

Direct Link: https://www.AcademicKeys.com/r?job=257978

Downloaded On: Jun. 7, 2025 1:49pm Posted Jun. 6, 2025, set to expire Jul. 1, 2025

Job Title Instructional Support (9610C) Job 78733 - Physics

Department

Department Physics

Institution University of California, Berkeley

Berkeley, California

Date Posted Jun. 6, 2025

Application Deadline Open until filled

Position Start Date Available immediately

Job Categories Professional Staff

Academic Field(s) Physics - General

Mathematics/Applied Mathematics

Sciences - General

Apply Online Here https://apptrkr.com/6277464

Apply By Email

Job Description

Image not found or type unknown

Instructional Support (9610C) Job 78733 - Physics Department

About Berkeley

At the University of California, Berkeley, we are dedicated to fostering a community where everyone feels welcome and can thrive. Our culture of openness, freedom and belonging make it a special place for students, faculty and staff.



Direct Link: https://www.AcademicKeys.com/r?job=257978
Downloaded On: Jun. 7, 2025 1:49pm
Posted Jun. 6, 2025, set to expire Jul. 1, 2025

As a world-leading institution, Berkeley is known for its academic and research excellence, public mission, diverse student body, and commitment to equity and social justice. Since our founding in 1868, we have driven innovation, creating global intellectual, economic and social value.

We are looking for applicants who reflect California's diversity and want to be part of an inclusive, equity-focused community that views education as a matter of social justice. Please consider whether your values align with our Guiding Values and Principles, Principles of Community, and Strategic Plan.

At UC Berkeley, we believe that learning is a fundamental part of working, and provide space for supportive colleague communities via numerous employee resource groups (staff organizations). Our goal is for everyone on the Berkeley campus to feel supported and equipped to realize their full potential. We actively support this by providing all of our full-time staff employees with at least 80 hours (10 days) of paid time per year to engage in professional development activities. Find out more about how you can grow your career at UC Berkeley.

Departmental Overview

Physics is the largest department in the L&S Division of Mathematical and Physical Sciences. It is ranked as one of the top physics departments in the world, with excellence in research, teaching, and service to the community all highly valued. The department has 80 ladder and active emeriti faculty, 60 career and casual staff, and 300 lecturers, teaching assistants, readers, research personnel, postdocs, fellowship recipients, and visiting scholars. It enrolls 250 graduate students, 250 undergraduate majors, and over 7,000 students in its courses, many with laboratory sections. Its faculty fully participates in teaching and administration and conducts world-class research in campus, local, national, and international laboratories and sites; research activities require active financial arrangements with organizations such as Lawrence Berkeley National Lab. Physics manages 3 distinct campus buildings in its facilities complex with 240,000 assignable square feet, and it also houses and provides services to several research centers, the Physics Library, and multiple research Laboratories with varying physical environments.

The Instructional Support provides essential support for seven lower-division undergraduate laboratory courses, which serve 120 lab sections of as many as 48 students per section each week. This position involves supporting lecture demonstrations and lower-division labs, which may include routine and nonroutine demonstrations and/or laboratory operations, development and performance of technical/safety protocol and procedures, designs of demonstrations and lab experiments, literature studies, reviewing scientific papers, developing and overseeing demonstration and laboratory schedules, scheduling and training support staff and hiring/training student assistants. The Instructional Support position develops and modifies laboratory experiments, designs and maintains equipment, supervises and assists in the



Direct Link: https://www.AcademicKeys.com/r?job=257978
Downloaded On: Jun. 7, 2025 1:49pm
Posted Jun. 6, 2025, set to expire Jul. 1, 2025

setup of demos/labs, demonstrates exercises to instructors, and develops web sites for use by students, instructors and staff. Support is also provided for departmental special events, production of laboratory manuals, and maintenance of computer software and hardware for teaching labs. The position will manage expenses associated with lecture demonstrations and lower-division labs.

The Instructional Support is a lead partner on the Instructional Support Team for the Department of Physics, reporting up to the Director of Instructional Support, and working closely with two Staff Research Associate 3 level employees and collaborating with an R&D Engineer 4 which oversees upper division labs. The SRA 4 provides hands on support to instructors to set up demonstrations in their classes, and works directly with students involved in capstone lab projects. The SRA 4 serves as PI/Contact for lower-division Lab Safety aspects and contributes to the overall strategic planning of the Department's instructional labs.

Application Review Date

The First Review Date for this job is: 6/17/25 - Open until filled

Responsibilities

45% Demo/Laboratory Preparation and Support:

- Develop a demo support schedule based on campus scheduling. Instruct professors and lecturers on demo availability, request procedures and policies. Work with instructors on special requests that might be capable with equipment available. Assist with audio and visual needs and classroom technology.
- In consultation with faculty, set the schedule of laboratory experiments and prepare various laboratory manuals for publication, including editing and design, computer graphics and equations. Considerations include space, emphasis of courses, sharing of resources between courses, and sequence of instruction. Coordinate the distribution of the lab manuals with instructors and head GSIs through bCourses so that professors and students receive the materials in a timely fashion.
- In consultation with Student Services, develop a room use schedule to ensure all discussion/lab sections can fit in rooms appropriate with their assigned classes. Also to manage use of department rooms for other purposes such as UC-Extension or Summer programs.
- Supervise demo/lab experiment preparation; check stock of needed equipment, components, and supplies; plan logistics and setup placement.
- Supervise demo/lab setups, assist in setting up, and inspect finished setups prior to instructor/student use. Organize demo/lab clean-ups between classes.



Direct Link: https://www.AcademicKeys.com/r?job=257978
Downloaded On: Jun. 7, 2025 1:49pm
Posted Jun. 6, 2025, set to expire Jul. 1, 2025

- Test and calibrate equipment prior to and after instructor/student usage. Diagnose equipment malfunctions and repair or arrange for repair/replacement.
- Maintain and upgrade computer hardware and software for lecture demonstrations and instructional labs.
- Organize spaces for equipment storage, assembly, and repair to promote efficient and orderly function.

20% Teaching Assistance:

- Assist in the training and briefing of Instructors/GSIs prior to each lecture or lab exercise.
 Demonstrate appropriate techniques and suggest ways to anticipate and prevent problems with demonstrations/experiments. Discuss relevant Physics principles that are (or can be) demonstrated with the equipment.
- Works directly with students involved in capstone lab projects, to consider viability, practicality, and success of proposed projects given constraints of time, equipment, etc.
- Advise (especially for new) instructors and head GSIs on demos & lab policies, and effective strategies for coordinating a group of 6-18 GSIs.
- During laboratory periods, support GSIs by answering questions, replenishing supplies, and troubleshooting problems with lab equipment and computers.
- Assess effectiveness of demonstrations/experiments by observing labs and performing experiments. Evaluate manual pertinence and validity.
- Provide occasional back-up assistance for instructional support staff responsible for upperdivision laboratories, lower-division laboratories, and lecture demonstrations.

15% Innovation and Development:

- Develop and modify lecture demonstrations and lower division laboratory experiments and curricula (in conjunction with academic coordinator), including researching, designing, and testing new apparatus. Evaluate and recommend new techniques and equipment to faculty. Determine needs through direct observation, analysis, student/instructor interviews and written student evaluations, and in response to faculty requests and suggestions. Consider safety, economy, current standards, changing technologies, current educational philosophies, educational effectiveness relative to target audience, and durability.
- Assist faculty and supervisor with preparation of proposals for intramural and extramural funding to support curricular development, innovative teaching programs, and major equipment purchases.
- Respond to instructor requests/requirements/recommendations for new or modified demonstrations and/or lab experiments for one-time purposes or implementation into existing



Direct Link: https://www.AcademicKeys.com/r?job=257978
Downloaded On: Jun. 7, 2025 1:49pm
Posted Jun. 6, 2025, set to expire Jul. 1, 2025

content. Develop, maintain, and update a lecture demonstration request website, including description of services and resources available to instructors, procedures for obtaining services. Also maintain a shared drive of laboratory resources including instructional videos, simulations, lab write-ups, and instructor notes for GSI use.

15% Supervisory and Administrative:

- Responsible for the scheduling of assignments for lecture demo/lab support staff (SRA3s) to ensure all demos and labs are supported each semester.
- Responsible for hiring, training, team building, organizing and directing staff of up to three parttime Student Laboratory Assistant II's. Meet with staff to convey department, University and outside needs and assign specific and general responsibilities.
- Prepare semester lecture demo schedules; maintain current and past demo requests, demo improvements and suggestions.
- Prepare weekly and semester laboratory schedules; maintain current and past lab write-ups of experiments, experiment improvements and suggestions.
- Participate in planning and projection for equipment needs, budget, space allocation, staffing and other resources.
- Serve as PI/Lab Contact for Radiation, Lasers, Compressed gases, Cryogens, Chemical inventory and waste disposal, Lab inspections and Lab Rosters. Maintain SOPs and ensure all staff are properly trained in security measures. Oversee lecture demo and lab equipment inventory and manage expenses associated with maintenance, repair, replacement, and updating equipment.

5% Education Materials and Outreach

- Participate in outreach programs and events such as Cal Day and student tours/lectures.
- Coordinate with UC-Extension and summer programs regarding use of facilities and/or equipment.
- Create new educational materials and outreach materials based on best practices and needs of instructors, responsive to changes in physics and educational methods.
- Consult publications and colleagues at other institutions. Research, design, and fabricate or purchase new apparatus. Design considerations include safety, economy, and educational effectiveness.

Required Qualifications

• Working knowledge of undergraduate-level physics, mathematics, chemistry, mechanics,



Direct Link: https://www.AcademicKeys.com/r?job=257978
Downloaded On: Jun. 7, 2025 1:49pm
Posted Jun. 6, 2025, set to expire Jul. 1, 2025

computers, and electronics.

- Technical knowledge of electrical equipment, mechanical apparatus, vacuum and magnetic
 equipment, digital counters, logic devices, and radiation. Computer skills should include hardware
 and software installation and maintenance, and ability to use software for publishing, graphics,
 web page maintenance, and data acquisition and analysis.
- Knowledge of current literature and trends in instructional content and methods at comparable institutions.
- Excellent interpersonal and communications skills, strong writing skills.
- Ability to manage multiple responsibilities under the pressure of deadlines.
- Familiarity with EH&S regulations, radiation, lasers, cryogens, chemical management, and waste disposal regulations and procedures.
- Skills in judgements and independent thinking.
- Ability to communicate information in small and large group settings.
- Problem solving and organizational skills.
- Multicultural competencies, knowledge and experience working and interacting with diverse groups of staff, faculty, and student populations.
- Proven ability to organize unit work functions in an efficient and effective manner.

Preferred Qualifications

- Graduate training in physics, engineering, or other physical science.
- Lecture demonstration experience in physics.
- Laboratory teaching experience in physics.

Salary & Benefits

For information on the comprehensive benefits package offered by the University, please visit the University of California's Compensation & Benefits website.

Under California law, the University of California, Berkeley is required to provide a reasonable estimate of the compensation range for this role and should not offer a salary outside of the range posted in this job announcement. This range takes into account the wide range of factors that are considered in making compensation decisions including but not limited to experience, skills, knowledge, abilities, education, licensure and certifications, analysis of internal equity, and other business and organizational needs. It is not typical for an individual to be offered a salary at or near the top of the range for a position. Salary offers are determined based on final candidate qualifications and experience.



Direct Link: https://www.AcademicKeys.com/r?job=257978
Downloaded On: Jun. 7, 2025 1:49pm
Posted Jun. 6, 2025, set to expire Jul. 1, 2025

The budgeted salary or hourly range that the University reasonably expects to pay for this position is \$92,693.72 - \$102,271.57.

Conviction History Background

This is a designated position requiring fingerprinting and a background check due to the nature of the job responsibilities. Berkeley does hire people with conviction histories and reviews information received in the context of the job responsibilities. The University reserves the right to make employment contingent upon successful completion of the background check.

Misconduct Disclosure

As a condition of employment, the final candidate who accepts a conditional offer of employment will be required to disclose if they have been subject to any final administrative or judicial decisions within the last seven years determining that they committed any misconduct; received notice of any allegations or are currently the subject of any administrative or disciplinary proceedings involving misconduct; have left a position after receiving notice of allegations or while under investigation in an administrative or disciplinary proceeding involving misconduct; or have filed an appeal of a finding of misconduct with a previous employer.

"Misconduct" means any violation of the policies or laws governing conduct at the applicant's previous place of employment, including, but not limited to, violations of policies or laws prohibiting sexual harassment, sexual assault, or other forms of harassment, discrimination, dishonesty, or unethical conduct, as defined by the employer. For reference, below are UC's policies addressing some forms of misconduct:

UC Sexual Violence and Sexual Harassment Policy
UC Anti-Discrimination Policy
Abusive Conduct in the Workplace

Equal Employment Opportunity

The University of California is an Equal Opportunity Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, age, protected veteran status, or other protected status under state or federal law.



Direct Link: https://www.AcademicKeys.com/r?job=257978
Downloaded On: Jun. 7, 2025 1:49pm
Posted Jun. 6, 2025, set to expire Jul. 1, 2025

To apply, visit

https://careerspub.universityofcalifornia.edu/psc/ucb/EMPLOYEE/HRMS/c/HRS_HRAM_FL.HRS_CG_S

Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact

N/A

University of California, Berkeley

,