Credentials Overview — CNC Machinist

Credential Options	*Cost Details*
Certified Manufacturing Associate(CMfgA)/ToolingU+SME *recommended SME's Certified Manufacturing Associate (CMfgA) is an industry certification focused on basic manufacturing concepts, demonstrating an individual's potential for high-demand, entry-level manufacturing roles. It was designed for individuals with little or no exposure to manufacturing or those with some foundational knowledge who may not currently possess enough knowledge or experience for more advanced technical certifications. Covering fundamental topics such as shop math, assembly, maintenance, machining, inspection, and more, this nationally recognized certification demonstrates that the individual has a basic knowledge of manufacturing and may be an ideal candidate for entry-level manufacturing employment. After earning the CMfgA, individuals are encouraged to explore a variety of available career pathways in manufacturing. Completion Time: **Testing available year-round; preparation time will vary. 20-25 hours recommended preparation time for online coursework.** Difficulty Level *(Low, Moderate, High, Very High)*: **High.**	Preparation+Exam: $215.00 • Includes 1-year subscription to ToolingU. • Subscription includes all learning modules, exam, and retake.

Credentials & Coursework — CNC Machinist

Higher Ed Coursework (Year 3)		
Course	Description	Approx. Cost*
MAC 101 Intro to Machine Shop	Covers safety procedures, use of bench tools, layout tools, power saws, drill presses, precision measurement tools, and various hand tools related to the machine shop.	$800
MAC 102 Print Reading/Machining	Instructs students in reading and understanding industrial prints.	$800
MAC 110 Intrdo to Engine Lathe	Introduces basic lathe applications which will consist of identifying lathe components and controls, understanding turning safety, calculating speeds and feeds, using various tools and tool holders.	$800
MAC 120 Intro to Milling Machines	Teaches students to identify the major parts of the vertical mill, align a vise, use an indicator, edge finder, and boring head, perform simple indexing, mill flat, square surfaces and slots, drill, bore, and tap holes.	$800
MAT 108 Technical Mathematics	Covers mathematical material designed for career and technical students. Topics include measurement, algebra, geometry, trigonometry, and vectors. These are presented at an introductory level and the emphasis is on applications.	$800

*Training and Higher Ed Coursework may vary based on the needs of the employer and the trajectory of the apprentice. The above information suggests a sample of what the apprenticeship would entail.