Lab Manager - 41167-1A

Updated: Oct 20, 2022
Location: Irvine-Campus
Job Type:
Department: Chemical & Biomolecular Engr

Job Opening ID: 41167
Reports To: Chief Administrative Officer (CAO)
Working Title: Lab Manager
Department: Chemical & Biomolecular Engr
Bargaining Unit: 99
FLSA: Exempt
Payroll Job Code: 007120
Job Location: UCI Campus- Irvine
Percent of Time: 100%
Work Schedule: 8-5, M-F
Employee Class: Career

Position Summary:

The Department of Chemical and Biomolecular Engineering is one of six academic departments in the Samueli School of Engineering at UCI. With 17 faculty, 275 undergraduates and 90 graduate students, we offer a vibrant academic community and a quality educational experience for our students. Our faculty expertise and active research programs span topics ranging from the production of biofuels, commodity chemicals, pharmaceuticals, and biomaterials; to materials, processes, and systems for sustainable energy storage and conversion; to the development of nano- and bio-technologies for novel sensing, diagnostic, imaging, and therapeutic applications; to computational modeling and simulation.

Uses skills as a seasoned, experienced engineering professional in a specialized engineering field on a major training and / or research effort. Assignments typically require concentration in a field of application where subject matter knowledge relevant to research objectives and methodology is of great value in understanding and establishing engineering design criteria. Demonstrates good judgment in selecting methods and techniques for obtaining solutions. Under the general supervision and direction of the Chair and Chief Administrative Officer (CAO) in the Department of Chemical and Biomolecular Engineering (CBE) in the Samueli School of Engineering, uses skills as a seasoned, experienced engineering professional in a specialized
engineering field on a major training and/or research effort to oversee operations and maintenance of CBE research laboratories and department teaching facilities. Assignments typically require concentration in a field of application where subject matter knowledge relevant to research objectives and methodology is of great value in understanding and establishing engineering design criteria. Demonstrates good judgment in selecting methods and techniques for obtaining solutions. Assists with research planning, analysis, and interpretation of data; designs, develops, and implements lab capabilities, prototypes, and specialized equipment. Serves as consultant on design and development issues; assists and advises undergraduate and graduate students, faculty, and visiting scholars towards safe and appropriate operation of all laboratory equipment and facilities; provides technical consultation for the procurement of research equipment. Trains users (including TA’s responsible for laboratory classes) on department instructional lab equipment. Serves as the Safety Officer for the Department.

Example:

25% Essential Performs basic design, development, modification and debugging of software. Evaluates basic software for functional areas. Analyzes existing software or works to formulate logic for basic systems, prepares basic specifications and performs coding.

<table>
<thead>
<tr>
<th>% of time</th>
<th>Essential Function (Yes/No)</th>
<th>Key Responsibilities (To be completed by Supervisor)</th>
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<tbody>
<tr>
<td>15</td>
<td>Yes</td>
<td>Provides full range of professional engineering services and technical administrative support to research projects; meets with research staff in the design and development phase. Designs, develops, and assists in the planning and implementation of laboratory and experimental equipment and facilities. Analyzes and troubleshoots laboratory problems – informs PIs - and takes action to resolve issues. Provides public relations support for the technical capabilities of the laboratories and responds to inquiries from local industry. Provides leadership and assistance for all community outreach programs. Coordinates access to labs, provision of equipment, and provision of facilities for incoming, outgoing, and visiting faculty and scholars.</td>
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<td>10</td>
<td>Yes</td>
<td>Determines project specifications and parameters. Analyzes needs and requirements for fabrication of specialized laboratory equipment. Advises on identification, designs, and implementation of the necessary infrastructure to produce efficient and safe performance during all laboratory activities. Manages and administers laboratory and facilities usage as requested from other departments.</td>
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<td>15</td>
<td>Yes</td>
<td>Performs design, construction, assembly, testing, and repair of complex experimental equipment and instrument systems. Provides oversight for all research laboratory equipment, instructional laboratory equipment, and departmental facilities in a safe and orderly fashion to ensure safe and reliable operation. Provides subject matter expertise towards repairs, calibration, and testing of research equipment as feasible. Selects provider or vendor and schedules / oversees all outside entities for repair, calibration, and/or professional certification of equipment. Selects</td>
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<td>40</td>
<td>Yes</td>
<td>Provides general and instructional laboratory management, safety oversight, and technical support. Provides engineering information, advice, and safety details to Principal Investigators and/or other faculty and research personnel with administrative responsibility for the research program or teaching facilities. Provides instruction – for faculty, TA’s, and students - on the safe and appropriate use of various types of laboratory equipment, specialized devices, and shared departmental resources. <strong>Trains and co-supervises Teaching Assistants in the operation of department instructional laboratory equipment, experimental processes, and apparatus operation.</strong> In collaboration with the course instructor(s) – provides professional engineering services in support of all instructional laboratory equipment and facilities in a safe and orderly fashion to ensure safe and reliable operation. In collaboration with the course instructor(s) - designs, develops, and assists in the planning and implementation of laboratory apparatus and experimental procedures. Provides consultation and engineering services for repairs and/or modifications of existing experimental equipment for the CBE classroom laboratory. Provides guidance to Teaching Assistants for teaching responsibilities as needed. Provides information regarding operating principles and operational methods and actively participates in all classroom lab sessions. Engages with students; advises, guides and proactively assists students with hands-on operation of classroom lab experiments and extracurricular projects (including, but not limited to ChemE Car and Senior Design). <strong>Designs and provides specifications for lab specimen samples.</strong> Directs all participants towards maintaining neat and well-organized laboratory spaces. Determines requirements and maintains adequate instructional lab supplies and consumables. Performs as department Safety Coordinator in collaboration with the School of Engineering Dean's Office to oversee activities such as the development of Chemical Hygiene Plans for laboratories - ensuring full compliance of the laboratory safety program. Enforces all safety measures in all laboratory areas. <strong>Provides and manages the infrastructure necessary to produce efficient and safe performance during all laboratory activities.</strong> Arranges for the proper accumulation, labeling, and disposal of hazardous waste from laboratory areas.</td>
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| 5  | Yes | Gathers, analyzes, prepares and summarizes annual and semi-annual reports. Gathers data and maintains the University’s Property Inventory System for all CBE laboratory equipment. Performs annual inventory inspections. |

| 5  | Yes | Implements related business processes as needed. Develops and implements safety standards for all lab operations. Analyzes, designs, and suggests equipment modifications and/or procedural changes in the operation of instructional lab experiments to simplify operation and improve results. |
In conjunction with the School of Engineering Facilities Director or Facilities Management staff, coordinates arrangements for renovation and construction activities for laboratories and department / faculty office spaces, as well as the coordination of new furniture / fixtures and/or equipment installations.

Other duties as assigned

Compensation Range:

$6,575 - $6,900

Department Website:

https://engineering.uci.edu/dept/cbe

Required:

Bachelor's degree in related area and / or equivalent experience / training. Thorough knowledge and experience with engineering principles and methods to independently perform the full range of engineering professional design work. Demonstrated organizational and decision-making abilities to prioritize competing work assignments in order to meet deadlines and adherence to quality standards. Strong analytical and judgment skills to independently conduct analyses and develop appropriate recommendations. Effective written and verbal communication and presentation skills to communicate effectively and professionally with students, staff, and faculty. Thorough knowledge necessary to apply principles, practices and procedures in the completion of assignments. Experience in managing experimental test laboratories and supervision of laboratory personnel. Ordering supplies, purchasing equipment, and communicating with vendors. Ability to maintain and repair laboratory equipment. Ability to work in a collaborative manner; identify challenges and barriers and recommend resolutions. Ability to lead and influence others. Experience in facilities construction and laboratory design. Highly developed analytical skills to solve problems in varied situations. Interpersonal skills to interact effectively with students, staff and faculty to provide instruction in the operation of equipment used in conducting experiments. Ability to maintain an atmosphere that fosters teamwork and collegial collaboration with all levels of users and diverse groups of people. Ability to complete projects and tasks independently and in a timely manner. Ability and flexibility to respond to changing priorities in a customer service environment. Ability to provide guidance and explanations to graduate and undergraduate students in laboratory procedures and safe / appropriate operation of lab equipment. Extensive experience and knowledge of procedures for the safe handling, storage, and waste management of chemicals as applicable to Federal and State EHS requirements, as well as applicable to UC Irvine EH&S policies. Possession of a positive, “can do” attitude. Strong sense of responsibility, excellent work ethic, and commitment to producing quality work. Excellent customer service skills. Skills, knowledge and ability to effectively develop, establish, teach and enforce laboratory safety procedures for students, PIs and guests.

Preferred:
Knowledge and experience in the design, development and fabrication of scientific apparatus and general fixtures. Knowledge, skill and ability to design, fabricate, install, and test experimental devices and instrumentation (chemical and mechanical) as needed for research and educational projects. Knowledge of instrumentation necessary to build experimental apparatus. Experience working with the apparatuses or devices illustrating Fluid Dynamics, Mass Transfer, Heat Transfer, Kinetics, Separations, and Bio-mechanics. Fundamental knowledge of Chemical Engineering apparatuses and processes.

**Conditions of Employment:**

The University of California, Irvine (UCI) seeks to provide a safe and healthy environment for the entire UCI community. As part of this commitment, all applicants who accept an offer of employment must comply with the following conditions of employment:

- Background Check and Live Scan
- Legal Right to work in the United States
- Vaccination Policies
- Smoking and Tobacco Policy
- Drug Free Environment

The following additional conditions may apply, some of which are dependent upon business unit or job specific requirements.

- California Child Abuse and Neglect Reporting Act
- E-Verify
- Pre-Placement Health Evaluation

Details of each policy may be reviewed by visiting the following page - [https://hr.uci.edu/new-hire/conditions-of-employment.php](https://hr.uci.edu/new-hire/conditions-of-employment.php)

**Closing Statement:**

The University of California, Irvine is an Equal Opportunity/Affirmative Action Employer advancing inclusive excellence. 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 categories covered by the [UC nondiscrimination policy](https://hr.uci.edu/ecommons/content/a2165b33-50c6-4732-8ee2-3f35f3b5905f).

We are committed to attracting and retaining a diverse workforce along with honoring unique experiences, perspectives, and identities. Together, our community strives to create and maintain working and learning environments that are inclusive, equitable, and welcoming. UCI provides reasonable accommodations for applicants with disabilities upon request. For more information, please contact Human Resources at (949) 824-0500 or [eec@uci.edu](mailto:eec@uci.edu).