



# CNC Programming and Operations

Precisely machined parts are crucial to almost every industry, and with the strong manufacturing presence in Upstate, SC, there's a high demand for CNC programmers and operators. The CNC Programming and Operations associate degree was designed with employer guidance to prepare students for positions as highly skilled technicians. Graduates will become highly sought after candidates for local manufacturing companies and precision machine shops.

During your coursework in the program, you'll learn not only writing CNC programs but also CAD design and analysis applications, creating precision set-ups, selecting tooling and operating a variety of CNC milling and turning centers.

**Learn more about program requirements** and related certificates. Scroll to the degree program and select "display programs."

## PLUS



Tri-County's program is taught in a state-of-the-art, health- and safety-focused facility designed to mimic a typical industrial facility. The modern equipment is in line with industry and evolving technology.



The wide variety of applications and job opportunities with skills gained from this program lead to careers in manual machining, custom machining, precision manufacturing, CNC operator training, CNC programming, CNC multi-axis programming and operation, CAD/CAM, metrology, precision inspection and more.



Many employers are currently turning to us to hire more highly trained individuals for these high-demand careers.



# Career Outlooks and Average Salaries

Job Title	What You Do	Salary			# Job Openings
		Entry	Median	Skilled	
Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic	Develop programs to control machining or processing of metal or plastic parts by automatic machine tools, equipment, or systems.	\$31,749	\$46,259	\$60,814	109
Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	Set up, operate, or tend more than one type of cutting or forming machine tool or robot.	\$27,613	\$38,846	\$60,617	1,156
Model Makers, metal and plastic	Set up and operate machines, such as lathes, milling and engraving machines, and jig borers to make working models of metal or plastic objects. Includes template makers.	\$25,816	\$36,803	\$49,885	3
Machinists	Set up and operate a variety of machine tools to produce precision parts and instruments. Includes precision instrument makers who fabricate, modify, or repair mechanical instruments. May also fabricate and modify parts to make or repair machine tools or maintain industrial machines, applying knowledge of mechanics, mathematics, metal properties, layout, and machining procedures.	\$29,937	\$34,080	\$52,745	765
Computer Numerically Controlled Tool Operators	Operate computer-controlled machines or robots to perform one or more machine functions on metal or plastic work pieces.	\$31,749	\$46,259	\$60,814	109
Tool and Die Makers	Analyze specifications, lay out metal stock, set up and operate machine tools, and fit and assemble parts to make and repair dies, cutting tools, jigs, fixtures, gauges, and machinists' hand tools.	\$34,246	\$59,003	\$74,126	85



## CONNECT WITH US

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[TCTC.edu/APPLY](https://www.tctc.edu/APPLY)

SC WINS Eligible



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# Career Outlooks and Average Salaries

Job Title	What You Do	Salary			# Job Openings
		Entry	Median	Skilled	
Tool Grinders, Filers, and Sharpeners	Perform precision smoothing, sharpening, polishing, or grinding of metal objects.	\$26,070	\$39,278	\$81,805	3
Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic	Set up, operate, or tend lathe and turning machines to turn, bore, thread, form, or face metal or plastic materials, such as wire, rod, or bar stock.	\$34,331	\$43,481	\$61,113	17
Rolling Machine Setters, Operators, and Tenders, Metal and Plastic	Set up, operate, or tend machines to roll steel or plastic forming bends, beads, knurls, rolls, or plate or to flatten, temper, or reduce gauge of material.	\$37,231	\$56,727	\$61,161	45
Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic	Set up, operate, or tend machines to extrude or draw thermoplastic or metal materials into tubes, rods, hoses, wire, bars, or structural shapes.	\$34,055	\$47,816	\$59,189	100
Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic	Set up, operate, or tend heating equipment, such as heat-treating furnaces, flame-hardening machines, induction machines, soaking pits, or vacuum equipment to temper, harden, anneal, or heat-treat metal or plastic objects.	\$26,777	\$38,258	\$63,287	25
Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic	Set up, operate, or tend grinding and related tools that remove excess material or burrs from surfaces, sharpen edges or corners, or buff, hone, or polish metal or plastic work pieces.	\$32,582	\$43,135	\$58,686	53



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