Info Session for SURF - Summer 2019

Sean Burns, Ph.D.
Director, Office of Undergraduate Research
I was able to visit archival libraries all over the world - The British Library, the National Art Library in London, the New York Public Library for the Performing Arts, the New York Historical Society Archives, and the Smithsonian and Library of Congress in DC.

I spent the summer becoming an expert in mid-nineteenth century theater history, and that breadth allowed me to find connections that no other scholars have talked about in regards to my topic, the Astor Place Riot.

- Eli
Humanities fellows...

Mieko Anders: English & Sociology, Summer 2018  
Mason Cummings: Philosophy, Summer 2018

**THROUGH THE MOURNING VEIL:** GOthic Tropes AND RACIALIZED LABor IN THE "POSTWAR" NOVEL

Mieko Anders  
SURF 2018  
English, Sociology  
Faculty Mentor: Steven Lee, English  
Anselm Fund

**Inner Vision:**  
Mondrian & Entoptics  
Mason Cummings  
Major: Art History - Mentor: Whitney Davis  
SURF 2018
Social Sciences:

The SURF award permitted me to travel to Cap-Haitian, Haiti so that I could conduct ethnographic research first-hand for my senior honors thesis project. Without the SURF stipend none of my on-the-ground research would have been possible. This included almost twenty in-depth interviews and a 2-month participant observation position with an organization. The SURF award allowed for me to live and travel safely while in Haiti conducting research, and for that I could not be more grateful.

-Julia
Social Sciences fellows...

Pablo Paderes: Ethnic Studies, Summer 2018

Elizabeth McCullough: Development Studies, Summer 2018

The Disappeared
An Integrated Look at Black and Brown Persecution by the State

Cash Transfers: Theory and Practice in Neoliberal Aid

Eliza McCullough,
Development Studies
Mentor: Michael Watts, PhD
Science/Engineering:

The SURF award gave me the financial resources to spend an entire summer working extensively within my lab. This immersion allowed me to drive the pace of my research. Additionally, the mentoring from SURF STEM mentor Justin and the SURF Conference experience have been phenomenal in developing my confidence in research and ability to demonstrate and speak about my work.

-Neha
Kyler Natividad, Physics
“Atomically Resolved Measurement of Electromigration”
Mentor: Michael Crommie, Physics

Sara Weinstein, IB
“The Progression, prevalence, and transmission of Batrachochytrium dendrobatidis infection in Batrachoseps attenuatus salamanders”
Mentor: Cheryl Briggs, IB

Catherine Ngo, MCB
“Positional Cloning of the curly mutation in Xenopus tropicalis”
Mentor: Richard Harland, MCB

Cee Gould, Astrophysics
“HST / WFCE Imaging and Multi Wavelength Characterization of Edge-On Protoplanetary Disks”
Mentor: Gaspard Duchene
Personal transformation:

I am so grateful to be a SURF fellow. In fact, this is the first fellowship I have received. I want to pursue a Ph. D, and this fellowship makes me a more competitive candidate. But most importantly, I learned so much thanks to this program. I learned to write a proposal, to prepare human subjects protocol, to work with mentors, to analyze data, to present at the conference, and what it means to be a full-time researcher. I’ve come to see that research is actually really fun, and I am more confident in my decision in spending 5 years in grad-school.

-Hai
Personal transformation:

The financial support made it possible to do my research full time, but the less tangible benefit was the research community that the program as a whole offered me. To work with such talented and committed scholars was an honor and helped to foster my scholarly abilities.

Through the process I was able to develop my academic voice. After my SURF paper was published, I used it as a writing sample for my graduate school applications. I am happy to say that I was accepted to the school of my choice and will work with a professor who is top in my field.

I used my SURF paper to engage with organizations in my field who advocate for people with learning disabilities. As a result, I have been asked to present my research on the topic by various organizations as an educational tool.

- Sonia
Why SURF?

• Opportunity for in-depth exploration of a specialized topic you are passionate about
• Experience working with a faculty mentor
• Graduate School preparation
• Contribute to a body of knowledge
• Get to know other motivated students, professionals, and community members
• Challenge yourself and gain confidence
## 4 SURF Programs

### Eligibility overview

<table>
<thead>
<tr>
<th>Program</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>1) SURF Letters and Sciences (SURF L&amp;S)</strong></td>
<td>For Current Juniors&lt;br&gt;• Student-initiated research&lt;br&gt;• Develop your independent research project for a thesis</td>
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<tr>
<td><strong>2) SURF Rose Hills Experience</strong></td>
<td>(Current Sophomores and Juniors)&lt;br&gt;• Support faculty-initiated research under a UCB or UCSF, LBNL, CHORI researchers</td>
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<tr>
<td><strong>3) SURF Rose Hills Independent</strong></td>
<td>(Current Juniors &amp; Seniors (graduating May '19))&lt;br&gt;• Student-initiated research&lt;br&gt;• Develop your independent research project for a thesis / publication</td>
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<tr>
<td><strong>4) SURF Math Team</strong></td>
<td>• Group of four math majors propose a project under 1 or 2 math faculty mentors&lt;br&gt;• Students from any year are eligible including graduating seniors</td>
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Common Program Features

• Summer research stipend:
  • SURF/L&S: $4,500 stipend
  • SURF Math Team: $4,500 for each member
  • SURF/Rose Hills: between $5,000- $6,000

• Research Cluster meetings (Orientation in May during RRR, regular cluster meetings throughout summer)

• Significant coaching on your presentation / poster for conference

• Present your work at SURF Conference, August 22nd and 23rd, 2019

• We encourage you to seek publication in undergraduate journals both on-campus and national / international
SURF L&S Eligibility...

- College of Letters and Science
- Any major
- Graduating Fall 2019 or Spring 2020 (later grad dates *may* be possible if you are currently a junior and will complete honors thesis by Spring 2020)
- 3.0 or better Berkeley GPA
- Any citizenship status (international, AB540 OK)
- Research will lead to a senior thesis to be evaluated in a graded course taken in the 2019-20 academic year. This can include an independent study with your faculty mentor.
• four students all declared math majors
• team members can be from any year including seniors (spring ‘19)
• Any citizenship status (international, AB540 OK)
• faculty mentor will also get stipend ($2,500) which is split if two mentors
SURF Rose Hills Eligibility...

• Eligible majors in science, mathematics, or engineering (see next slide and our website surf.berkeley.edu)

• 3.0 or better Berkeley GPA

• U.S. Citizen

• Permanent address is in an eligible Southern Californian County (see next slide)

• A current sophomore, junior, or senior (senior = May ’19 grad)

• For SURF Rose Hills Independent: For juniors, research will lead to a senior thesis to be evaluated in a graded course; for seniors, research will lead to a draft publication or presentation
SURF Rose Hills

Eligible Majors

**Eligible majors:**

- **Life Sciences:** Integrative Biology, Microbial Biology, Molecular & Cell Biology, Genetics and Plant Biology, Molecular & Environmental Bio, Earth & Planetary, Nutritional Science (Toxicology, Dietetics, Physiology & Metabolism), Conservation & Resource, Environmental Science, Marine Science, Planetary Science

- **Physical Sciences:** Astrophysics, Mathematics, Applied Mathematics, Physics, Statistics, Chemical Biology, Chemistry, Geology, Geophysics,


**Eligible counties:**

- San Diego, Imperial, Orange, Riverside, Santa Barbara, Ventura, Los Angeles, San Bernardino

*Note that some majors are eligible for both SURF/L&S and SURF/Rose Hills*
SURF Requirements

A. Spring and Summer

• Projects with human subjects: submit human subjects protocol to CPHS by March 18 (vulnerable human subjects or not high risk). Your faculty sponsor must also take the CITI course or be “grandfathered” in.
• Attend orientation during RRR week in May (there will be three options to choose from)
• Devote 8 weeks full-time to your SURF research (no summer school classes longer than six weeks, no internships or employment during that time)
• Attend 4+ summer cluster meetings (can be via Zoom)
• Be present in Berkeley at least one week before the conference to practice your presentation (starting August 12).
• Participate in at least 2 conference practice/poster feedback sessions
• Present your research August 22nd and 23rd, 2019 (during GBO).
B. Fall ‘19 and Spring ’20

• Submit form with thank you note to the donors and program evaluation after conference

• If you are doing a thesis (SURF L&S and Rose Hills Independent) meet with your faculty member in the first weeks of fall term.

• SURF L&S and SURF Rose Hills Independent for juniors: enroll in a course/courses during the 2019-2020 academic year that offer graded credit for your SURF project/senior thesis. Submit your thesis upon completion. (Rose Hills Independent Seniors, Rose Hills Experience, and Math Team fellows are not required to enroll in a course following SURF)

• SURF Rose Hills Independent for graduating seniors: Submit publication or publication draft by May 2020, at the latest.
Applying: What you need to succeed

A 3-5 page research proposal that is well written and well planned

- Strong backing from a faculty member, including written commitment to guiding your research via a letter of evaluation
- A budget is not required but a brief spending plan may be helpful in cases of large expenses
Good Research Proposals
(for independent research)

1. Statement of purpose: the big picture
   - what you will do
     - why it is important
     - how you will do it

2. Background and justification
   - What knowledge is established in the field
     already that you are intending to contribute to

3. A project plan
   - concrete information such as research methods,
     timeline, preparation, personal experience and
     qualifications

See inks for research proposal workshops, proposal guidance documents, and office hour sign-ups with the graduate mentors on the SURF “resources page" and research.Berkeley.edu
Statement of Research Interest
(SURF/Rose Hills Experience)

Elements of a good statement
1. Student interest in project
   - Why choose this topic?
   - Why is this research important?

2. Project tasks and goals
   - What do you plan to accomplish
   - How will you complete these goals
   - Timeline of when you will complete them

3. Preparedness
   - What qualifications do you bring to this project?
   - What prior experiences will help you succeed?

Work closely with your research mentors on the proposal
Other Application Materials

- Scanned Transcripts for PDF upload
- Recommendation letter from your faculty mentor (you provide them google form link)
- Does your research involve human subjects? (If you are conducting any kind of interview, it likely does)
- Human Subject Protocol must be turned in to CPHS by March 18, 2019
Faculty Support

- Strategies for finding a mentor
- Getting a great letter of evaluation
  - not just a “sign-off”
  - needs to be very familiar with your project
- Requirements for mentors
  - senate faculty or lecturers appointed through Fall 2019
  - email and summer guidance
Support With Your Application

• Attend application support workshops (Durant Hall Room 9)

• See the ”events” tab on research.Berkeley.edu for all the upcoming workshops on writing proposals, connecting with mentors and more including info on the Haas Scholars Programs which you might be eligible for.
SURF 2019 Deadline:
February 21, 2019

Questions?

surf@Berkeley.edu

Make appoint with grad advisors starting after January 21st, 2019