Permanent Position | SEM Facility Manager
NU*ANCE* Center - Northwestern University

NU*ANCE*, Northwestern University's Atomic and Nanoscale Characterization Experimental Center, is seeking candidates for a permanent SEM Facility Manager position. The SEM facility comprises a comprehensive suite of state-of-the-art instruments and serves an active and vibrant user base from Northwestern as well as external users from the greater Chicago region. The SEM Facility Manager oversees all aspects of the Scanning Electron Microscopy facility in the NU*ANCE* Center including: equipment purchasing, upgrades and maintenance; supervision of SEM Facility staff; user training and technical support on all SEM instruments and related equipment; course development and teaching of laboratory components of SEM related courses; development of new analytical techniques and capabilities; providing analytical services for both internal NU and external industrial clients; conducting facility tours and demonstrations. In addition, this position has primary technical responsibility for the dual-beam Focused Ion Beam (FIB) instrument and assists in sample preparation for all electron microscopy, including Transmission Electron Microscopy (TEM). The successful candidate will work closely with Northwestern's Materials Science and Engineering department.

Qualifications:
A four-year course of study leading to a bachelor's degree in Materials Science, Physics or a related physical science/engineering field is required, with preference given to candidates with a master's or PhD. The preferred candidate will have at least 2 years of hands-on experience in advanced SEM imaging, related analytical techniques and sample preparation methods for physical science/engineering materials. Proven publication record utilizing advanced SEM techniques and applications is preferred.

Skills:
The preferred candidate will have demonstrated expertise in advanced SEM techniques, including: FIB, EDS, WDS, EBSD, among others. The candidate will have demonstrated expertise in SEM-related sample preparation skills, including dual-beam FIB techniques. The candidate will have demonstrated the ability to facilitate laboratory sessions for hands-on course and curricula related to conventional and advanced electron microscopy. The candidate should have experience using software for advanced image processing and data analysis. The successful candidate will be customer-oriented and demonstrate the ability to design experiments and guide users in solving innovative problems in materials characterization.

Duties:
The selected candidate will be responsible for training and assisting users on conventional and advanced SEM applications, facilitating laboratory sessions for microscopy courses, and conducting analysis and characterization using advanced electron microscopes.

The successful candidate will develop informed and well-trained user base in advanced SEM and related sample preparation and characterization techniques. The incumbent will participate in user training, hands-on assistance, development of short-courses, and overall facility development. Essential to the success of this position is enhancing both the visibility and advanced utilization of the SEM and other microscopes to promote scholarly activities among the faculty, student and staff user base.

The selected candidate will regularly conduct advanced SEM analysis, consult and collaborate with users on experiment design & research in electron microscopy, sample preparation and general lab equipment. There are ample opportunities for independent and collaborative research utilizing advanced SEM.

Visit Northwestern's jobs board to apply: https://www.northwestern.edu/hr/careers/ (Job ID: 34899)

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