How to Get Involved in Research

Annaliese K. Franz
akfranz@ucdavis.edu
Faculty Director
Undergraduate Research Center

Lolita Adkins
lrenelson@ucdavis.edu
Program Manager
Undergraduate Research Center
Approximately 50% of all UC Davis undergraduate students assist faculty in research projects or creative activities during their academic career.

Source: UC Undergraduate Experience Survey, 2017
Research takes many forms, and what it looks like varies depending upon your major and interests. For example:

- Surveys and interviews
- Data analysis
- Laboratory benchwork
- Fieldwork
- Archive work
- Modeling and computations
- Design projects
What Does Undergraduate Research Look Like?

- Design Projects
- Creative arts compositions (e.g., art studio, music, dance and movement)
- Creative writing and poetry
- Film production
- Social Justice and Policy
Jobs & Careers involving Research

- Professor/Academia
- Business development
- Journal editors
- Career development
- Technical writers
- Scientific writers
- Technicians
- Information science
- Marketing/Sales
- Environmental science

- Public relations
- Public health
- Academic administration
- Program administration
- Teachers / Lecturers
- Curriculum development
- Public policy
- Regulatory affairs
- Entrepreneurship
- lots of industries
More than just a rec letter!

Benefits of Undergraduate Research

- Earn credit towards degree
- Build technical and other transferable skills
- Sharpen critical thinking and analytical skills
- Gain lab experiences outside of coursework
- Apply knowledge and methods to real-world applications
- Develop communication and writing skills
- Gain insight into career possibilities
- Experience with state-of-the-art instrumentation
- Enhance resume and build a professional network
- Attend and present research at national conferences
- Valuable opportunities for presentations & publications
- More competitive applications for awards, graduate school and fellowships
- Leadership and teamwork experience
- Gain a global perspective and the impact of research
- Increase self-confidence and persistence
- Connect with faculty across various disciplines

*Meet new people who share your passions and have fun!*
It takes more than a major…

93% of employers said that “a candidate’s demonstrated capacity to think critically, communicate clearly, and solve complex problems is more important than their undergraduate major.”

It takes more than a major...

How can you get involved in research, design and/or discovery experiences at UC Davis?
Whenever you are ready!

“Ready” = interested to get involved, Good standing, handling coursework well, able to spare 6-10 h/week (or more) working on project

New “snack” research opportunities such as FYS-CURES
URC Services and Resources

ONLINE

**Workshops (examples)**
- How to get involved in research
- How to write an abstract
- How to give a presentation
- Applying for awards

**Small Group Advising**
- Understand and prepare for undergraduate research
- Investigate opportunities and identify interests
- Tips for contacting a faculty research mentor

**Poster Printing for any conferences** ($80-120 value) – *not currently offered*

**$$ Awards & Funding, including summer programs**

Chancellor’s award, Travel award, Provost’s Undergraduate Fellowship (PUF), Publication Award, applying to summer research programs
Common Undergraduate Research Myths

- "Only STEM majors can do research."
- "Research only happens in the lab."
- "I can’t get a position if I don’t already have research experience."
- "There are no research programs for non-STEM majors."
- "I have to do research within my major."
- "I can only present at conferences if my research is completed."
- "I don’t want to go to grad school, so research isn’t for me."
- "I can’t do research because I need to get a summer job."
- "I don’t have enough time to do research."
- "I don’t know where to start looking for a research position."
- "The only reason to do research is to get a good rec letter."
Getting Started

• Keep a running list of interests
• Take self-assessments
• Look at Conference Abstract books (online)
• Ask Questions - don’t feel like you already have to be an expert; asking questions shows that you are interested!
• Interview people
• Read about career paths
• Make or update your CV/resume

Visit Internship and Career Center: https://icc.ucdavis.edu/
Consider what interests you most!

- What do you like to do?
- What energizes you?
  - What gets you excited?
  - What do you “nerd out” about?
- What tasks and activities make you completely lose track of time?
- Do you want to do lab work?
  - What would you miss about being in a lab?
- Where do you want to work?
  - How often do you want to change projects?
  - Would you like to work independently or as a team?
Interview a graduate student, TA, faculty, undergraduate student....

• What brought you to doing research in this field?
• What do you enjoy most/ least about it?
• What does your typical day/ week/ quarter look like?
• What steps did you take to break into this field? • What education did you complete?
  • Do you recommend an advanced degree?
• What skills are most helpful in your job?
  • What skills do people look for in this field? What skills do you need?
• What advice would you give to someone interested in perusing this field?
Action Item! Contacting Faculty

• **In person is better** (but we know not currently an option)
  • Before or after class
  • Office hours (even on zoom!)

• **Email**
  • Mind your email etiquette
  • Professional email
  • Express curiosity and motivation

• **Following up**
  • Sets you apart
  • Shows that you are still interested
Dear Professor X:

• Who you are (class level, major)
• What you are interested in (specific research problem, field, gaining experience with skill etc.)
• Why you are interested in this specific mentor or research area?
• Indicate availability (e.g. 10 hr/week for a year? For 199 units?)
• Why you? What skills do you have and what proof do you have that you possess these skills? (classes you have taken, prior experiences etc.)
• Thank them for listening

Sincerely (Best Regards, etc.),
Your full name
Your contact info
Dear Dr. Jessica,
I am a senior biology student and looking for research. Do you still have available opposition in your lab? I am looking forward to hear from you.

Thanks

Use professor’s proper title and last name – shows respect

Lacks grammar, basic letter etiquette and correct spelling

Why their research? No evidence provided to indicate anything about their research has been read
Hello,

I am student in the Plant pathology department. I am working on Sclerotium rolfsii in peanut. I am supposed to graduate on next fall and looking for the Ph.D opportunity.

I am interested in working with you. If you have any opening I would be glad to proceed further.

Regards,
Khiti Khiti
Dear Professor XXXX,

I am currently a third year Biological Sciences major at UC Davis. I had the honor being your student last quarter for BIS 102. I learned so much from you beyond the scope of the class about Zika virus, medications, and other important topics. I have been really interested in your research about insect repellents and I recently came across a research done by one of your students comparing DEET with a homemade recipe of a repellent. I never knew that evaporation of the repellent plays a role in its effectiveness, so that was a very useful comparison. I also heard from Professor XXXX that wristband repellents are better than usual repellents for human health because it doesn't come in contact with the skin. I would love to learn more from you about this topic in the near future.

If you have any room in your lab, can you accommodate me as part of your undergraduate research team? I have basic laboratory experience and I am willing to learn any additional lab techniques and protocols to assist you in any way I can. I am available throughout this summer and next year during school.

I have attached a copy of my resume to this email for your convenience.

Thank you for your time and consideration. I am looking forward to meeting you again.

Sincerely,

Students Name
Students Email

A CV/resume gives the professor a better idea of your specific work experience and provides detailed contact information.
Dear Professor Franz,

Hello, my name is [Student name] and I was enrolled in your CHE 128A course this past Fall Quarter. I looked at your research website to get a closer perspective on the different projects your lab is currently undertaking. One of your projects in particular involves research directly related to HDAC8, which to my understanding has been linked to acute myeloid leukemia, T cell lymphomas, etc. As a survivor of non-Hodgkin lymphoma, part of my long-term goals both academically and personally is to contribute to the progress being made in developing innovative therapies for cancer. One of my career aspirations is to run a research laboratory at the forefront of medicinal chemistry to help people who have been affected by the hardships of these diseases. My interest in chemistry began at a very young age and earning an A grade in your class this past quarter served both as an accomplishment but more importantly a testament to myself that I’m ready to pursue my fascination for the subject at a higher level. Given the opportunity, being a part of this lab as an undergraduate researcher would provide me with the ability to gain knowledge and experience, further my skills as a chemist, and contribute to the research your group is conducting. With this being said, my availability during the school year is 15-20 hours/week and 40 hours/week during the summer.

If possible, would you be able to meet during the week to further discuss the logistics of a potential position? Please do not hesitate to ask me for any supplementary information (i.e. transcripts, academic records, etc) and I will get those to you right away. Thank you for your time and consideration.

Sincerely,
Student Name
Overview to Finding a Research Position: Take Initiative and be Persistent

1. Make a list of possibilities based on what interests you

2. Look at conference abstracts and department websites for examples of research on campus; Read websites, papers etc. of research and faculty that you are interested in

3. Talk to TAs, other graduate students, peer advisors and/or other undergraduate researchers (informational interviews)

4. Contact professors directly
   - Look at the department/research websites
   - See who has sponsored undergraduate students
   - Attend office hours and ask about their research
   - Write and send professional E-mail
Some Remote Action Items

- Ask to attend a research group meeting
- Informational interviews
- Find virtual department seminars
- Practice searching the literature and write a literature review
- Attend a Virtual Conference (SACNAS, ACS, etc)
- Watch webinars and tutorials
- Watch JOVE.com videos
- Online laboratory safety training
Some Remote Action Items

Online Resources to Stay Involved with Research

**We will update this web page on a regular basis with new resources!**

**Website resources to help you stay involved with your research and develop professional skills**

While UC Davis has suspended in-person classes and lab work, the Undergraduate Research Center has compiled various online resources that will help you continue to think critically about your research, learn techniques and engage in professional development.

Check out a list on the URC website!

https://urc.ucdavis.edu/online-research-resources
Remote Action Item – Safety Training

Check out a list on the UCD Safety Services Website:
https://safetyservices.ucdavis.edu/training/all

This is the required course for campus and others depend on the type of research (to register, you login with your Kerberos):

<table>
<thead>
<tr>
<th>UC Laboratory Safety Fundamentals</th>
<th>Required lab safety fundamentals, chemical safety, general safety. Course duration estimate: 1 hour eLearning (LMS)</th>
</tr>
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NOTE: If you receive an error message when you try to login, please contact Staff Development and Professional Services (SDPS) at sdps@ucdavis.edu or (530) 752-1766.

Any non-employee UC Davis students (as well as volunteers and vendors, etc) need to have a LMS account created before they will be able to sign up for training and the SDPS will be happy to do this for students. To have a LMS account created please send an email request to sdps@ucdavis.edu. (if someone is not a current UC Davis student, or if they are a temporary affiliate, then they must complete a Temporary Affiliate Form (TAF) to obtain a Login ID before they will be able to sign up for training.)
Remote Action Item - JOVE

• Watch JOVE videos:  https://www.jove.com
$ Programs and Awards $

- Provost’s Undergraduate Fellowship (PUF) $$
- Chancellor’s Awards $$
  - Award for Excellence in Undergraduate Research
  - Award for Excellence in Mentoring Undergraduate Research
- Undergraduate “Travel” and conference registration Awards (e.g. to National Conferences, including virtual conferences) $$
- Hanson Family Undergraduate Publication Award $$
- IIFH Undergraduate Research Fellowship $$
- Research Rockstars Undergrad Slam $$
- Undergraduate Research Ambassadors $$
- Special Undergraduate Research Programs $$
  - NSF LSAMP/CAMP Scholars
  - MURPPS Scholars
  - Mentor-Mentee Program in Humanities, Cultural Studies & Social Sciences
  - McNair Scholars Program (Office of Grad Studies) … and many more!
Sponsored Undergraduate Research Programs

**Goal**: To broaden participation in research by helping recruit and retain students from underserved communities, to facilitate their academic success, and encourage their transition to graduate study.
Research Programs

Information Sessions
August 12th & August 17th
CAMP & MURPPS Scholars

- Submit application
- Letter of recommendation from faculty
- Copy of transcript
- Applications are reviewed by committee
- Selected applicants will be interviewed
- Notifications by late September

Deadlines for Fall Quarter TBD

Apply at: urc.ucdavis.edu/camp/prospective-students
https://urc.ucdavis.edu/murpps/prospective-students
URC Location and Contact Information

Currently all ONLINE/REMOTE for spring, summer and fall due to COVID

- **Location**: 2300 Student Community Center
- **Hours**: Monday–Friday; 9:00 a.m.–5:00 p.m.
- **Website**: urc.ucdavis.edu
- **Email**: urc@ucdavis.edu
- **Phone**: 530-752-3390
Check us out Online for Events, Resources, Advice from other students, Program info and More!

Undergraduate Research Center
Office of Undergraduate Education

Undergraduate Research Center

Play Video  Discover Research

urc.ucdavis.edu
Where to go from here

Do

• Keep an open mind
• Keep a list of interests and follow up on them
• Keep a list of skills and training
• Start looking for support
• Learn from every opportunity
• Think about the qualifications you might need in the future
• Network
• Relax and don’t pressure yourself
• Push out of your comfort zone

Don’t Do

• Expect your first internship or job to be perfect
• Silo yourself
• Get caught up by mishaps
• Get discouraged
What will you discover?

Q & A

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