

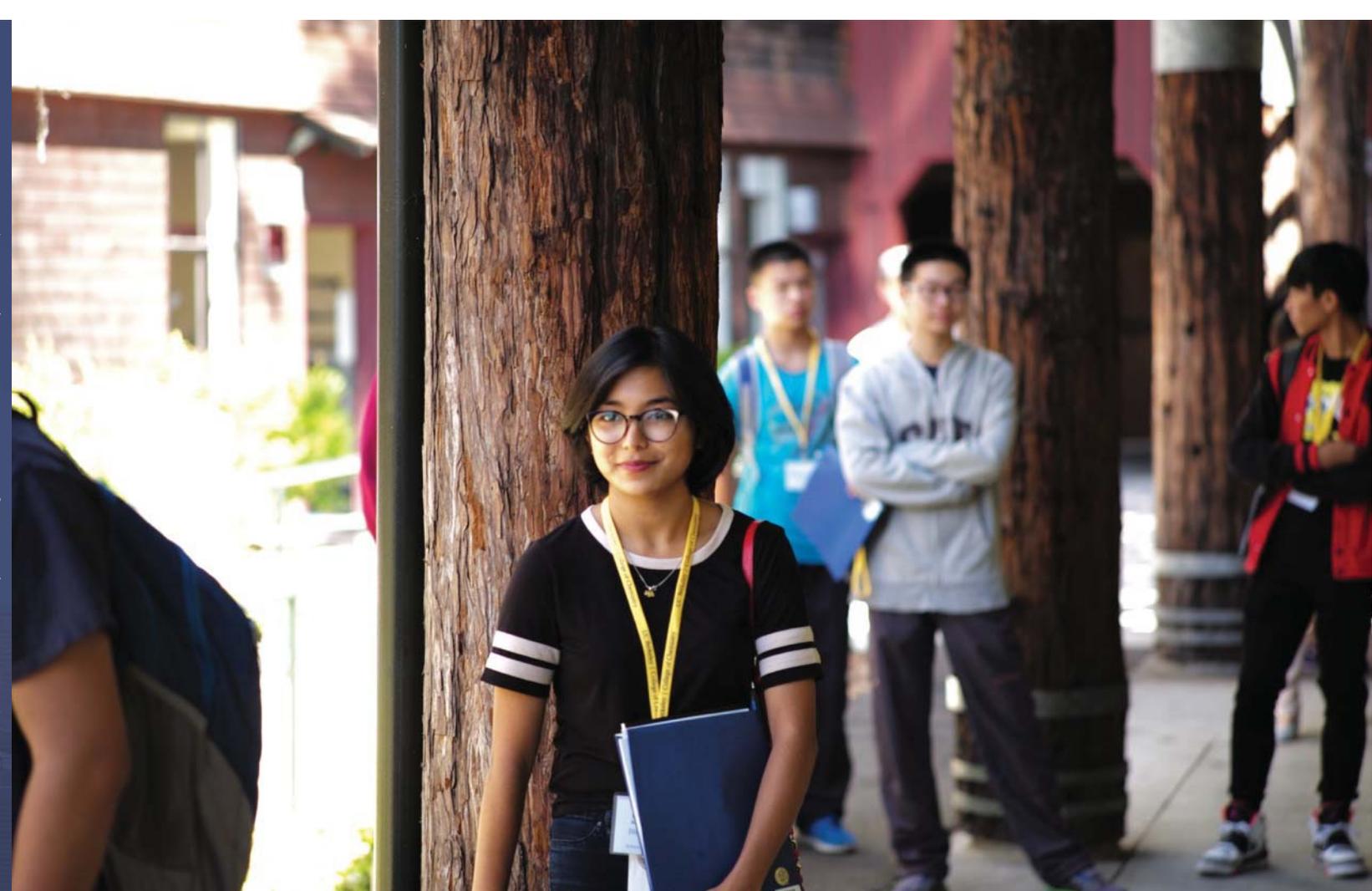


Summer Youth Intensive  
Program Phase II:  
Remote Coaching  
& 4-week  
Laboratory  
Internship



## About the Program

Phase II is comprised of remote coaching by an assigned laboratory beginning October 1, 2016 and a 4-week onsite internship with the laboratory from June 25-July 22, 2017. During remote coaching, the laboratory you are matched with will correspond with you at least 1-2 times per month to assign you literature reading to help you become familiar with the laboratory's research, answer your questions about the readings and research, guide you towards additional resources, and mentally prepare you to be in the laboratory. During the onsite internship, you will shadow your assigned graduate student researcher to assist with data analysis, laboratory procedures that are non-hazardous, attend seminars, and attend group meetings.





The Summer Youth Intensive Program distinguishes itself from other programs in the following aspects:

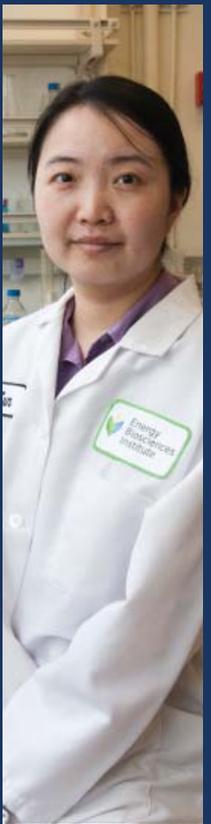
**Brought to you by the very BEST chemistry program in the world.** Unlike some other summer camps that rent prestigious college facilities to utilize their brand names, SYIP is administered and delivered by the College of Chemistry at UC Berkeley.

**Training in ACTION.** Qualified students will have an opportunity to participate, observe, and experience the workings of world-class research laboratories through onsite internships.

**Provides invaluable insight into school life at UC Berkeley.** Students will have opportunities to mingle with current UC Berkeley students to solicit their advice on the college application process and to get a better sense of college life.

**Continuous interaction with Berkeley professors and students.** Unlike other camps, which typically last a few weeks, phase II of this program will span a little less than a year to provide ample opportunities for students to learn from world class scientists. The remote interactions will better inform UC Berkeley professors and mentors to write qualified recommendation letters.

## Participating Faculty



### Douglas Clark

Biochemical engineering and biocatalysis

Professor Clark's research is in the field of biochemical engineering, with particular emphasis on enzyme technology, biomaterials, and bioenergy.

### Matthew Francis

Organic, Bioorganic, and Materials Chemistry

Research in the Francis group is focused on the development of new synthetic methods for the construction of nanoscale materials.

### Ali Mesbah

Process Systems and Control

Professor Mesbah's research lies at the intersection of control theory, applied mathematics, and process systems engineering.

### Jeffrey A. Reimer

Materials chemistry, applied spectroscopy, alternative energy, nuclear spintronics

Researches materials chemistry, applied spectroscopy, alternative energy, including a diverse array of contributions in expanding and applying spectroscopy for materials research.

### Richmond Sarpong

Organic and Organometallic Chemistry

Research lies in the total synthesis of natural products with a keen eye toward the development of new synthetic methods and strategies.

### Omar Yaghi

Reticular Chemistry

Developing the science of building chemical structures from molecular building blocks; a field we refer to as Reticular Chemistry.

### Wenjun Zhang

Biomolecular Engineering and Bioenergy

Research includes genome mining for new bioactive small molecule discovery, pathway enzyme identification and characterization, as well as pathway designs toward combinatorial natural product biosynthesis and biofuel production.

# Remote Coaching and Laboratory Internship

9-Month Remote Coaching:  
October 2016 through June 2017

Selected students will be matched to a laboratory that fits their interests as well as the laboratory's needs and preferences based upon the student's demonstrated qualifications and maturity. Each student will be paired with a mentor from the laboratory. The mentor will communicate with the student once or twice per month remotely through email and/or live chat. The student and mentor will work together to determine the best method and frequency for communicating. The objective of the remote coaching will be to provide the student with continuous learning, and an understanding and familiarity with the laboratory's research and more advanced scientific concepts in preparation for the 4-week Internship.

4-Week Internship:  
June 25 to July 22, 2017

During the 4-week internship in the assigned faculty research group, the student will attend group meetings, research seminars, assist with data analysis and simple, non-hazardous procedures under the supervision of his/her mentor. The student will get an in-depth view into concept development, methods design, decision making, scientific processes, and inner workings of world-renown laboratories that develop advanced technologies and solutions to society's issues.

Students who successfully complete the Remote Coaching and Internship will be provided reference letters from the dean of the College as well as from the mentors.





We provide real college-life experience to prepare passionate students with in-laboratory skills using fun and interactive methods.

Image: Keegan Houser

## Eligibility

Rising high school students (grades 9-12) only. SYIP is designed for the most accomplished high school students who are passionate about learning and doing scientific research in chemistry, biochemical engineering, material science, or related fields, and who are focused on maximizing their future success in college.

## Course Details

Visit our website at <http://chemistry.berkeley.edu/syip> for more information.

Click *here* to access our application form. There are different options to sign up for Phase II of SYIP. Each option comes with a different set of tuition and fees. Breakout of these fees may be found at <http://chemistry.berkeley.edu/sites/default/files/syip-app-english-phase-2.pdf>



## Contact Us

For questions about Summer Youth Intensive Program Phase II, please contact us:

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