



Job Description

Research Assistant – Integrated Sciences and Mathematics (Chemistry & Energy) Dhanani School of Science & Engineering

POSITION DESCRIPTION

A Research Assistant (RA) in the Integrated Sciences and Mathematics program provides essential pedagogical support to faculty and students in the program. The role involves interacting with students, preparing and grading course assessments, and coordinating different aspects, e.g. lab and lecture, of assigned courses. The RA is also expected to participate in and contribute to academic research at the department.

DUTIES AND RESPONSIBILITIES

- ✓ Help faculty in conducting lab sessions
- ✓ Running trials of experiments/lab assignments prior to lab sessions so as to familiarize themselves with the experiment/lab assignment and to uncover any problems with the equipment or laboratory instruction manuals and then demonstrating the necessary techniques to the students in 'pre-lab' sessions.
- ✓ Understanding of calculating and making molar stock solutions.
- ✓ Pre- preparing of necessary solutions prior to experiment
- ✓ Grading lab assignments and providing mid-term and end of term grades
- ✓ Preparing manuals for current or future experiments and upgrading and revision of manuals.
- ✓ Supporting the work of faculty in classes and laboratory sessions and giving technical advice to staff and students.
- ✓ Be familiar with all the laboratory equipment and preparing them before lessons.
- ✓ Ensuring that equipment is properly cleaned, checked for correct operation, checked for safety and appropriately stored.
- ✓ Maintaining and operating standard laboratory equipment for example pH meter, hot plate, spectrophotometer, pipettes, balances, use of fume hood etc.
- ✓ Record keeping, e.g. for students' practical sessions, tracking methods, results, etc.
- ✓ Ensuring laboratory stock is up to-date and resourced and ensuring pre-planned procurement before the lab sessions.
- ✓ Maintaining all glassware by placing orders and inventorying stock and verifying receipt.
- ✓ Troubleshooting breakdowns; maintaining supplies; performing preventive maintenance; calling for repairs.
- ✓ Ensuring that all health and safety procedures are understood and followed correctly
- ✓ Explaining to student's emergency procedures, use of fire blanket, emergency shower, emergency exit etc.
- ✓ Evacuation procedures in the event of fire -carry out regular evacuation practices.
- ✓ Should be familiar how to react in case of acid burns or chemical spillage specially to contact medical staff or emergency services.
- ✓ Uploading of all necessary resources prior to lab session to Learning Management System (LMS).
- ✓ Facilitate and guide students in their lab and class projects.
- ✓ Any other assignment given by the Dean/faculty
- ✓ **Key Skills required for the requested position:**
- ✓ Have a strong grip on basic science fundamentals specifically chemistry related.
- ✓ Be able to make detailed observations, analyze data, and interpret results.
- ✓ Have the capacity to assist in the development of fixtures, concepts, and prototypes for research and development and market analysis.
- ✓ Time management and team working skills.
- ✓ Ability to work independently.
- ✓ Proficient IT skills.
- ✓ Have excellent reading, writing and communication skills.
- ✓ Preferably, have some exposure of biological sciences.

REQUIRED JOB SPECIFICATIONS	
Required Qualification	✓ At least 16 years of education. Degree in Chemistry/Chemical Engineering
Required Experience	✓ None

REQUIRED JOB COMPETENCIES (Technical and Soft Skills)		
S#	Competency	Criticality (High / Low / Medium)
1.	Data Analysis via Matlab or similar software	High
2.	Labview	Low
3.	Making skills through tools workshop	Medium
4.	Excellent problem-solving skills	High
5.	Excellent reading, writing and communication skills	High

More information about the Dhanani School of Science & Engineering can be found at <https://habib.edu.pk/academics/sse/>

Applicants need to submit a cover letter, curriculum vitae, and copies of academic documents to be considered.

The application package can be emailed to shoaib.khan@habib.edu.pk, and CC to omar.mansoor@habib.edu.pk

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