

EH MATTERS

Environmental Health MethodologicAl, Training, and Teaching
EnterpRiSe

2 year Undergraduate Research Internship Program

Program Introduction

EH MATTERS offers USC undergraduate students from under-represented groups a paid, two-year, three-semester per year internship (Summer/Fall/Spring) to build capacity of diverse students to engage in environmental health sciences and community health disparities research. Rising sophomores and juniors are encouraged to apply.

This community-engaged environmental health research program will expand students' understanding of fundamental concepts in environmental health, exposure, susceptibility, risk, and health disparities. This formal training will provide a basis for a firm academic understanding of community environmental health disparity issues and firsthand experiences that look at environmental health through the lens of environmental justice.

Program Objectives

- Students will understand how urban health disparities and environmental exposures intersect and interact in communities, and how to leverage action-oriented research
- Students will develop the necessary skills to successfully engage in community-driven environmental health research to address environmental health disparities;
- Students will build skills and confidence to pursue graduate education and careers in environmental health sciences.

Internship and Mentoring

Each EH MATTERS participant will be paired with a faculty research mentor with whom they will work as a paid intern during their two-year program.

Faculty mentors for the 2021 Program Cohort include:

[Ed Avol](#), [Tracy Bastain](#), [Erika Garcia](#), [Rima Habre](#), [Megan Herting](#), and [Jill Johnston](#)

(Click on their names to go to their EH MATTERS faculty profile page).

Program Highlights

- Students will receive an hourly wage for internship hours (10 hours/week Fall and Spring, 36 hours a week for Summer)
- Highly competitive research positions in environmental health research,
- Faculty mentors in the USC Department of Preventive Medicine.
- Students will have the opportunity to be mentored by peers (graduate and post-graduate students.)
- **Community-engaged research skill-building:**
 - Through field trips, lectures, and in-person visits, students will gain exposure to community-based environmental justice organizations, public officials, and policy makers throughout Southern California
- **Academic enrichment:** students will have access to course content in related course in undergrad and graduate programs including Health Promotion and Preventive Medicine to increase the ability to successfully compete for acceptance into a doctoral program.
- **Research skill building workshops focusing on:**
 - Developing and Designing a Research Question
 - Understanding Health Disparities
 - Epidemiological Study Designs and Analysis
 - Approaches in Measuring Exposures, Health and Communities

Program Eligibility

The program aims to increase diversity of students in environmental health and prioritizes the following students:

1. All Native (American Indian or Alaskan Native), African-American, Hispanic, Hawaiian Native or Pacific Islander;
2. Students in at least one of the following categories (including international students and permanent residents);
 - a. A language other than English the primary language spoken at home
 - b. First-Generation College
 - c. Identifying as LGBTQ
 - d. Identifying as multiracial
 - f. Immigrant students
3. Must have completed at least one year of undergraduate study to apply;
4. Minimum overall GPA of 3.0 or greater;
5. Students who qualify for Federal Work Study funding (students who do not qualify are also considered).

Selection will be based on:

- Student's academic achievements
- Letters of recommendation
- Essay and completed application

EH Matters Program Application Information

<https://envhealthcenters.usc.edu/ehmatters/ehmatters-application>

Key elements of the application that you can prepare before filling out the online application form include:

Cumulative/Overall GPA for college coursework

How did you hear about EH Matters? (short answer question)

Short answer essays

The following five prompts should be answered in 150 words or less. Each answer will be submitted in a text field on the application.

1. Tell us why you are interested in being a part of EH MATTERS two-year environmental health internship program:
2. What relevant experiences: coursework, internships, jobs have you had that support your interest in this program?
3. What do you bring as a student to the EH MATTERS cohort?
4. How will participation in this program make a difference – for you, for your community, for environmental health?
5. How can this internship support your future goals?

Unofficial college transcripts

As part of your application, you will need to upload a copy of an unofficial transcript. An unofficial transcript will be issued by your university or college registrar's office upon request but may also be accessed through a student portal. An unofficial transcript may also be a physical, official copy that you have opened and uploaded. Avoid uploading degree progress reports, grade audits, or similar printouts; these do not count as unofficial transcripts. Acceptable unofficial transcripts from U.S. institutions must:

- Have the word "transcript" on the document
- Have the name of your institution attended or are attending
- Include the student's name, program of study, and major of study
- Include a term-by-term breakdown of each completed course with its corresponding units and grade
- Be clearly legible

Two letters of recommendation

One letter from USC or other college faculty; and one letter from a former work or internship supervisor. Students must send the link to the recommendation portal to their people of reference and indicate who they have sent the link to in the online application.

Letters must be submitted by the person of reference through the [recommendation portal](#).

Internship descriptions by faculty mentor

Below are brief descriptions of the internships. Click on faculty member names to view their full profile including research interests and publications.

In the online application you will be asked to indicate your top three internship preferences.

Ed Avol: This internship position is geared towards those with an interest in learning more about making a change in one's community through developing working partnerships with neighborhood residents and policymakers. Using the community of San Pedro as a prototype, a case study of the challenges, underlying issues, identifiable solutions, and realistic progress made will be the basis for developing an actionable plan in the student's community. Interviewing and learning about what has worked – and what has not worked – can serve as a road map for planning a viable path forward– and possibly avoiding some of the likely pitfalls – that face communities beset by substantive exposures to contaminants of potential health consequence.

Tracy Bastain: Interns with the [MADRES study](#) will participate in a variety of research capacities. In addition to assisting the investigative team with literature reviews and presentations, opportunities exist for assisting with data collection with research participants, assisting study staff with participant visits and sample collection, as well as supporting the research activities through preparation of materials and helping with cohort retention events.

Erika Garcia: Interns will gain training and mentoring in key areas such as science literacy, methods behind data analysis, preparation and communication of research, and principles underlying the conduct of Public Health research. Interns will work with Prof. Erika Garcia to develop and conduct a research project suited the student's interests; for example, a project to identify patterns of air pollution exposure in Southern California children.

Rima Habre: Interns will gain a deeper understanding of exposure sciences in the field of environmental health, with practical data collection, analysis and research experiences. Topics and projects range from designing and executing a sampling protocol or campaign using sensors, wearables, personal monitors or other instruments, performing lab-based analyses, collecting geospatial data using geolocation (GPS) tracking and Geographic Information Systems (GIS), and visualizing, analyzing and understanding patterns in multidimensional data. The ultimate goal is to develop skills in measuring and modeling personal exposures to air pollution primarily and other physical or chemical exposures in epidemiological studies.

Megan Herting: Interns receive hands-on experience with important facets of conducting human research to assess brain and behavior development in children and adolescents. Topics include IRB human subjects training, discussions regarding ethics in conducting research with children and incidental MRI findings, learning about the collection and processing of neuroimaging data, and an expanded knowledge in environmental neuroscience, including how air pollution impacts the developing brain during childhood and adolescence.

Jill Johnston: Interns will support community-driven research for environmental justice, will examine the relationship between industrial sources of pollution and community health, and will engage communities in environmental health popular education workshops.

Program Directors: Ed Avol and Jill Johnston

Program Manager: Wendy Gutschow

For more information contact: Wendy Gutschow, wgutsch@usc.edu



Keck School of Medicine of USC
Division of Environmental Health