lab expectations**
- Ask about duties, responsibilities and deliverables

**Present your work**
- Academic conferences, research symposia

**Encourage each other**
- After a successful research experience, get the word out to others!

- **Understand the faculty/lab expectation**
  - Ideally, when initially meeting with faculty or prior to the first day, make sure the student knows what is expected from them:
    - Ask about duties, responsibilities, timelines and deliverables.

- **Present your work**
  - Student should look into presenting their work at academic conferences or research symposia. These are ways to network for graduate school and possible employment.
  - Some departments and labs will also help cover the expenses that come with presenting their work
    - i.e., conference fees, poster fees, transportations and travel, etc…
  - Examples of undergraduate students
    - Tour guide at UC Santa Cruz/Rhodes Scholar Garima Desai: double major in Environmental Studies and Economics who was a research assistant helping to study elements of urbanization that intersect with climate change and worked under the mentorship of Associate Professor of Environmental Studies Adam Millard-Ball.
Not all research will end up in a paper that will be published in an academic journal or with results that can be presented at a national conference. But students should still look to present their work at campus and department undergraduate research symposia.

- **Encourage others**
  - After a successful research experience, encourage other undergraduate students to pursue research too!
    - *Invite your students back to talk about their experience.*
This information and more will be available as a one-page flier in the resources folder.

Link: https://drive.google.com/file/d/1R0iThjKNlaFltS3PtJUMfQxAkA7_-_L-4T/view?usp=sharing
Why Should Undergraduates Do Research?
Research is personal
- Many research projects start as a way to find answers to issues that personally impact a student’s life
  - Example: heart disease in women

Research addresses issues in one’s community
- Examples: access to healthcare, increasing access to STEAM programs, finding new ways increase solar panel efficiency
- Some undergraduate projects start as high school service learning project or from volunteer opportunities.

Research is an equity, diversity and inclusion issue
- Research is a graduate/professional school and faculty pipeline
  - Graduate/professional school and faculty pipeline
  - What is the University of California doing about it?

What is UC doing about it.
- The University of California community values diversity, embraces inclusion, and honors excellence. Teaching, scholarship, research, creativity, innovation, and service flourish when all members of the community are welcomed, supported, and respected. Our work continues to fulfill these values. We are committed to removing barriers preventing full expression of our potential and to reflecting the population of California in
our faculty, students, and other academic personnel, especially those who have been systematically and historically underrepresented.

- There are MANY system, campus, division and department wide initiatives and programs that actively address issues of diversity in research, here is a very short list
  - **UC LEADS**
    - (UC LEADS) program prepares promising students for advanced education in science, technology, mathematics and engineering (STEM). The program is designed to identify upper-division undergraduate students with the potential to succeed in these disciplines, but who have experienced situations or conditions that have adversely impacted their advancement in their field of study.
  - **UC Berkeley – Underrepresented Researchers of Color (UROC):**
    - student-led organization grown from a partnership between the Office of Undergraduate Research & Scholarships and the American Cultures Center. Serves as a pipeline to increase representation of marginalized students in research programs and grad schools, and to seek to build a community of researchers of color.
  - **UC Davis – Maximizing Access to Research Careers (MARC):**
    - provides talented underrepresented, disadvantaged, and disabled students with intensive research experiences and prepares them for entry into high quality MD/PhD programs.
  - **UC San Diego – CAMP in Science, Engineering, and Mathematics:**
    - provides support for ethnically underrepresented students majoring in STEM to pursue research careers and stimulate serious consideration of graduate study.
UCSF’s anchor institution initiative was proposed by Howard Pinderhughes, professor of Social and Behavioral Sciences in the School of Nursing, at the 2015 School of Medicine leadership retreat.

- **What is an “anchor institution?”**
  - In declaring its intention to become an anchor institution – one that is anchored to its community and committed to its long-term health and viability – UCSF aims to capitalize on its position as the second largest employer in the city and its economic impact as a $7 billion enterprise to promote health equity through targeted efforts in three key areas: workforce development, procurement and community investment.

**Example of the UCSF All in Action**

The Neuroscape summer internship
- The Neuroscape summer internship program launched in 2017 with the goal of creating learning opportunities for young minds interested in science and technology.
- In summer 2021, the Neuroscape team proudly partnered with the [UCSF Center for Science and Education Outreach’s](https://www.ucsf.edu/education-outreach) new Pipeline Program to provide opportunities for local students to learn about translational neuroscience and technology. The Pipeline Program works with San Francisco Unified School District to facilitate youth development and career exploration for 10th-12th grade students.
**INTERN TESTIMONIALS:**

- *This internship was amazing! I had never learned about neurology, neuroscience, and research before, and this internship has completely changed my views on the medical and science worlds. As of now, I want to pursue a career in neurology and neuroscience research! The internship was incredible in how much it covered in the neuroscience field. It was also so cool to get to work with such amazing, experienced, knowledgeable mentors! They were so inspiring to me and were the ones who really excited me to want to pursue a career in research.* ~ Neuroscape 2021 Summer Intern

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UCSF Center for Science and Education Outreach’s: [https://cseo.ucsf.edu/](https://cseo.ucsf.edu/)
Online Research Program at UCI School of Medicine: http://www.som.uci.edu/research/summer-online-research-program/index.asp
UC Davis Young Scholars Program: https://education.ucdavis.edu/young-scholars-program
UC Santa Cruz Science Internship Program: https://sip.ucsc.edu/about/
UCLA Steve Tisch BrainSPORT Program Summer High School Internship: https://www.uclahealth.org/brainsport/internship
UCSD Research Experience for High School Students (REHS): http://education.sdsc.edu/studenttech/?page_id=657
- Here’s a link to the Undergraduate Research Opportunities database at UC Santa Cruz: https://ugr.ue.ucsc.edu
- UCLA Academic Advancement Program (AAP): https://www.aap.ucla.edu/