Computer Numerical Control (CNC) Programming and Operations Associate in Applied Science

Mission Statement:

The mission of the Machine Tool Technology program at Greenville Technical College is to provide the college's local service area with a pool of skilled entry-level Machinist, Tool Makers, CNC Operators and CNC Programmers. The program will graduate students who can enter the workforce with little supervision and will be trained on equipment that is current with industry.

Entrance Requirements:

Acceptable placement test score(s); plus high school diploma or GED

Type of Program:

Day or evening

Employment Opportunities:

Large and small machine shops, job shops, and manufacturing companies.

- This program teaches machine controls, setting of tools, machine limits and capabilities; creating, editing and debugging high-tech machine programs; focuses on writing programs both manually and utilizing high-end CAD/CAM software; and teaches the basics of 3-axis machining and turning centers all the way up to multi-axis machining and turning centers. This program will also teach the basics of Rapid Prototyping.
- This associate degree program meets the academic requirements of the South Carolina Chapter of the National Tooling and Machining Association Apprentice Program.

Recommended Program Schedule

First Semester – Fall

MTT	120	Machine Tool Print Reading	3.0
MTT	121	Machine Tool Theory I	3.0
MTT	122	Machine Tool Practice I	4.0
MTT	105	Machine Tool Math Applications	3.0

Second Semester – Spring

MTT	243	Advanced Dimensional Metrology for Machinists	3.0
MTT	250	Principles of CNC	3.0
MTT	251	CNC Operations	3.0
MTT	258	CNC Machine Tool CAM	3.0

Third Semester – Summer

MTT	252	CNC Setup and Operations	4.0
MTT	254	CNC Programming I	3.0
MTT	145	Machining of Metals	3.0

Fourth Semester – Fall

MTT	253	CNC Programming and Operations	3.0
MTT	255	CNC Programming II	3.0
MAT	170	Algebra, Geometry & Trigonometry I*	3.0
ENG	165	Professional Communications*	3.0

Fifth Semester – Spring

MTT	260	Advanced Multi-Axis Programming and Operations I	4.0
		Humanities/Fine Arts elective**	3.0
		Social Science elective**	3.0
		General education course**	3.0

Sixth Semester – Summer

MTT	241	Jigs and Fixtures I	2.0
		or	
MTT	299	Research in Advanced CNC	3.0
MTT	245	Rapid Prototype Setup and Operations	3.0
MTT	261	Advanced Multi-Axis Programming and Operations II	4.0

Total Required Credit Hours: **69.0 / 70.0**

*General education course
** See faculty advisor for specific elective recommendations.

Visit https://www.gvltec.edu/gainful-employment/ for important information about the educational debt, earnings and graduation rates of students who attended programs.