



BERKELEY



ChemSTAR

UC Berkeley | College of Chemistry



INTRODUCTION

The College of Chemistry's **Guiding Outstanding Learners to Discover® (GOLD)** programs are designed to empower students in high school and other undergraduate institutions to further their understanding of the chemical sciences and engineering. The programs provide structured curricula that incorporate seminars and lectures given by world-renowned faculty and scientific leaders in their fields. In some cases, the programs include hands-on experiences in the laboratory and/or classroom. These offerings are integrated with other strategies such as group problem solving activities, presentations, and interactive discussions that build stronger communication, interpersonal, and analytical skills amongst participants.

The objective of the **GOLD** programs is to facilitate the development of each student's intellectual and inquiry skills to help him/her achieve his/her fullest potential. Every **GOLD** program is sponsored and taught by UC Berkeley faculty, graduate students, and scholars, and is held onsite at the Berkeley campus.

CHEMSTAR

ChemSTAR is designed for the undergraduate scholar who thirsts for more hands-on laboratory experience to become better prepared for admittance to graduate school or to work in industry upon graduation. **ChemSTAR** is a non-credit bearing, two phase program during the summers that focuses on bioanalytical chemistry and chemical biology methods.



TWO PHASE SUMMER PROGRAM

1

PHASE I accepts up to 56 students and consists of structured laboratory experiments and techniques in an undergraduate laboratory for 3 weeks.

Students will learn to use modern technical methods or instruments, mine and analyze data, and perform research techniques that will augment and strengthen research skills that are desired in industry or graduate school applications. Students who are observed to be highly skilled, quick learners, excellent communicators, and demonstrate maturity and curiosity will be asked to apply to Phase II of the program.

PHASE II of **ChemSTAR** accepts up to 15 students who would each be placed into a faculty laboratory for 5-weeks the following summer to conduct mentored laboratory research to further hone their laboratory skills and focus on real-time research on a specific topic. The techniques each student will learn will depend on the assigned laboratory's research aims. However, every student will learn how to understand concept development, methods design, and decision making by the end of the program. Placement in Phase II will greatly increase the likelihood of getting published on a joint paper.

Both Phases will be augmented by research seminars, faculty presentations, graduate school information sessions and panels, tours of the Lawrence Berkeley National Laboratory and UC Berkeley campus, and social activities in the San Francisco Bay Area.

ChemSTAR teaches undergraduate scholars the theory and application of research methodology, to work independently, think critically, and communicate more effectively.

2





ELIGIBILITY AND APPLICATION PROCESS

ChemSTAR accepts applications from undergraduate students attending a nationally accredited university or college studying a chemical, physical, or related science. Students will need to have taken general, inorganic, and organic chemistry to take full advantage of the curriculum. To apply to **PHASE I**, please submit the following.

1

- 500 word statement of interest that includes why you are interested in **ChemSTAR**, what you hope to gain from the program, and what makes you the best candidate.
- A minimum 3.0 GPA on a 4.0 scale
- One letter of reference
- Copy of transcript
- A minimum 79 TOEFL or 6.5 IELTS for international students

| Applications are now being accepted until May 31, 2020 for PHASE I

Students who are invited to apply to **ChemSTAR PHASE II** will need to submit a 500-word statement that describes why they are interested in Phase II, what they hope to gain from the program, and a challenging situation they had to overcome and how they did so. Students would apply at the end of Phase I to be evaluated and interviewed by the faculty director and graduate student instructors. Students will learn of their acceptance decision by the end of September or early October.

Phase II candidates must demonstrate strong verbal, written and English comprehension proficiency; excellent judgment and common sense; consistent follow-through on tasks; an understanding of when to ask questions and escalate issues; an ability to learn and grasp concepts quickly; self-motivation; and strong analytical skills.

2

TUITION AND FEES

PHASE I is \$8,500 and **PHASE II** is \$16,500. These costs include room and board, all instruction, laboratory materials and supplies, instructional materials, peer advisors, chaperoned excursions, and airport transfer. The cost of traveling to and from UC Berkeley for the program and any personal expenses during the program are not covered and are the responsibility of the student.

| The dates of PHASE I in 2020 are July 12-August 1, 2020





CONTACT US

For additional information about

ChemSTAR

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