



Cal Poly Pomona - Engineering Co-Op Opportunity



Universities Space Research Association (USRA) Stratospheric Observatory for Infrared Astronomy (SOFIA) NASA project Maintenance and Engineering Team



Company Name: USRA	Position Title: Engineering Co-Op Intern
Position Type: Part-Time, Year-Round	Salary Type: \$25 - \$30/hour depending on experience
Work Period: Starting May 2022	No. of Positions: 5
Requisition #: To be determined	Deadline to Apply: Friday, 5/2/2022, by 5pm or until enough qualified applications received.

Program Enrollment

Before applying for this position, student applicants must complete once the online Cal Poly Pomona Cooperative Education Program interest form if they have not yet done so in the past.

Application Procedure

Current sophomore or junior status with approximately two years remaining before graduation is required. To apply and be considered for this position, students **MUST** complete/submit all 3 (three) items below:

1. Cover letter
2. Resume
3. Current unofficial transcripts including related courses, grades, and estimated graduation date.

Please email to co-op@cpp.edu and murali.k.kandlagunta@nasa.gov the required 3 (three) items above.

Position Description

USRA, a prime contractor for NASA for SOFIA project, is seeking five (5) Co-Op students to support both domestic and international SOFIA operations. Co-Op students will be supporting Maintenance and Engineering (MandE) group with the Science Instruments (SI) operations, maintenance and troubleshooting. Students from electrical/mechanical/optical engineering majors are encouraged to apply. This position will require a time commitment of approximately 20 hours per week, Monday through Sunday, in spring semester. For the summer months, 40 hours/week availability is required throughout the week. Travel is required for this position. Students are expected to travel to international location such as Christchurch, New Zealand to support SOFIA operations in summer for approximately 60 days. This position entails early, first and second shifts, students are expected to support any of these shifts, including weekends, based on the manager's discretion.

USA Citizenship and a valid passport are required.

Duties

The selected Co-Op students will assist USRA MandE engineers and technicians with SOFIA science instrument operations. This will involve working in office, laboratory, and in the aircraft both at Palmdale, CA and Christchurch,

NZ. Majority of the assignments will involve hands-on work, cryogen transfers, pre/day-of/post flight checks, SI lab operations, critical lift operations, lab and office set up operations at Christchurch, New Zealand. Electrical or Mechanical CAD tasks may be assigned to the students. Additional tasks include support in troubleshooting of SIs, Mirror Coating Facility (MCF) support, equipment maintenance, operations procedure updates, packing, shipping, assisting with technical reporting and literature searches.

Students will be required to work with cryogens such as Liquid Helium (4K) and Liquid Nitrogen (77K). Students are expected to diligently follow learned safety measures associated with cryogens. Also, students will work with Helium, Nitrogen and Argon gas cylinders. Training will be provided for safe operations with cryogens and gases. Students will need to work in cold and hot weather conditions. Students will be required to take mandatory NASA trainings, regulations or medical requirements associated with these tasks.

The student must be capable of performing all duties in a technical / scientific setting including offices, laboratories, shops, and aircraft maintenance facilities as well as on the aircraft / observatory, both while on the ground and on aircraft.

The activities in the office environment include using standard office equipment such as computers, phones, photocopiers, etc. Extensive online usage. Keyboarding for large time spans each day will be a significant part of this position. The noise level in the work office environment is typically mild.

A significant portion of the work will occur either on an airplane or in a lab inside an aircraft hangar. While performing the duties of this job in the operations environment, the employee may be exposed to fumes or airborne particles, moving equipment, vehicles and mechanical parts. The environment on the aircraft during flight operations may become noisy and tiring.

Work on either day or night shift and weekends may be scheduled for this position up to 50% of the time. While performing the duties of this job, the employee is frequently required to stand; walk; sit, use hands. The employee may need to lift and / or move up to 50 pounds.

Required Skills and/or Coursework

Applicants must be currently enrolled in an accredited four-year degree program in Electrical, Mechanical, Optical Engineering, or a closely related field. Physics and Astronomy majors are also considered. A minimum overall GPA of 3.00 or better in relevant major coursework is required. Graduate students are encouraged to apply as well.

Desirable Skills and Abilities

Basic knowledge of engineering design and analysis. Proficient laboratory skills are desired. It is beneficial for the student to have one year of work experience (or coursework experience) in the engineering design and analysis. Proficient computing and writing skills are desirable with a working knowledge of Microsoft Office applications (Excel, Word, Access, and PowerPoint).

Work Location

Palmdale, CA, USA and Christchurch, New Zealand.