

Personnel Certificate Program: ASTM Professional Certificate Course in AM

A Comprehensive Training Covering the Entire AM Process Chain

Developed in compliance with ASTM E2659 standard requirements

Hosted by AMIIC | Huntsville, AL | April 11-14, 2023



www.amcoe.org/events

ABOUT THE COURSE

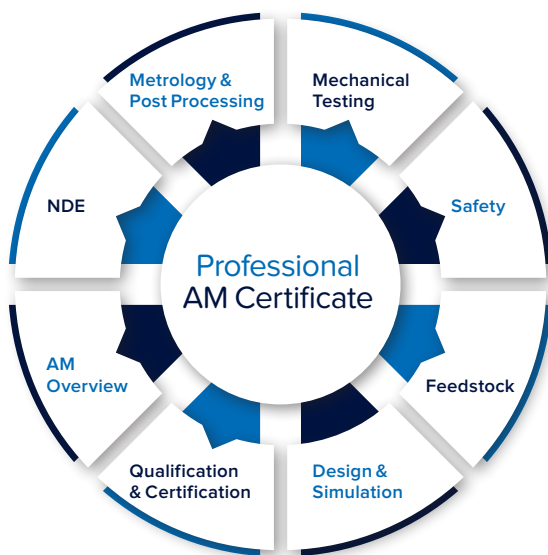
ASTM Professional Certificate Course in AM is comprised of 8 modules that cover all the general concepts of the AM process chain.

This course will equip attendees with core technical knowledge related to common AM practices and will allow them to earn a Professional AM Certificate that will serve as the foundation for the role-based certificate courses offered by ASTM AM CoE. Attendees will complete a multiple-choice exam upon course completion.

Who Should Attend?

Whether you are just stepping into AM or if you have experience and are looking to advance your knowledge and stay relevant, this course is for you. The course is recommended for technicians, managers, engineers, and other individuals from government agencies, industry, and academia with any level of AM experience.

This course aims to provide a foundation for AM body of knowledge:

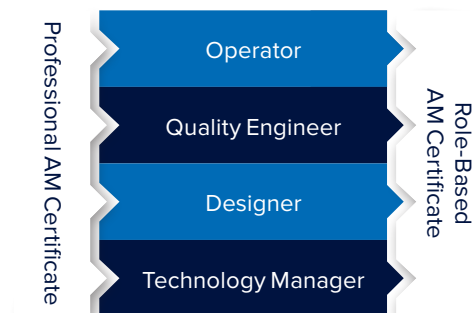


Why Sign Up?

- Gain core foundational technical knowledge covering the entire AM process chain
- Stand out in the industry with ASTM E2659-18-compliant certificate from the globally recognized ASTM AM CoE
- Chart your own path: This course is the first step toward multiple AM CoE role-based certificates
- Each module taught by experts from academia, industry, national labs, and regulatory bodies







A True Collaboration

- 1 Collaborative effort among all ASTM International AM CoE Partners
- 2 Partners develop syllabi for each module to guide development
 - ASTM International CoE selects top AM experts to serve as instructors
 - Instructors build individualized content using the AM CoE syllabi
- 3 AM CoE partners review content and work closely with instructors to ensure course content quality



OVERVIEW OF TOPICS

Courses are led by world-renowned AM experts from industry, academia and government.

 MODULE 1	 MODULE 2	 MODULE 3	 MODULE 4
Additive Manufacturing Process Overview and Standard Terminology Provides an overview of AM with descriptions of different AM process categories, process steps, materials, applications and associated terminologies	Feedstock Covers feedstock behavior and its effects on part performance, powder characterization techniques, powder handling and storage, and powder re-use strategies	Design and Simulation Outlines key considerations for AM design, including creating and working with design files, defining requirements, criticality, material suitability, and conducting analysis and simulation	AM Safety Provides an outline of safety considerations, including insights on risk assessment strategies such as identifying hazards, mitigation measures, facility design considerations, engineering and administrative considerations, and regulatory codes applicable to AM
 MODULE 5	 MODULE 6	 MODULE 7	 MODULE 8
Non-Destructive Inspection Details non-destructive testing and inspection methods that can be applied to AM. Specific techniques are explained along with their benefits, limitations, and other requirements to perform the inspection	Metrology & Post Processing Provides a fundamental understanding on the applications of metrology on AM and various post-processing methods, procedures, thermal processes, as applicable to different material systems	Mechanical Testing Focuses on fatigue testing and characterization and addresses testing requirements applicable to AM parts. Static and dynamic test methods, testing considerations, and interpretation of the results are the key focus areas	Qualification and Certification, Parts 1 & 2 Provides a general understanding on the activities necessary to qualify a process and certify a part against a set of application-based regulations

Technical Chairs



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EARN A DIGITAL BADGE after successful completion of this course. These badges are an innovative way to showcase career knowledge, skills, and abilities obtained through professional development. Add the badges to your digital portfolios or share on social and professional networks.