

Job Code: 101633
Position #: (PSA) (E)
Developed by: GB
Reviewed by: LK; DLJ
Approved by: ... LK
Date: 3/21/23

UNIVERSITY OF RHODE ISLAND
Position Description

TITLE: Manager, Chemical Engineering Laboratory
DIVISION: Academic Affairs (College of Engineering: Chemical Engineering)
REPORTS TO: Department Chair/Director of Engineering Operations
GRADE: 10
SUPERVISES: N/A

BASIC FUNCTION:

Provide engineering and instructional support to manage, maintain, operate, and advance teaching and research laboratories in the Department of Chemical Engineering, including associated testing equipment and engineering instrumentation.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

Manage, maintain, operate, and advance Chemical Engineering teaching laboratory equipment involving materials fabrication and testing, bio/chemical processing, process engineering, fluids handling, heat and mass transfer, and unit operations. Current equipment includes but is not limited to distillation column apparatuses, heat exchangers, liquid extraction, gas absorption, powder mixing and flow, chemical and enzyme reactors, and fluid pumping.

Perform custom engineering of departmental laboratory equipment and experiments including mechanical, material, bio/chemical, electrical, and software system components.

Assist in the oversight and instruction of undergraduate and graduate students in the operation of laboratory equipment and software, and the collection of biological, chemical, mechanical, and physical data.

Coordinate with and assist in supervising graduate teaching assistants assigned to undergraduate teaching laboratories. This includes procuring and preparing necessary fluids, materials, consumables, and personal protective equipment.

Actively monitor teaching laboratories to ensure that general laboratory, materials fabrication and testing, and chemical process safety procedures are established and followed in compliance with established regulations and engineering standards.

Advise on and oversee improvements, expansions, and modifications of department teaching laboratories that derive from, for example, program evaluation and assessment.

Oversee the installation of new equipment and assist in coordinating technical and safety training for students, staff, and faculty.

OTHER DUTIES AND RESPONSIBILITIES:

Perform additional duties as required within the Department and College. These duties may include coordinating facility improvements for teaching and research laboratories, assisting with engineering laboratories in other departments within the College based on experience and qualifications, and working with college technical staff on collaborative projects.

LICENSES, TOOLS, AND EQUIPMENT:

Personal computers, printers; word processing, database, spreadsheet software; cloud computing and data storage; unit operations equipment such as heat exchangers, distillation, gas absorption, liquid extraction, filtration, crystallization, solids handling. Personal protective equipment.

ENVIRONMENTAL CONDITIONS:

This position is not substantially exposed to adverse environmental conditions.

QUALIFICATIONS:

REQUIRED: Bachelor's degree in engineering, technology, physical sciences (physics, chemistry, etc.), or related field; Minimum two years of engineering laboratory experience; Demonstrated experience with engineering laboratory equipment and instrumentation; Demonstrated strong interpersonal and verbal communication skills; Demonstrated proficiency in written communication skills; Demonstrated ability to work with diverse groups/populations.

PREFERRED: Master's degree in chemical engineering, technology, physical sciences (physics, chemistry, etc.), or related field; Minimum of two years of demonstrated professional experience in chemical safety, process engineering, and related software such as Aspen; Demonstrated experience teaching or assisting in instruction at the undergraduate level; Demonstrated supervisory experience; and Demonstrated familiarity with the Accreditation Board for Engineering and Technology (ABET).

ALL REQUIREMENTS ARE SUBJECT TO POSSIBLE MODIFICATION TO REASONABLY ACCOMMODATE INDIVIDUALS WITH DISABILITIES.