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Job Title MSE Tenure-Track Positions 2025 - 2026

Department Department of Materials Science and Engineering

Institution University of Pennsylvania

Philadelphia, Pennsylvania

Date Posted Oct. 9, 2025

Application Deadline Dec. 1, 2025

Position Start Date Available immediately

Job Categories Assistant Professor

Associate Professor

Academic Field(s) Material/Metallurgy

Engineering - Other

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Job Description

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MSE Tenure-Track Positions 2025 - 2026

Location: Philadelphia, PA **Open Date**: Oct 06, 2025

The <u>Department of Materials Science and Engineering</u> is engaged in a multi-year hiring effort for tenure-track professors whose interests are aligned with the <u>School of Engineering and Applied</u> Science's strategic plan.

Applicants from all materials-related research areas are invited to apply, with particular interest in



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candidates who develop and/or use artificial intelligence, data science, and machine learning tools for new quantum materials discovery, synthesis, characterization, and applications with precisely controlled responses to external fields. Penn Engineering has signature initiatives in Data Science, Quantum devices and engineering (QUIEST) and Energy and Sustainability, as well as world-class facilities at the Singh Center for Nanotechnology and the Laboratory for Research on the Structure of Matter.

We seek individuals who are committed to nurturing and building our scholarly community in the broadest sense, participating in departmental, school-level, and university-level efforts towards this goal, and to work closely with students to identify and address challenges.

Penn Engineering strongly supports dual career couples, and we welcome and encourage inquiries about dual career assistance (for academic and non-academic opportunities) at an early stage of the recruitment process.

Quantum Materials Discovery, Synthesis, and Characterization for Advanced Applications: The discovery, development and characterization of new materials is crucial for advancing electronic, optoelectronic, energy and quantum technologies. It is anticipated that new, highly engineered materials will be synthesized with control over local atomic bonding, structure, ordering of defects, charges, spins, and polarization along with novel quantum geometries and topologies. We seek candidates with expertise in developing modern tools involving artificial intelligence, data science, and machine learning algorithms for new quantum materials discovery with precisely controlled responses to applied fields. Of particular interest are candidates who utilize AI/ML tools to predict and synthesize new materials, encompassing both bulk and low-dimensional materials, with applications in intelligent device platforms.

Areas of interest include but are not limited to:

- Autonomous and Al-driven approaches to materials discovery and optimization
- Data driven design and synthesis of bulk crystals, epitaxial growth of complex heterostructures, and thin film deposition techniques
- Scalable methods for producing low-dimensional materials
- Predicting and controlling material composition, structure, and properties at multiple length scales
- Bridging fundamental materials science with applications in electronics, photonics, and quantum engineering



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The ideal candidate will demonstrate proficiency in predicting and controlling material composition, structure, and properties at multiple length scales to enable next-generation devices. Candidates who connect fundamental materials science to device performance are encouraged to apply, particularly those fostering interdisciplinary collaborations. Candidates should have a strong background in materials theory, synthesis, and/or characterization, with a vision for how their approaches can address current challenges in device performance and functionality while accelerating materials innovation.

Prof. Ritesh Agarwal chairs this search committee. Candidates are encouraged to apply early in order to be given full consideration. Deadline to receive applications is **December 1, 2025**.

Qualifications

Must have a Ph.D. in Materials Science and Engineering or related disciplines.

Application Instructions

- Applications must be submitted online via Interfolio. Applications include:
- Cover Letter
- Curriculum vitae
- Research statement (5-page limit)
- Teaching statement (2-page limit)
- Three confidential letters of recommendation

To apply, visit https://apply.interfolio.com/175136

Equal Employment Opportunity Statement

The University of Pennsylvania is an equal opportunity employer. Candidates are considered for employment without regard to race, color, sex, sexual orientation, religion, creed, national origin (including shared ancestry or ethnic characteristics), citizenship status, age, disability, veteran status or any class protected under applicable federal, state, or local law.



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Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact

Department of Materials Science and Engineering University of Pennsylvania

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