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Job Title Assistant Professor (TT) Mechanical and Industrial

Engineering - Additive Manufacturing

**Department** Mechanical and Industrial Engineering (MIE)

**Institution** University of Massachusetts Amherst

Amherst, Massachusetts

Date Posted Oct. 2, 2025

Application Deadline Open until filled

Position Start Date Available immediately

**Job Categories** Assistant Professor

Academic Field(s) Mechanical Engineering

Material/Metallurgy

Manufacturing & Quality Engineering

Apply Online Here https://careers.umass.edu/amherst/en-

us/job/528519/assistant-professor-tt-mechanical-and-

industrial-engineering-additive-manufacturing

Apply By Email

**Job Description** 

The flagship of the Commonwealth, the University of Massachusetts Amherst is a nationally ranked public land-grant research university that seeks to expand educational access, fuel innovation and creativity, and share and use its knowledge for the common good. Founded in 1863, UMass Amherst sits on nearly 1,450-acres in scenic Western Massachusetts and boasts state-of-the-art facilities for teaching, research, scholarship, and creative activity. The institution advances a diverse, equitable, and inclusive community where everyone feels connected and valued—and thrives, and offers a full range of undergraduate, graduate and professional degrees across 10 schools and colleges, and 100



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undergraduate majors. We believe every member of our university community can contribute to our ongoing success by striving for the highest level of excellence as we seek breakthrough solutions to mounting environmental, social, economic, and technological challenges in our world.

UMass Amherst is a leader in providing institutional supports for faculty to combine work and family/personal responsibilities, and has been listed among the Chronicle of Higher Education's?"Great Colleges to Work For,"?UMass is in the top 10% of public research-intensive universities in the COACHE survey for making having and raising children compatible with the tenure-track. UMass Amherst maintains a nationally recognized ADVANCE Institutional Transformation program that seeks to increase equity in STEM fields through collaboration (<a href="https://www.umass.edu/advance/home">https://www.umass.edu/advance/home</a>). For more information on work-life balance at UMass Amherst, see? <a href="https://www.umass.edu/prospective-faculty/work/balance">https://www.umass.edu/prospective-faculty/work/balance</a>

The **Daniel J. Riccio Jr. College of Engineering** is recognized as one of the top 30 public engineering schools in the country by U.S. News & World Report and is the #1 public engineering program in New England. Our inclusive community includes ~2400 undergraduate, ~750 graduate students and ~150 instructional faculty across five engineering departments—biomedical, chemical, civil and environmental, electrical and computer, and mechanical and industrial. Our faculty members are developing life-saving medical devices and therapeutics, designing smart infrastructures, tackling climate change, and revolutionizing materials science, computing, and cybersecurity. They are recipients of prestigious national awards, including 18 CAREER Awards in the last five years. With over \$60 million in research expenditures and 20+ affiliated research centers and programs, we're at the forefront of innovation and discovery. The college's new Sustainable Engineering Laboratories building, slated to open in Fall 2026, will offer immersive labs and learning spaces, enabling us to test and develop technologies that address real-world sustainability challenges. Learn more at https://www.umass.edu/engineering/ and https://engineering.umass.edu/sustainable-engineeringlaboratories. For more on the College of Engineering and our mission: ( https://www.umass.edu/engineering/about/mission-vision-and-inclusivity-statement). The College strives to be a leader in transformative engineering education, supporting faculty in the development of their teaching expertise through various initiatives such as our membership in the Kern Entrepreneurial Engineering Network (KEEN).

UMass Amherst offers state-of-the-art additive manufacturing facilities: <u>Advanced Digital Design and Fabrication (ADDFab</u>), including laser powder bed fusion, directed energy deposition, a cutting-edge two-photon nanoprinter, advanced wire arc, and cold spray AM systems. In 2025, the ADDFab core facility also acquired a state-of-the-art 2-photon polymerization-based direct laser writing 3D nanoprinter, UpNano NanoOne Bio, to support cleanroom-free micro and nanoscale device fabrication. Additional capabilities include a newly installed wire arc additive manufacturing system in MIE and a



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cold spray system in the National Polymer Institute, supporting large-scale and advanced metal-based AM research. These resources represent a significant institutional investment and provide an exceptional environment for cutting-edge research and education in AM. The MIE Department seeks candidates whose research, teaching, and service will leverage these facilities to enhance both innovation and diversity within our vibrant academic community. The MIE Department has 40 full-time faculty members, over 225 graduate students, and over 800 undergraduates. The MIE Department has a long history of successful interdisciplinary research, including digital design and manufacturing, materials science and engineering, robotics, wind and renewable energy, bioengineering, and computational and experimental fluid dynamics. Academic units affiliated with the department include the Wind Energy Center, Energy Transition Institute, Marieb Center for Nursing and Engineering Innovation, I-Corps at UMass, Center for Personalized Health Monitoring, Institute for Applied Life Sciences, and the UMass Transportation Center. Several MIE faculty members are also affiliated with the newly established Materials Science and Engineering interdisciplinary graduate program.

### **Job Description**

The Department of Mechanical and Industrial Engineering (MIE) at the University of Massachusetts Amherst invites applications for a tenure-track faculty position at the assistant professor level in the area of additive manufacturing. Under exceptional circumstances, highly qualified candidates at other ranks may receive consideration. The appointment is expected to begin on September 1, 2026. We are interested in Applicants are encouraged to describe how their work aligns with the goals and values outlined in the university's strategic plan, including advancing equity and inclusive excellence.

We seek candidates with expertise in additive manufacturing at various scales, including the development, characterization and employment of advanced materials such as alloys, ceramics, and multi-material systems, and especially with applications in biomedical, aerospace, and energy systems. Scholars working across disciplines or in emerging areas of additive manufacturing and related process innovation are particularly encouraged to apply. The successful candidate is expected to demonstrate a commitment to excellence in research and student mentoring, to teach existing graduate and undergraduate courses in Mechanical Engineering, and to develop innovative new curricula in their areas of interest or across disciplines.

#### **Requirements:**

The successful candidate should have earned a Ph.D. in Mechanical Engineering, Materials Science and Engineering, Manufacturing Engineering, or related fields at the time of appointment. Applicants



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must demonstrate potential for scholarly excellence and for developing an externally funded research program. The faculty is expected to maintain an internationally recognized scholarly presence, collaborate in interdisciplinary research teams, and effectively mentor graduate students and postdoctoral fellows. Candidates must be able to teach existing undergraduate and graduate courses in mechanical engineering, specifically, courses in Manufacturing and Materials Engineering, in addition to developing courses in their area of expertise.

### Salary Range

It is expected that the salary range for this position is between \$79,350 and \$127,930.? Please note:

- The low-end of the pay range in all faculty searches at the University of Massachusetts Amherst is the minimum salary for the rank included in the collective bargaining agreement between the University and the Massachusetts Society of Professors, UMass Amherst/MTA/NEA.?
- The high-end of the pay range encompasses all faculty in this discipline at this rank which includes faculty with multiple years of faculty experience.?
- The specific pay for this position will be determined by the University based on consideration of all relevant factors when and if it decides to extend an offer of employment.?

### **Application Instructions**

Candidates must apply online and provide the following in their application package. Applications should be addressed to the Search Chair. For full consideration, applications should be received by **November 1, 2025**; applications submitted after this date will be reviewed until the search is completed. All applications must be accompanied by the following materials (PDF files only):

- (1) A cover letter, addressed to "Additive Manufacturing Faculty Search Committee": The cover letter should a) introduce yourself, b) briefly describe your research interests, and c) describe your vision for this position, and d) briefly describe how your research, teaching, service, or lived experience aligns with the university's values and goals as outlined in the Strategic Plan -- For the Common Good. Page limit: 1 page
- (2) A research statement: Candidates should situate their past research in a broader scholarly context and give their research vision for this position. Candidates are specifically asked to mention the types of scholarship they will perform, how that scholarship will be disseminated, and the expectation for how that scholarship will be funded, and, if possible, any connections to community engagement,



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broadening participation in STEM, or grand challenges in engineering. Statements will be evaluated based on an assessment of demonstrated excellence or demonstrated promise of future excellence. Page limit: 4 pages

- (3) A teaching statement: Candidates should describe their past teaching experience and express their teaching vision for this position. Candidates are specifically asked to mention departmental courses that they are qualified to offer, and also mention classes they are interested in developing. Please discuss any plans for incorporating project-based learning, community engagement, and/or strategies for making engineering engaging and accessible to students. Candidates should address both undergraduate and graduate classes. Candidates should address both undergraduate and graduate classes. Statements will be evaluated based on an assessment of demonstrated excellence or demonstrated promise of future excellence. Page limit: 2 pages
- (4) A current curriculum vitae. The CV should list: 1) education, 2) employment, 3) awards and honors, 4) sponsored research (if any), 5) peer-reviewed publications, 6) service, and 7) other sections as considered appropriate by the candidate.
- (5) Contact information (name, title, email address, institution) for 3 professional references. References will not be contacted until the second phase of the search.

#### Process

The steps of the process are as follows:?

- A minimally qualified pool is identified from the applicants, ideally by the beginning of December 2025.?
- All remaining candidates are evaluated and a "long list" is identified, which will be interviewed via video conference. Candidates invited to these interviews will be emailed at least one week before the scheduled date.??
- For candidates advancing to the long list: references will be contacted, and candidates will have an opportunity to submit 1 or 2 representative scholarly works.?
- A "shortlist" is developed from the long list, and these candidates will be invited to interview on campus. While we anticipate interviews on campus in February.?



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The University of Massachusetts Amherst welcomes all qualified applicants and complies with all state and federal anti-discrimination laws.

#### **Contact Information**

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

Contact

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