

Additive Manufacturing and Design at Penn State



As a leader in additive manufacturing and design (AMD) education and research, Penn State prepares tomorrow's additive manufacturing engineers to advance and enhance manufacturing concepts and capabilities. Through its **master of engineering, master of science, and graduate certificate** in AMD, Penn State provides flexible residential and online options to meet the needs of today's graduate students.

amd.psu.edu

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Graduate Program Offerings

Graduate Certificate

- Offered online through a partnership with Penn State World Campus
- Full-time or part-time enrollment available
- 12 credits

Master of Engineering

- Offered online through a partnership with World Campus
- Full-time or part-time enrollment available
- 30-32 credits
- Scholarly paper required

Master of Science

- Offered in-residence at University Park
- Full-time enrollment
- 30-36 credits
- Master's scholarly paper or thesis required

Education and Research

AMD courses and research showcase the multidisciplinary aspect of the program, offering big picture concepts and in-depth experiences and education.

Core course topics highlight:

- Science of Additive Manufacturing
- Additive Manufacturing Materials
- Design for Additive Manufacturing
- Additive Manufacturing Processing
- Metal Additive Manufacturing Lab

More than 60 leading AMD faculty at Penn State explore existing and emerging multidisciplinary fields including:

- Cybersecurity
- Data Science
- Bioprinting
- In Situ Sensing
- Machine Learning
- Materials Design



35+

State-of-the-art 3D-printing labs and facilities at University Park [Learn more](#)