





ADDITIVE MANUFACTURING



Gain awareness on the best practice and the latest advancements in AM

Learn from experts from ASTM AM CoE

Earn a globally recognized certificate from ASTM International

Opening Address:

Dr. Alex Liu
Director
Advanced Manufacturing Programs –
Asia Region
ASTM International

Instructors:

Dr. Alex Liu, ASTM International Mr. Andy Lu, ASTM International

Point of Contact:

Mr. Andy Lu, ASTM International alu@astm.org

About the Course

Course Level: Intermediate to Advanced users

Course Language: English & Japanese translation provided Course Textbook: English textbook & Japanese supplemental text

This course covers the requirements and routes to validation for metal additive manufacturing parts produced by powder bed fusion and directed energy deposition manufacturing processes. This course will leverage recent case studies from the PBF and DED world to provide context for Structural Integrity challenges and opportunities.

The 2-day training course is based on ISO and ASTM standards and is aimed at those who are using, or plan to use, AM in serial or critical applications and would like to learn more about the routes to Qualification and Certification. Attendees would be required to have a strong background in Additive Manufacturing.

The instructors have in-depth experience of Materials, Qualification & Certification, and making parts from Additive Manufacturing Methods. The learning methods are based on logic and experience, and real-life best practices (and lessons learned) will be shared. This is not a series of lectures; there will be discussions, mini-workshops, and plenty of opportunities to ask questions.

Who should attend?

This course is suitable for AM Engineers, AM operators, QA/QC Engineers, and other individuals with existing experience in AM who wish to know the route to qualification and certification.

Course Fees:

\$799 per person (early-bird price for registration at/before Jul 05) \$999 per person (regular price for registration after Jul 05) Caution: This course may be canceled if there are few participants.

Registration Link: Scan or click the QR code on the right.









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Day 1 Sep 04	Topics	Day 2 Sep 05	Topics
1000 – 1030	Registration; Welcome and Introduction	1000 – 1030	Recap of Day 1; Q & A Session
1030 – 1130	 AM Foundations Fundamentals of Qualification & Certification Key ingredients Overview of Qualification & Certification framework Overarching and foundational controls 	1030 – 1115	Material Properties, Allowable, Material Property Suite Material Properties Material allowable and design values Mechanical property measurements Engineering equivalence Material property suite
1130 – 1230	Classifications & Consequences	1115 – 1230	Part Production Controls, NDE Considerations, Defects, Managing Supply Chain • AM part planning & AM part production plan • Pre-production article • Qualified AM Part process • NDI considerations & Part Zoning • In-situ monitoring & Supply chain
1230 – 1400	Lunch Break		
1400 – 1500	Requirements & Standards		
		1230 – 1400	Lunch Break
1500 – 1730	Route to Qualification & Certification • Materials and process foundations • Machine and process qualifications • IQ/OQ/PQ • Candidate Material Qualification	1400 – 1530	 Qualification Testing & Service Qualification testing Industry perspective on AM qualification
		1530 – 1700	Case Studies, Working Session for Critical Applications