

ANALYTICAL INSTRUMENTATION SCIENTIST III

Function of Job:

Under the direction of designated supervisor, exercise judgment and apply the scientific method within generally defined practices and policies in selecting analytical methods, techniques, and evaluation criteria. Employ a variety of techniques with the responsibility for conducting a broad range of experiments on instrumentation in support of the University research and teaching community and other clients; instruct and/or assist faculty, staff, students, and clients on techniques and procedures for use of the facility's analytical instrumentation.

Characteristic Duties and Responsibilities:

1. Operate, calibrate, and maintain sophisticated computer-controlled analytical instrumentation for material, biological, and chemical analysis using various techniques (e.g., scanning electron microscopy, transmission electron microscopy, energy dispersive spectroscopy, nuclear magnetic resonance spectroscopy, ultraviolet-visible spectrophotometry, Fourier-transform infrared spectroscopy, and tandem gas-chromatography/mass spectrometry). Employing scientific methods and principles, develop and standardize procedures for new and revised analyses.
2. Provide help and basic training to students, faculty, and staff in the safe operation and function of the instrumentation.
3. Maintain current knowledge as new techniques and accessories for the instruments become available, including research of current literature.
4. Maintain and manage assigned databases, spreadsheets, and other records as required by individual projects; use them to solve problems and analyze data.
5. Troubleshoot instrument and scientific methodology problems to ensure efficient operation of the instruments.
6. Apply analytical quality control techniques according to governmental procedures, including interpreting or verifying analyses and performing related examinations.
7. Assist with designated projects for research community/clients and participate in execution of them as assigned.
8. Train subordinate instrumentation scientists in the theory and practices of specialized fields.
9. Perform related duties as assigned.

Minimum Acceptable Qualifications:

1. Bachelor's degree in chemical or biological science (or relevant science) and four years of experience in research related use of instrumentation, or a master's degree in chemical or biological science (or relevant science) and one year of experience in research-related use of instrumentation.
2. Computer literacy and computer skills including use of word processing, spreadsheets, and databases.
3. Skill in reading meters, graphs, and other mechanical and electronic equipment.
4. Thorough knowledge of laboratory safety, equipment, techniques, procedures, and language.
5. Ability to perform scientific procedures with a high degree of accuracy and precision.
6. Ability to prepare scientifically accurate and thorough reports.
7. Effective oral and written communication skills.

Additional Desirable Qualifications:

1. Experience in a college/university environment.
2. Additional experience beyond minimum requirements.
3. Project management skills and/or supervisory ability.
4. Customer service experience.
5. Familiarity with instrumentation found in the employing department.

11/8/2002
System Approval

11/8/2002
Effective Date

This document is a generic classification specification of the University System of New Hampshire. Its purpose is to describe the representative responsibilities and general level of complexity, and it is not a substitute for the specific job description of the individual position