





October 29 - 31, 2025\*

Hosted by Monash University Monash Centre for Additive Manufacturing, Monash University

# **ASTM CERTIFICATE COURSE**

# Methods of Qualification and Certification for AM

ASTM International, who has been providing world-class training on Additive Manufacturing (AM), provides a training course with the mission to support scaling up of AM adoption.

\*Full-day sessions (Wed - Thu, 10 a.m. – 6 p.m.)
\*Full-day session Industry Insights and Technical Workshop (Fri, 10 a.m. – 6 p.m.)

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

Learn from experts from ASTM AMCoE

Earn a globally recognized certificate from ASTM International

## **Opening Address:**

Dr. Alex Liu Director, ASTM International

> Prof Aijun Huang Director, MCAM

## Instructors:

Dr. Alex Liu Director, ASTM International

Mr. Andy Lu Manager, ASTM International

> Dr Tom Jarvis Lab Manager, MCAM

## **Point of Contact:**

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

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### **About the Course**

#### Course Level: Intermediate to Advanced users Course Language: English Course Textbook: English textbook and 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 in 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:**

1499USD per person (early-bird price for registration before Aug 28) 1699USD per person (regular price for registration after Aug 29) **Caution**: The course may be cancelled if enrollment is low.

If cancelled, the paid course fee will be refunded fully.



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







ADDITIVE MANUFACTURING

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Day 1	Topics
1000 – 1030	Registration; Welcome and Introduction
1030 – 1130	<ul> <li>AM Foundations</li> <li>Fundamentals of Qualification &amp; Certification</li> <li>Key ingredients</li> <li>Overview of Qualification &amp; Certification framework</li> <li>Overarching and foundational controls</li> </ul>
1130 – 1230	<ul> <li>Classifications &amp; Consequences</li> <li>AM Part Classification</li> <li>Consequences</li> <li>Structural Integrity</li> </ul>
1230 – 1400	Lunch Break
1400 – 1500	<ul> <li>Requirements &amp; Standards</li> <li>Requirements overview</li> <li>Importance of standards</li> <li>Process mapping with standards</li> <li>Regulatory requirements</li> </ul>
1500 – 1730	<ul> <li>Route to Qualification &amp; Certification</li> <li>Materials and process foundations</li> <li>Machine and process qualifications</li> <li>IQ/OQ/PQ</li> <li>Candidate Material Qualification</li> </ul>

Day 2	Topics
1000 – 1030	Recap of Day 1; Q & A Session
1030 – 1115	<ul> <li>Material Properties, Allowable, Material</li> <li>Property Suite <ul> <li>Material Properties</li> <li>Material allowable and design values</li> <li>Mechanical property measurements</li> <li>Engineering equivalence</li> <li>Material property suite</li> </ul> </li> </ul>
1115 – 1230	<ul> <li>Part Production Controls, NDE Considerations, Defects, Managing Supply Chain</li> <li>AM part planning &amp; AM part production plan</li> <li>Pre-production article</li> <li>Qualified AM Part process</li> <li>NDI considerations &amp; Part Zoning</li> <li>In-situ monitoring &amp; Supply chain</li> </ul>
1230 – 1400	Lunch Break
1400 – 1530	<ul> <li>Qualification Testing &amp; Service</li> <li>Qualification testing</li> <li>Industry perspective on AM qualification</li> </ul>
1530 – 1700	Case Studies, Working Session for Critical Applications