

Stratasys Additive Manufacturing Certification Program





Stratasys FDM Certification Program

What are we trying to solve with Certification



Lack of industry-
endorsed **proof** of
workforce ready am skills
and knowledge



Inconsistent
development of **skills**
industry demands in am



Need for skilled AM
workers available for
industry jobs



Interest of our
customers (community
colleges/tech schools)
academic programs



Access for schools to
over \$2B in workforce
development **funding**
from the government for
training/prep programs



Ability to showcase /
prove job-related skill
attainment adding
certification to student's
qualifications - degree
and resume/CV – and
increasing employability.

Target Certification Personas



Full-time students at Vocational, Technical, 2 year or 4 year post-secondary schools, advanced technical high schools, looking for workforce readiness and credentials. Newer to additive with basic 3D CAD skills.



Non-traditional/non-degree students working towards certificate or workforce credentials to enter, re-enter or advance in the workforce. Newer to additive.

Partnership with NOCTI

Products and Services

- National Industry Standard Development
- High-Stakes Credential Development & Delivery
- Micro-Credentials
- Digital Badging Platform
- Remote Proctoring
- College Credit Recommendations
- Workforce Competency Credential
- Study Guides
- Professional Development

NOCTI

**National Leader in CTE
Credentialing Solutions &
Resources**



Customers

- Middle school programs
- Secondary CTE programs (e.g., career centers, area/regional centers, comprehensive high schools)
- Postsecondary CTE (e.g., technical colleges, community colleges, universities)
- Adjudicated youth
- CTE Teachers, Administrators and Data Professionals

Partnership with NOCTI



Our Partnership

Stratasys and NOCTI have partnered together to offer a general FDM certification exam focused on testing the competencies and skills for materials, design + fabrication, software processing + communication and post-processing.



Funding You Deserve

Get the funding you deserve to open up opportunities to offer Additive Manufacturing courses with options available through national and local sources.



Career Ready

Additive plays a key role across industries, but there is a widening gap between the technology and the number of skilled workers who can drive it. Certification will prepare the workforce of tomorrow by offering a professional proficiency credential in additive manufacturing technologies, industries and applications.



Assessment Blueprint

Specific Competencies and Skills in this Assessment:

Industry and Applications	Describe industry utilization for Fused Deposition Modeling (FDM)
	Identify primary applications for FDM
Technology and Specifications	Identify key safety areas
	Define system specifications for FDM Stratasys printers
	Recognize system hardware
	Describe FDM operations
	Articulate performance of routine user-maintenance
Materials	Define American Society for Testing and Materials (ASTM) standards
	Discuss material properties and performance by application
	Identify support materials that can be used with associated model material
	Identify compatible materials available for various platforms
Design and Fabrication	Describe additive general design considerations
	Describe the anatomy of MESH
	Articulate impacts of CAD to STL export settings

Software Processing and Communication	Demonstrate GrabCAD Print workflow
	Demonstrate Insight workflow and advanced processing
Post-Processing	Define post-processing and finishing
	Identify basic tools needed for post-processing
	Define primary FDM processes
	Define secondary FDM processes

Written Assessment:

Administrative Time: 2 hours
Number of Questions: 100

Areas Covered:

12% Industry and Applications
26% Technology and Specifications
17% Materials
8% Design and Fabrication
25% Software Processing and Communication
12% Post-Processing



Requirements



Institution

Hardware & Materials (FDM) – F123 or higher end Stratasys FDM system



Instructor

MUST be knowledgeable and engaged with 3D print technology

- Pay for T&E and attend in-person training at a certified knowledge transfer site
- Pass certification exam



Student

- Exam fee (\$30 per student), GrabCAD Print software
- 3D Design SW
- Exam prep with host institution & proctored exam

Why Certification is important..

“Employers want to know that the person they are hiring has a certain skill set that allows them to do the required job at the desired level, I believe it takes some of the guess work out of hiring.”

Christopher M. Padula,
Diman Regional Technical School

*“Provides a systematic program to understand the fundamentals of AM developed with a world leader in AM systems. The certification exam provides a method to evaluation comprehension so **industry knows what they are getting from graduates.**”*

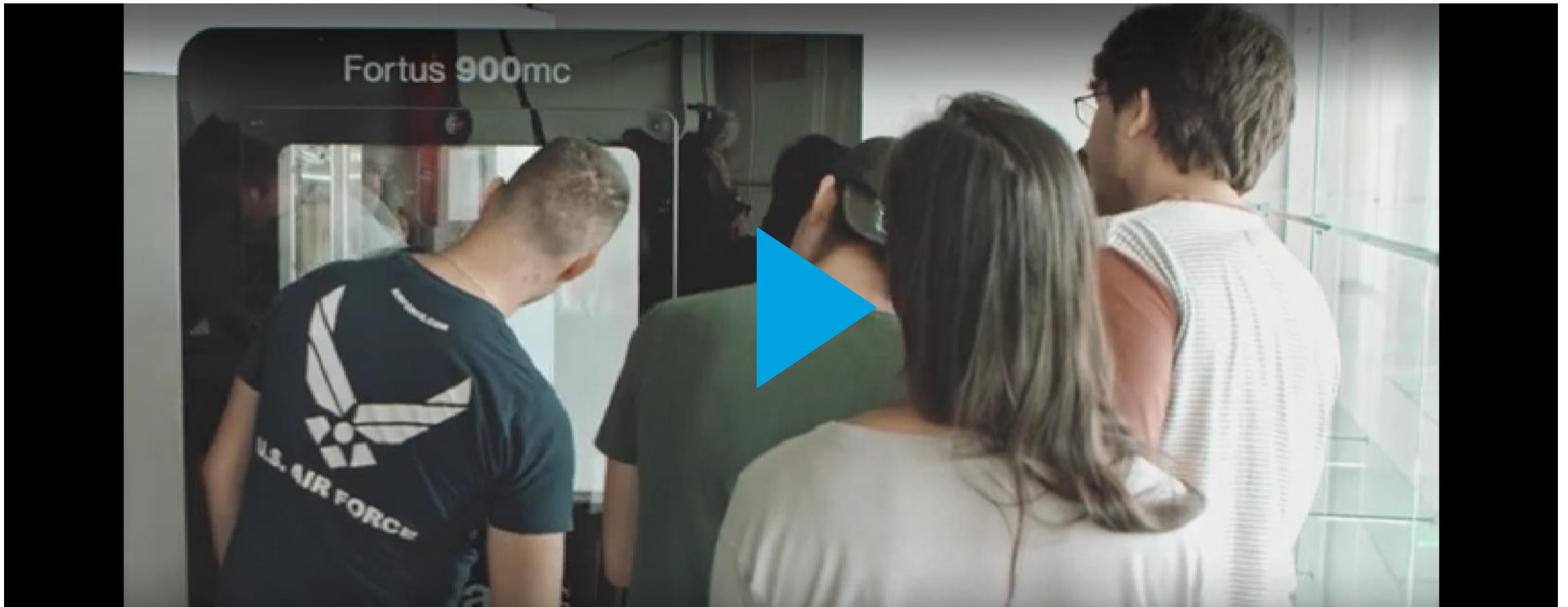
Chris Hill,
Iowa State

*“The importance of certification is that it (hopefully) provides a recognized and respected standard of accomplishment. That standard is used by industry to evaluate the level of training of their employees. The last data that I saw showed that 98% of our graduating students were either **employed in their fields** or enrolled in graduate school within 6 months of graduation. We would like to think that certification contributes to that statistic in a meaningful way.”*

Steve Chomyszak,
Wentworth Institute of Technology

Customer Highlight – MSU Denver

MSU Denver Teams Up with Stratasys and Lockheed Martin to Certify Students' Additive Manufacturing Skills





THANK YOU

For more information, please contact edu.curriculum@stratasys.com